Understanding the Antecedents of Project Management Best Practice – Lessons to be learned for and from Aid / Relief Projects

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Understanding the Antecedents of Project Management Best Practice – Lessons to be Learned from Aid / Relief Projects

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DECLARATION

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of thesis is the result of work which has been carried out since the official commencement date of approved research program; and, any editorial work, paid or unpaid, carried out by a third party is acknowledged.

Signed:

[Signature]

Paul Steinfurt

April 2010
Acknowledgements

Where does one start and finish in the acknowledgements of the work that has gone into the journey that is this PhD thesis. The journey, I suspect, started very early in my life of action learning. The research started over 40 years ago, but was brought to formation after an approach from a very wise colleague of mine.

Professor Derek Walker convinced me to take on this PhD action research and we saw it through together, as we had earlier projects going back over 30 years, as colleagues, and now friends. We were not alone, we benefited from eminent company but my first acknowledgement must, of course, go to Derek. Neither of us really knew what he influenced me to taking on here, I suspect. Well certainly I did not know what I was getting into in the full demands of this research. I never thought to do a PhD; it was not on my horizon. Here I was approaching the latter years of my working life and looking for a break, and a good surf break at that.

One must wonder why any one person would take it on – the challenge of it, the vagaries of it, the distance, the logistics of it, the philosophy to address it, the praxis and frame to cope with it, the resources to stretch to it, the multiple worlds and worldviews of it, the pain and sacrifice within it, the paradigms and methodologies to bring together for it, the resilience from the risk of it, the structure to resolve within the chaos, the energy to press on regardless, the time to do it all justice, the experience and belief it could be, the mind and others to see........

“They said it couldn’t be done, but the darn fools didn’t know that, and they went out and did it”

So who were those fools apart from me? No they were not fools; they were amongst some of the finest people one could ever know. This was a serious journey into risk and no promised personal reward. It was a journey for others and for communities and better practice out there in our world of project management and beyond. Who were the people who supported me and this journey and how can I or even we thank them sufficiently? They are possibly too numerous to mention but it is a matter of thanking as many as can one see and note within the bounds of this thesis.

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Abstract

A recent series of natural disasters has triggered increased research interest in project management research and how to improve delivery of critical aid relief projects, or project in general, in high risk situations.

There has, however, been limited research work on the ground into how to improve delivery of these kinds of projects from an effective and practical project management perspective that fully recognises the challenges and difficulties that inhibit project management best practice being applied to these kinds of projects.

The project management profession has a long record of developing academic theory and best practice. The Project Management Institute is the largest project management institution in the world with over 280,000 members and it has the most widely recognised Project Management Body of Knowledge, otherwise known as the PMBOK. This has been refined several times however its content still has limitations, as pointed out by several project management profession thought leaders and as outlined within this thesis.

The PMBOK’s formulation was geared to responding to highly visible and tangible projects such as those found in the construction, aerospace and shipbuilding industries. There is an appreciation that management of some projects, particularly those with difficult to define sub-goals (beyond the obvious highest level goal) requires managing complementarities of high levels of flexibility while maintaining structure. Managing projects in a particularly chaotic environment appears to best characterise the experience related in delivering aid projects in post-disaster situations.

Each of these above themes assumes a level of project management capability and supporting infrastructure that may not be present in situations of chaos and devastation that occur immediately after natural disasters. Further, organisations that mount the relief and recovery projects may not be experienced or traditionally well equipped in project management expertise terms to successfully manage these projects without incurring a lot of waste and inefficiency.

Also, it has become apparent that traditional project management methods, such as those addressed by the PMBOK, do not necessarily work well in these environments. Thus, a valuable topic of research for project management theory is uncovering the tacit assumptions regarding PM performance, namely the antecedents of PM best practice. What is it that needs to be in place to support and enable project management? These antecedents provide an infrastructure for PM development.
To summarise the research, this study explores and makes explicit, often tacitly held assumptions that underpin sound PM practice that forms the required infrastructures for PM practice to be achieved. It does so by comparing best PM practice (as experienced, evidenced and demonstrated in practice) with PM practice on distressed and troubled projects that takes place within the context of post-disaster relief projects where there is a notable absence of characteristics of required identified PM antecedents. It reviews not only traditional project management, but equally, international aid and development methodologies such as the ‘Logical Framework’, Project Cycle Management and Evaluation and looks at the best in each.

This research works to resolve that there are a set of practices that may be universally applied in principal, with actual implementation dependent upon the project context. It also concludes that, if recognised, these contexts can be planned for and strategies and processes applied to minimise their disruptive influence and enable a positive outcome.

The understanding of the antecedents to project management was best understood through pragmatic action research, and within that, reflective practice and soft systems methodology in a structured, but open way. It facilitated engagement with people who have been enabling projects to work in any way possible, in challenging environments and contexts. Through that good practical experience was evaluated and then validated through very rigorous cycles of research to objective outcomes. The methodologies and models that resolved this enabled sensible, workable, impacting outputs, both internally within practices and externally through different environments and contexts.

The first of many needs realised was that of the importance of front-end to projects, of defining objective outcomes, what outputs are needed to deliver those outcomes, what activities are therefore required and what assumptions underlie these. A methodology for rapid assessment of environment, context and identifying these outcomes was enabled through this. Key to this was in understanding the importance of the stakeholder engagement.

The understanding of the project management and action research methodologies resolved through this have seen the test of the elements of earth, water and fire, and more importantly, effective practice in response to re-occurring disasters. The keys that emerged through these are identified and clarified in this thesis. The rigour of the repeating, interlinked and dependent cycles of project action, outcome evaluation with reflection and significant validation throughout this thesis enabled significant outcomes and lessons. These are addressed in the extensive and exhausting, if not exhaustive, practical action research now detailed in this thesis.
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Chapter 1 – Introduction

“Research is a type of disciplined enquiry undertaken to resolve some problem in order to achieve understanding or to facilitate action” (Lincoln and Guba, 1986)

1.1 Chapter Introduction and Research Background

This chapter introduces the thesis topic, its rationale, how it is structured to resolve the research questions posed and in doing so it outlines gaps in current knowledge that need to be explored and resolved given the context of the thesis topic.

The key question applied through this research is “how do we understand the antecedents to project management best practice?” and the question which works directly in support of this in this thesis is “how do we learn from aid / relief projects?”

These are indeed very challenging questions as they encompass not only project management practice but also the need to understand its antecedents and, in this thesis in particular and significantly, the lessons we may learn from the aid / relief project world.

This research question is important for a number of reasons that are outlined later within this section. The choice of using aid/relief projects as a platform for exploring what needs to be in place (the antecedents) before project management best practice can be realised is dealt with in more detail in Section 1.2.1 and further rationale for it is presented in section 1.3 in this chapter. Having established that
there is a research topic that needs to be addressed there remains a question about
what knowledge is available in general, and within the project management
discipline, to help address the identified problem. Section 1.4 outlines the
knowledge gaps, more specifically project management’s poor ability to recognise
techniques used for over four decades within the aid/relief business sector and that
sector’s poor ability to apply many of the project management techniques that have
been developed over that period. Discussion of this classical gap is bridged in Section
1.5 that outlines literature that is further addressed in Chapter 2. Having established
a research need in general and a particular knowledge gap and relevant literature to
address this knowledge gap, research objectives and questions are outlined in
Section 1.6 and this is followed by a discussion of the methodology and planning of
the thesis.

There has been research carried out on project management practice with
significantly more on project management, but there is significantly very little on the
antecedents to project management per se, even less, if any, on the antecedents to
project management practice and even less again on those in aid / relief projects.
The challenge is immense and universal. Of their very nature disasters bring
destruction and chaos. Project Management is designed to bring order from chaos.

Disasters have been occurring since the world began and in fact it is likely the earth
was formed by some previous disaster. They are the unfortunate and tragic
occurrences of natural or human risk events with traumatic and negative effects on
people, communities, buildings and infrastructure around the world.

A disaster can cause extensive loss of life, livelihoods, property and confidence. It
may be a cyclone, earthquake, tsunami, bushfire, floods or severe storms, civil
crime or war, whole cities or communities may be destroyed and the infrastructure
barely recognisable. Large numbers of people may be dislocated and traumatised.
Serious security, safety, health and welfare risks, urgent and effective responses are
needed for recovery and reconstruction but, typically with limited resources, within
groups having differing values, with high ongoing risk and serious communication challenges.

People, leadership, communities, governments, non government organisations, and more need to respond to a wide range of very difficult problems and, as a key part of the response to these, to be able to access, understand and implement effective strategies and realise feasible outcomes with a diversity of stakeholders.

Of their very nature projects are designed to bring improvement, feasible outcomes and learning leading to positive and sustainable impact on and within the environment for communities, with effective knowledge gain from both those communities of practice and communities involved. These are real challenges for all range of organisations and, in this case particularly, Project Management (PM) to play an essential part in the recovery and be able to respond, engage communicate, to resolve, plan and achieve secure outcomes for a range of people and communities in a state of urgency.

The response should employ, at minimum, effective methods and facilitation to rapidly gain an understanding of the real needs of those devastated people, communities and environments to recover and rebuild (communities and buildings, intangibles and tangibles). Those leading the response will need to work closely with local communities, donors or sponsoring agencies, government organisations, social and building workers and others to rapidly assess feasible planning and achievement of their goals to outcomes and for each group to sustain feasible projects to deliver, or bring back, value to these environments. What to do, where to go for the ways to work here?

1.2 The Research Settings

The PM methods, their necessary antecedents and the way to facilitate order from chaos, hope from despair, need to be robust and effective and rapidly engaged, but
at the same time not deny the long term goals that will need to be facilitated over
time to reach satisfactory delivery of sustainable outcomes. What to do? How to
rapidly assess the necessary organisation and feasible outcomes to recovery? How to
engage and with whom to engender the best communication necessary with the key
stakeholders to resolve what is most needed?

What are the key project success factors and methods to employ to get there with
certainty? Which methods to apply to show the way to people desperately
needing real outcomes so they can see and work together and in confidence? What
may or may not be in place to enable these to work and how to proceed sensibly
forward with the key stakeholders to resolve the delivery of outcomes despite the
high risks in the environment already experienced and still possibly in place.

Which programmes or projects to prioritise, what resources are really available? A
whole list of questions will need rapid and appropriate responses and solutions. At
the same time the programmes committed to will need to be set up to be evaluated,
monitored and governed to completion and keep all range of participants and
providers in sufficient communication to facilitate the agreed outcomes.

1.2.1 The Organisations and Methods under study

PM, in all range of forms, is being used increasingly to plan and achieve the most
appropriate long and short term response to disaster recovery and reconstruction
around the world. The form of PM to best deal with these challenging demands
needs to be very robust, simply workable and understandable by a range of people
in all range of cultures and usually working with minimum resource. Some forms of
PM have proven relatively effective in the context of the international relief and
development area for decades now. Whilst it is PM of somewhat different
implementation than the more commercial or industrial form, a vast array of
organisations from the United Nations, World Bank, Ausaid right through to small
Non Government Organisations (NGO’s) apply it, pragmatically, in a plethora of
challenging situations.
PM, of different form, is also used extensively and effectively in all range of industries, enterprises, governments and groups in what to date have been more stable environments. PM used in international development relief projects and the standard PM methods and applications have evolved quite differently overall but have similarities in core form. It may take some rigorous work to realise the potential synergies and then realise the key differences, the reasons for these and the best possible combination or uses of same.

The most workable combination from the wide ranging use of PM around the world has great benefit and potential, not only to these areas of very high vulnerability and need, but for projects in general. We can draw from the lessons of different cultures and different attempts, successful or otherwise, over millennia. It has been argued elsewhere that PM was used in more rudimentary forms dating back to projects such the Colosseum in Rome, the Pyramids of Egypt, and eons of warring and peaceful pursuits and beyond. There are some core aspects of whatever form of PM has been used that are constant to all cultures and projects and there are, naturally, differences. We can learn from all of these.

Presently there is a range of differing methods which are used from part to part and to varying, but not recognised, agreement or effect. Typically the methods fall into two main groupings which are best summarised as those coming from the international development sector and those from the traditional PM world.

These two different paths of PM and method development have travelled parallel paths for nearly 40 years now with varying success in their own fields, but their paths have rarely crossed even though the players from both sides would, or at times, may have. Could it be that Rudyard Kipling could have been writing of these two parallel, but as yet not intersecting, processes when he famously stated that “East is east and West is west and never the twain shall meet”? However, given the size and call of this need, it is important and possible to resolve how they may meet and work together to enable the strengths of each to synergise, to enable the best
combination of both in order to realise the best application of the antecedents to, and value of, project management practice.

Project Management (PM) was implemented professionally on major projects in the construction, military, I.T. and then further industries over the last century and was practised to effect in earlier forms of development for millennia going back to the Pyramids and the Colosseum. PM is now implemented on projects, major and minor, in all sorts of programmes and organisations in most parts of the globe.

The Project Management Institute (PMI) was formed in 1969 in response to the realisation of the value and potential of professional project management and presently has over 285,000 members worldwide (see www.pmi.org). PM globally would be presently engaged, mostly effectively, on projects or in enterprises to the value of trillions of dollars.

For a range of reasons, the environment of the disaster response is one of considerably higher risk than that of most projects. The higher risk areas where natural disasters are more likely to occur are usually inhabited by the poorer populations simply because they cannot afford to live elsewhere. Thus, of their very nature, disasters affect the poorer and underdeveloped countries and communities. The resources that otherwise may be available for PM in more developed areas of the world have not been engaged very successfully in the implementation, research and resolution of the best ways forward in the majority of post disaster situations.

It is only natural, therefore, that the key groups and PM methods which deal mostly with these tragedies are the international development or aid organisations already in place in the higher need and risk areas.

The response to both disasters and the reconstruction needs to function effectively in the environment and culture of the location suffering the disaster. The PM methods and people to be deployed in this reality should be able to understand and
work within these frames and demands. There are indeed PM methods, people and ways which are significantly more developed for third world locations through the international development sector and agencies such as the United Nations (UN), World Bank, Red Cross, US Aid, Ausaid, the European Union and many more.

These methods have been developed and widely applied over the past 40 decades, the most used being the Logical Framework Method (LFA), known as “Logframe” (Earle, 2003; p270, Gasper, 2000, Baccarini, 1999), which was developed by Leon J Rosenberg and was first used by US Aid in 1969 (which is coincidentally the same year as the forming of the PMI). Logframe and its evolutions into Project Cycle Management (PCM) (Ika et al., 2009) Results Based Management and Goal Oriented Project Planning (GOPP) (Speckley and Union, 2004) have been, and still are, used by a very wide range of implementing agencies including those referred to previously such as the UN and World Bank as well as Non Government Organisations (NGO’s) and Government and private organisations.

LFA was developed essentially in the international development area for clear definition of the project activities needed to effect the deliverables and realise the outcomes to goals. It is particularly useful in defining outcomes with key stakeholders, but is also recognised for being typically inflexible once projects are in progress.

Conversely and not surprisingly, the traditional PM processes such as the PMI / Project Management Body of Knowledge (PMBOK) based ones are considered effective in managing projects to stable outcomes, but can be challenged in the early definition or “start-up” in engaging key stakeholder and the value realisation in rapid response or most international development type projects where environment is less stable. They key is to see how to combine the best of both worlds and to make them work best in a simplified effective defining but flexible management process working to resolve and achieve the project challenges of a rapidly changing world.

Goal setting, planning, monitoring and evaluation are generally recognised as key success factors. The LFA or Logframe method essentially defines a goal by a
statement of outcome(s) and then the listing of the outputs or deliverables and measures that will realise those outcomes. So the realisation of the goals can be seen and planned as well as communicated for agreement or resolution. All of the above needs to be done with a realistic view of the risks at each level.

It is seen most clearly in outline as;

- Goal
- Outcomes / Benefits
- Outputs – Deliverables
- Activities

The realisation that this process should work practically working down through each level commonly known as ‘top down’ or inductively and also working up ‘bottom up’ or deductively at the same time and enable very good working at any level and at the level of competence, comprehension and commitment through organisations at programme or project levels makes for a solution in theory and practice.

The process of an objective being defined by outcomes to be measured by deliverable activities in a project plan with contingency for risk can then be worked very effectively, universally up and down the hierarchy or work breakdown structure of any project, programme or organisation. We will expand on these points in the following dissertation and review resolutions to these classic problems.

1.2.2 The PhD as a vehicle

1.2.2.1 The PhD expected contributions

There are a number of outcomes researched and resolved, but probably the most key in this PhD is that of the essential process enablement outlined in the following summary.
Within any culture, organisation, group, programme, project or team effort and realisation there are some key factors which are simply essential and methods with process to enable those best and to enable the best outcome.

These are developed around the key success factors and the project organisation processes which evolved most effectively in this thesis.

Any project needs an objective to be shared, comprehended by all key players and that objective needs to be feasible. The key stakeholders to the organisation need to see the vision or goal in their own terms they understand and modify that to what they can and will commit to work to. There will be different points of view at different levels of each of the organisations testing the feasibility of the goal and the outcomes necessary to achieve or sustain that objective. Then there will be the process to initiate, plan, commit feasible deliverables, monitor their progress and evaluate the outcomes, at appropriate reviews.

1.2.2.2 Personal context – role and experience as a valid observer/participant

By way of introduction in respect of background and personal context in this action research, I first worked in Project Management (PM) in 1970 in government and defence projects in Western Australia then in Calcutta, India in 1973 with a group responding to multiple disasters, then in 1975 for three years very solid work in the reconstruction of Darwin, the capital city of Australia’s Northern Territory, which was destroyed by Cyclone Tracy.

Since that time and collectively, I have worked in Project Management for 40 years now, for the last 25 years as a director of a Project Management Group planning and delivering some of Australia’s foremost projects in the design and construction, IT, health, government and general industry. More recently, over the past five years, I have also worked in a number of organisations, programmes and projects in post tsunami recovery and reconstruction in Aceh and other Indonesian Islands.
In this time I was also involved in PM education at a workforce training, undergraduate and post graduate level at RMIT University in Melbourne as well as being, at one time, chairman of the development committee for their first Masters in Project Management course here. It was indeed RMIT and my colleague Professor Derek Walker who strongly influenced me to do this PhD Research Thesis.

In this research, I was able to access literature from both academic and institutional development methods, for the best theoretical, and most practical, research methods and realisations to enable such demanding objectives. I was, possibly most importantly, enabled through the methods outlined following to see these disaster and aid projects through the eyes of those who have worked them most extensively. These key players are working at the forefront of the cultures, geography and challenges of the post disaster and aid worlds and are continually resolving responses and methods, with due process, and regard for the urgency and humanitarian demands of the projects at hand.

In my 40 years in professional project management, I have seen dramatic and very effective growth in its development and application, if not in its research. At a personal experience and practice level I have worked from the early day challenges of trying to get key project people to read, understand, work to and review project planning and management to seeing whole organisation move, over time, to be project centric and work to the PMBOK and other PM and programme standards around the world.

I have no doubt whatsoever that the two parallel but different methods from the two very different worlds of PM can work together. Those who enable that and the methods they can work with can bring significant benefit to others and themselves. With that may come significantly better practice and outcomes in not only this most unresolved area of PM disaster, but also in the whole range of project, programme and general organisation outcomes around the world.
To that end, this research has been most fortunate to be able to access globally the academic, international development agency publications, project management institutions and practice available. Within that, the theory, experience, literature and methods for the best and most practical way to see these disaster projects and projects in general has been researched through the eyes of those who have worked in them extensively. From that, the many different and tried ways to respond effectively and thoughtfully, but with due process and regard for the urgency and humanity of the projects, solutions are workable.

The confluence and pronounced need of all the above events is what this dissertation is about. It has been worked through for forty and three years in the objective, hypotheses, literature review, action research, resolutions, methods and findings, but it is much more than that. It is the working to this end through the span of time of the life of the world’s largest Project Management Institute, the span of the formative years and growth in practice of PM and LFA and the formative time of development of PM.

This research and outcomes of the post disaster response, recovery and reconstruction is very timely. This work and that which led to it in terms of global research, literature, practice and learning is very much of this time. The bringing together of the contrary risk of nature and the key success factors of the response, together with the best methods with which to do this in different environments, is the focus and proposed outcomes of this research project.

This research has been extremely demanding, in its working environment and in challenging project management, its antecedents and even its geographical areas and context of real need. It has been rigorously worked for the most effective realisation of its research objectives and questions to outcomes in changing environments with a wide range of stakeholders to look to enable and achieve workable resolutions in the very harsh reality these projects need to carry through.
1.3 Rationale for the research

1.3.1 Project success and failure as an ongoing debate

What is project success? How do we define project success and design performance measures that allow us to recognise the degree of success attained?

There has been a great deal written over the years about project success, project management success and performance management to deliver success. A number of papers relating to critical success factors emerged during the late 1980’s—for example see (Pinto and Slevin, 1987) and de Wit (1988) who viewed success as being judged by the degree to which project objectives have been met. These views centred on success of project management delivery processes and also acknowledged that project success is also a matter of the project stakeholder’s perception of the value (in their terms) of what was delivered. Project success was eventually seen as that judged successful by the key stakeholders and project management success as that of the key project management measures – two very different measures.

1.3.2 Industry rationale - i.e. stakeholder rationale and project evaluation

The next key issue to address is who the key stakeholders are and who may manage their key outcomes and how. Typically they would be the managers and the resources needed to make it all happen, but in most post disaster situations it will need serious input and commitment from the people affected, stakeholders, government and donors.

There are usually different points of view from different levels in the “food chain” or in this case the organisation chain so how do we process that in our system for solution? How do we make it all work for the best outcome for the goals of the key stakeholders and to achieve satisfactory and hopefully sustainable outcomes?

The process resolved needs to be full and robust and workable at different levels of very different organisations. It needs to be able to resolve outcomes with different points of view, but realise goals through the delivery of the values that each group
understands and will work to. It needs to identify and engage sensibly and sensitively with key stakeholders who often hold quite different cultural / value system beliefs, communication media and languages.

It needs a workable connection between top down commitment and bottom up planning. It needs essential tools and processes that clarify and give understanding and enable workable communication of plans, action, outcomes and what it means to committed stakeholders.

A process to achieve all of this would be worth all the effort needed, but whilst there has been precious little research on this combination, as previously outlined, a wide range of very impressive organisations have been working different parts to success in different ways for quite some time now. In overall view this is best termed ‘project evaluation’, but it needs the best integration of the most working and understood project processes in place for these projects around the globe.

This is where the LFA / Project Cycle Management (PCM) methods and the PMBOK / traditional PM methods can potentially combine to bring together the key success factors for any project and hence enable the so desperately needed solution.

The solutions need to be understandable, effective in all range of environments and contexts. They need to be able to engage at a range of levels and engage effective communication and relationship to goals, risks, outcomes, deliverables, values and have them work in together to achieve the whole.

Most disasters and projects work over the tyranny of distance. Therefore the systems supporting these solutions need to be able to relate plans and progress to a range of critical success criteria in a consistently understandable way to a whole range of differing points of view. They needs to do this at different levels for different organisations but still enable the key success factors in an effective process and relate key goals, plans, risks, outcomes, to deliver what is agreed or resolve if it cannot be at any time in any place.
1.3.3 Organisational Rationale / Leadership

Organisations anywhere the world over suffer greatly from the problem of moving from a strategic goal to programme or operational goals to project goals. They get even more confused and, in fact, many projects are often committed to but are not able to be seen through because their goals were never really aligned with the overall group goal and key criteria of the sponsoring organisations and their key stakeholders. The leadership needs for this varies in different contexts and the more recent understanding of the need for integrity and empathy in any of these situations and how that may call on authentic leadership and more emotional and social intelligence in both the project managers and the necessary processes is also quite a consideration.

The greatest loss here is the necessary connection and relationship between the overall goals, the programme outcomes and the final deliverables. Numerous studies and extensive work around the world in all areas goes into the ways of aligning projects to organisation and stakeholder goals, but little indeed, in any environment, has proven successful in this.

This problem is further exacerbated in a post disaster situation. It is well known and agreed that the key part of any project is its initiation. Within the disaster scenarios outlined in this chapter, a rapid assessment of the environment, its stakeholder’s urgent needs and wants, sponsoring organisations resources and goals and the feasibility of a project or programme to a sustainable outcome that will satisfy the key stakeholders is so important. Unfortunately this process is so often overwhelmed by the other demands of immediate post disaster responses where lives, safety, health and other most immediate needs are at threat. The crucial point here is that if the rapid assessment is not done effectively the whole project or, even environment for the victims, could be further at risk and their chance of success rapidly declining.
The harsh reality is that either you get it right first time in very difficult circumstances or you face failure of increasing proportions. Therefore, within this thesis, a constant and key focus necessarily has been on getting it right at the front end before the project has been committed, and in the best way for feasible outcomes and satisfied stakeholders, as well as the ongoing governance and project management.

The imminent and eminent necessity then is to understand what these essential processes, success factors, outcome relationships and progressive monitoring and evaluation need to be.

They revolve around the necessity for clarity without complication, the overall steps in any situation, which if not done will leave the project seriously at risk and remember we are working in a very high risk environment to start with. However on a more positive note they can lead to the understanding of what to do, essentially, and how to do it quickly and effectively on any project anywhere to enable feasible and sustainable outcomes.

The realisation of how to recognise key stakeholders goals may be defined by outcomes and measured by deliverables at any level and then those outcomes to goals being related through deliverable understanding. This can then be through different levels; strategic, programme and project, and in gaining common commitment and communication.

How can people of diverse backgrounds, understanding and values best relate the collections of goals, outcomes and deliverables at their recognised level of competence to bring about the best relationships between whatever levels of projects or organisations exist or can be resolved? These outcomes may be qualitative and quantitative, tangible or intangible and in any language, measure, picture or even story form.
How can effective communication be achieved at the level of competence and within the cultural values of the key people in each case? It is a universal challenge – arriving at suitable communication at the necessary level of competence and then relating and connecting through projects, programmes, organisations or teams to get significantly better alignment and less risk than otherwise. This again needs to be worked through in the chapters to follow.

As stated earlier, the other aspect extensively explored in this thesis is the actual project application by key players in the field of project management in the aid and disaster response world. This research activity clarification is approached using action research, reflective practice and, most formatively one of its derivatives, Soft Systems Methodology (SSM) (Checkland, 1994) which was first developed by Checkland in 1981 for complex or messy problems and people issues in project research and resolution. The author of this PhD thesis worked in the field in post disaster programmes as a reflective practitioner with a wide selection of experienced people and organisations in these areas.

The outcomes of this specific SSM action research have an engaging role and hopefully valuable interaction and validating of the development of antecedents and project success factors, processing of success criteria and methods over all range of projects practically, academically and globally.

The background to SSM will be set out in the following dissertation but a brief background at this point is that SSM was developed from general systems theory last century for the harder, material or engineering type systems. The term “soft” in respect of systems was defined in response to the realisation that not everything that affects an outcome is a material or hard part of the system. It was realised, in fact, that the more intangible less material goals or issues can often have a greater effect on the outcome than the obvious and hard or material ones.

Soft systems methodology can provide the facilitation capacity to bring out issues previously not seen as necessarily ‘hard’ or tabulated or ‘to the fore’ because they
were messy but nonetheless very important and impacting. It also brings out the flexibility and communication needed in project problem solving to much better effect than the positivist or formal systems theory and processes previously engaged. These paradigms can and have delivered value, in research which is not context sensitive, where there can be separation of the researcher and the research objects and where there is, and can be, an emphasis on quantitative methods and impersonal interactions.

Most projects, and particularly post disaster programmes, are of their very nature messy and often the most important issues involved may be the intangible. The traditional more formal and inflexible industrial project management methods are just not able to effectively give understanding and communication in these situations. They were designed and developed for stable long term projects. But now the world and its environment and consequent challenges are changing at an ever increasing rate so that flexible systems which can deal with the softer or more intangible issues are more effective all round.

Very effective insights, stories or series of “rich pictures” are evolved and developed as part of a seven stage definition, resolving and planning to problem solving process which is the backbone of the soft system methodology.

The understanding of project success is detailed in the following chapters but for now let us define it as outcomes achieved within the criteria set which ultimately result in stakeholder satisfaction and, in this case, a sustainable future.

The context of aid projects is interesting in that the funding body is not procuring the outcome for their particular purposes, but for those worked sensitively with and for the community they are donating to. In these post disaster situations the clients may be multiple because of the complexity and pressures the urgency brings about. But we need to be sure who we see as the client. Typically here it is often seen as the community, but can also be the donor who may also be the aid agency. All of that immediately brings different dynamics into the resolution of the problem and the planning of the solution as will be brought out to follow.
This brings the need for a robust, proven but stakeholder and context sensitive, research paradigm. Extensive research of suitable paradigms, related epistemologies and methodologies, in reflective overview of the research processes available worldwide was reviewed. Action research with its rich history in research in technical, practical and community projects was seen as the most appropriate available. Action research also presents, as part of its constituent family of research methodologies, a wide range of aligning developments including, but not limited to; SSM (Checkland, 1994), evaluation (Patton, 1999, Patton, 1990), action science (Raelin, 1997, Lauriol, 2006), critical action research (Sankaran, 2007b, Nielsen and Nielsen), pragmatic action research (Calori, 2002, Crist et al., 2009, Johansson and Lindhult, 2008, Attwater, 1999) and critical pragmatic action research (Johansson and Lindhult, 2008, Brook, 2004, Kadlec, 2006).

1.3.4 Individual rationale - my career span

Much has been researched and written globally and academically in recent decades of the critical success factors of projects and project management and the author has also previously visited, reviewed and reflected upon projects such as the Colosseum, the Snowy Mountains Scheme in Australia and several contributions to the history of projects over time and through the world. The value of these projects in monetary terms alone is in the region of 4 billion dollars and these projects have been amongst some of the most notable in Australia and region. The epistemology of these projects and that passed onto others within the communities of practice that worked in them is interesting, but not as robust as this research need now be.

What is to be viewed is the vast range of quite different ways of scoping, planning and managing projects and their relationship to organisation and organisations in general most typically by programmes. The world’s largest PM institute the Project Management Institute (PMI) (see www.pmi.org.au ) has arguably the most developed set of methods in PM (being the Project Management Body of Knowledge (PMBOK)) and standards in Programme and Organisation Portfolio Management. There are, however, several other well resourced and developed methodologies or standards in Project and Programme Management around the world. Most
organisations these days have their own developed project management methods and applications and these vary extensively in use and benefit.

Wikipedia, interestingly, lists a large range of Project Management “industry” methods and processes, but completely omits the vast range and application of international development PM methods such as Logframe and Project Cycle Management to name only a few. They do list elsewhere the key process most used in international development projects, known as “Logframe”, but do not refer to it as project management.

This lower level of awareness, research or understanding in this area from the traditional western project management community is even otherwise interesting in that these other methods have been working from their user’s point of view better than the more commercial ones for decades, and remain so.

The European Union, World Bank, United Nations agencies and so many other organisations collectively manage trillions of dollars of programmes of projects each year using methods that the industrial or commercial PM institutes and groups in general have had little involvement in traditionally. The even more intriguing aspect of these methods is that, by design, they are more robust, resilient and proven in application in changing or challenging environments.

The world is an increasingly changing environment, both in the natural sense of climate change and associated disasters and in the financial sense such as the most recent global financial crisis. Standard industry, government and commercial project management methods were developed within a relatively stable framework and are not typically designed for rapid change or the challenges that come from a rapidly changing external environment – whether that environment is climatic, financial, political, health or social.

These industrial PM methods are increasingly challenged by the rate of change that projects or programmes may necessarily endure throughout their lifecycle. Most interestingly the international development world of projects has been enduring and responding to these more rapid change aspects of nature and politics for decades.
In that light and as stated earlier, the archetypal LFA was first applied to benefit almost 40 years ago and yet has been minimally addressed by the majority of the traditional PM industry in the commercial, government, defence and industrial sectors PM groups who otherwise lead the understanding and effective application of project management potentially or globally.

1.4 Gaps in the knowledge

There is presently a notable gap between research and effective practice on post disaster PM and its antecedents. This gap is decreasing, thankfully, but there is a growing need for considerably more research in the area, both directly and also in a range of related PM practice.

As stated earlier in this thesis, there are markedly different PM methods within the different worldviews of the range of application of projects and programmes around the globe. These methods can be categorised into the traditional PM BoKs, the international development use of LFA / PCM and Project Monitoring and Evaluation (PM&E) (ref?). These do have similar core processes, if one digs deep enough, but they also have widely differing methods and frameworks. The challenge is to enable them to work together whilst identifying the best of each and their most workable and understandable combination.

The PMI has published its Post Disaster Rebuild Methodology (PDRM) (PMI, 2005) and there are other publications which address this significant need such as the (ref). Whilst being leaders, these publications, in the field are presently limited in use for a variety of reasons. They are commented upon in the following chapters, but there remains a gap in the number and application of resource material on post disaster PM methodology and implementation.

There is also a significant need for better understanding of the need for context in stakeholder engagement for successful change. The problem currently, and the gap that exists in this need, is that most PM methodologies fall short on the extent and understanding and ways to resolve the context and situation analysis.
This is directly related to the antecedents of PM practice and is something that can bedevil projects in their scoping, planning and implementation in any field. This can be even more so in post disaster PM because of the need to rapidly assess, under very difficult circumstances, a range of potentially complex project and community issues and where there are other pressing demands such as life, health, safety, shelter, livelihoods and community leadership, at large. The same problem exists here as anywhere. To get projects right you need to do the right projects, scope and plan them right and the context and local situation can have a large bearing upon that.

The methods to understand the context, environment (physical and community), situation analysis, stakeholder needs and engagement and the range of issues surrounding and impinging on the success of a project, need significant addressing and better understanding. Hence this thesis.

The effectiveness of research into PM to provide support for practitioners, reflective practice, praxis and organisations is constantly improving, but still has a way to go. There has been some very interesting and useful work in this area and there is an increasing realisation of just how important this is for a working practical science such as PM. There is also the aspect that PM is part art, part science and that there are hard and soft issues and understandings to be resolved in this mix which vitally affect project success and PM success at the same time. There remains a significant and pressing need to better relate real world experience and application in PM in research and development. This is one of the prime interests of this research thesis accordingly.

There is not, presently, any significant agreement / focus of the PM discipline and its research paradigm. PM research started firmly in the positivist frame and most of its research has traditionally been carried out in that paradigm. However, more recently, developments in interpretive, critical reality, critical pragmatic, memetic and other paradigms have been engaged in PM research. Whilst action research is more widely accepted in PM, the theories of knowledge gain are not necessarily in line with the bodies of knowledge or vice versa. Similarly, the paradigms and their
related methodologies seem to vary according to the philosophy, culture, location and timing of the research or practice. The time does seem to be beckoning when there is more alignment and agreement as to which paradigms work best in which situations and for what purposes. This research addresses these challenges as part of its overall objective outcomes and raises interesting views and potential directions, in line with other and more extensive research and practice referenced.

There is a consequent and related need for agreed core PM and research methods to be addressed more generally and resolved where practice and research can enable that. Again, in this research, whilst humbly acknowledging that this is but one small step for humankind in that direction, it does focus on that as part of the bigger picture and challenge for this and other research and practice.

There is significant literature available in that pursuit and the main body of that which this thesis works from is the initiative in rethinking PM. The initiative was based in the United Kingdom (UK) and involved a mix of academics and practitioners who shared an interest in PM. The purpose of the initiative was to link reflective practitioners and academics to enable them, through a range of conversations, to re-frame what PM has to offer and how it is enacted and what is its philosophical basis. (Winter et al., 2006b). Those papers, findings and recommendations have been, amongst other factors, very timely, valuable and potentially watershed in their influence on this thesis.

1.5 Relevant Literature

The relevant literature for this research is potentially extensive but, at the same time, not always easily accessible. The academic literature for this work is possibly separate from the practice publications which are presently more extensively developed and used in the field.

The literature can potentially be categorised into a number of frames which can then be compared and, where appropriate, aligned and synthesised as is resolved in Chapter 3. The different categories for the literature review could be as follows;
• Traditional Project Management / Project Success / Practice
• Project Cycle Management / Logframe / Project Evaluation
• Programme Management / Stakeholder Outcome Management
• Organisation and General Management
• Antecedents / PM Front End Process / Context / Environment
• Action Research / Reflective Practice Research / SSM / Pragmatism
• Critical Pragmatic Action Research.

1.5.1 Project success in any environment

In her paper profiling the Competent Project Manager, (Crawford, 2000) addressed the major concern of the field of project management and a recurring theme of the literature as that of project success. She highlighted that there are two major strands to this concern – how success is judged (success criteria), and the factors that contribute to the success of projects (success factors).

However, in their measuring success study, Ramage and Armstrong (2005), found that the various historical methods for evaluating success encounter barriers to performance measurement. Difficulties arise in ensuring that measurement instruments guarantee reliability, validity and responsiveness. To assist in the categorisation of factors impacting on these aspects, they extended the framework developed by de Lancer and Holzer (2001) to produce a more comprehensive categorisation of influences. These may align, coincidentally, with the antecedents to Project Management Best Practice or Success necessary to be in place in the Aid / Relief Project Management research world.

With all of the papers on project success it becomes clear that success needs to be investigated from the perspective of active project team stakeholders as well as from that of their client/benefit recipients and in the theoretical and empirical/practical review of critical success criteria and factors on any project and then, in particular, on aid / emergency relief projects. At the same time success is, overall, seen as a collaborative achievement involving joint-team action to identify problems and solutions to these problems and taking action to effectively deliver action, while
learning from the process and fine tuning strategy and tactics employed in a constructive and reflective way. This leads to viewing project work that leads to successful outcomes as a process of problem solving, action research and learning that triggers a cycle of continuous improvement in PM practice.

But most critically it is defined by the need to define criteria and factors leading to success on any projects and then how that is to be effectively applied to aid / emergency projects.

1.5.2 Project Cycle Management / Logframe

The PMBOK’s formulation was geared to responding to highly visible and tangible projects such as those found in the construction, aerospace and shipbuilding industries. Interest in appropriate PM practices and approaches has also been focussed on project types for many years (Turner and Cochrane, 1993, Shenhar and Dvir, 1996, Shenhar and Dvir, 2004). There appears to be an appreciation that management of some projects, particularly those with difficult to define sub-goals (beyond the obvious highest level goal) requires managing complementarities (Whittington and Pettigrew, 2003, Pettigrew and Whittington, 2003) - achieving high levels of flexibility while maintaining structure. Managing projects in a particularly chaotic environment appears to best characterise the experience of delivering aid projects in post-disaster situations.

The gap that the above thought leaders have identified in PM practice as it is currently evolving in the commercial PM world is mirrored by observations in the field of how aid projects function and a growing body of literature that is critical of PM techniques being applied in what may be viewed as inappropriate situations. This suggests that there are a range of project planning and performance measurement approaches better suited for ambiguous or poorly defined aid or social service delivery projects (Earle, 2003, Sigsgaard, 2002, Ramage and Armstrong, 2005)
1.5.3 Project Monitoring and Evaluation

Aid agencies are required to conform to stringent project reporting requirements in order to satisfy the wide range of stakeholders. Project Monitoring and Evaluation (M&E) information systems (IS), frequently a requirement for funding, are believed to inform the reporting process (Crawford and Bryce, 2003, Shenhar and Levy, 1997). The logical framework approach (LFA or Logframe) is another tool widely used throughout the aid industry for project design and appraisal (Baccarini, 1999), and although much of the literature also promotes the use of the LFA for the purposes of project monitoring and evaluation, it may have proved inadequate (Earle, 2003).

The nature of the research question that interests us is firstly Logframe / Project Monitoring and Evaluation (P.M. & E.) as a process which is used extensively in the aid world and also has the potential to be brought to bear effectively on a whole range of projects previously submitted to the PMBOK (product development/phases/management). What is outstanding about this form of project delivery is it gives a lot more power to learn and drive to those at the working community level yet it is still able to be planned and managed effectively. The further point of interest here is the point of Action Research and involving not just project management experts in Project Management Research. This can then be extended to action learning workshops and even Action Science (Greenwood and Levin, 1998).

It becomes clear that there are different types of projects with very different needs and demands upon them and very different characteristics and, yet, professional bodies continue to assume a ‘one-size-fits-all’ approach is appropriate—the PMI with the PMBOK (PMI, 2004), or in many of the aid projects the logical framework approach (Logframe) that stresses an hierarchical cascade of identified objectives linked to assumptions in terms of goal, purpose, outputs and inputs presented in a how - why chain (Baccarini, 1999) or variations on this theme that take into account means of verification and a time dimension (Crawford and Bryce, 2003).
A more detailed literature review will be developed in the following chapter where the above and connected issues will be brought to the fore and form the frame for the research to follow

1.6 Research Objectives

1.6.1 Research Questions and Propositions

The key research questions were initially seen to be;

**Question 1.**
How can we understand the antecedents to project management practice in any environment?

**Question 2:**
How can we understand the antecedents to project management practice in the aid / relief project worlds?

**Question 3.**
How do we provide PM and antecedent process improvement to bridge the gaps in the understanding of antecedents to PM practice?

**Question 4.**
How can we best develop an approach that can be replicated in applicable situations and to what extent can these models be generalisable?

These were further developed through the early research stages to better address the needs as they evolved.

1.6.1.1 How can we best understand PM and its necessary antecedents on aid / relief projects?

1.6.1.2 What antecedent conditions need be in place before PM best practices can be applied to lead to project management success?

1.6.1.3 What are the antecedent and PM best practices that should in principal be universally applied with actual implementation dependent upon the project context?
1.6.1.4 How can we best develop an approach that can be replicated in applicable situations and to what extent can these models be generalisable?

1.6.2 Research Scope and Objectives

The expected contribution that this work will produce to fulfil the academic needs consistent with the requirements of a PhD is as follows:

Contribution to knowledge: This will both extend and focus the body of PM knowledge to include improved ways of recognising the contextual factors and PM antecedents that affect undertaking disaster relief projects. This will increase understanding of the contextual nature of these types of project and of the implications for choosing interventions to improve performance when undertaking such projects to generate the necessary and desired results.

Make a useful contribution to society and a particular discipline. This research will improve the way that vulnerable people subjected to calamitous disasters receive aid from governments and NGOs in terms of the way that these projects will be undertaken. It will also improve PM practice by identifying a currently poorly understood type of project and at the same time enable various groups to realise that PM is a very effective way to enable, communicate and resolve significantly better outcomes than otherwise in such challenging circumstances.

Be of publishable quality. This thesis generated a number of conference and papers in learned and project management journals. By the nature of its significance and social need, it is likely that publication of parts of the work will be more broadly spread and diffused within aid and NGO agencies, in the more popular press and other media channels.

The expected objective outcomes of this research are summarised as follows:
1. Summarise project management critical success factors and their necessary antecedents in general practice.

2. Realise & validate a methodology for the antecedents / necessary front end & PM through lessons learned from aid / relief projects.

3. Provide a sound and demonstrated example of PM process improvement and how through an action learning approach, people close to the project can develop their own self-help approaches that can be specifically deployed to bridge identified gaps in PM practice including, but not limited to, aid / relief projects.

See section 4 table 4.1 for the scope and expected research outcomes and outputs.

1.6.2.1. Objective Outcome Manageability and Risks

The outcomes proposed are to be monitored and evaluated through the pragmatic action research paradigm. The methodologies related to this are worked through repeating but developing cycles of action and research reviewing and reflecting upon outputs that comprise those outcomes proposed as set out in the necessary frame and detail in Table 4.1, p103. The manageability and / or risks to those outcomes are, in the reality of this research in this paradigm, adequately addressed by the process which is set out in the following Chapters. The philosophy, paradigm, epistemology and methodology which both encompasses and capably bounds this is well covered in literature on researching organisations using action research (Eden and Huxham, 2006c)and detailed fully in Chapter’s 4, 5 & 6 following.

1.7 Methodology and Planning

This research project is focussed on improving our understanding of how to manage aid relief projects through coping with chaos and extreme turbulence while maintaining a structured PM approach.

The initial research did follow a staged model, recognizing that the steps are not necessarily sequential and that the model was cyclic, thus relevant for continuous quality improvement processes and, in particular, for further research.
Stage 1  Observation and Literature Review leading to Problem Clarification

Stage 2  Proposition Formulation leading to the definition research Concepts, Construct and Model

Stage 3  Development of Project Success Criteria and a List of ‘theorized’ Critical Project Success/Failure factors, to be gathered from the Literature Review - plan phase.

Stage 4  Conduct semi-structured pilot study interviews at the three identified levels: with project managers supervising projects in the field (level 2) their board level project sponsors (level 1) and those who work on the ground with supervising project managers (level 3)- research action phase

Stage 5  Development of Final Project Critical factors of Success/failure, project management tools and techniques and Project Success Criteria reflection and analysis stage 1 phase.

Stage 6  Validation workshop (qualitative research) of Project Practitioners to validate/ prove/ confirm/ add to the ‘theorized’ Critical factors reflection and analysis stage 2 phase.

Stage 7  Further in depth interviews (semi-structured) using a soft systems methodology to study the drivers and impediments to using best identified practice project management tools and techniques that are relevant for these types of projects – research action phase.

Stage 8  Data analysis feedback and proposal of actions for improvement from stage 7 based on critical factors from stage 6 and proposal of how (models, processes, templates etc) to ameliorate problems identified in stage 8 of this study relating to antecedents of the PM best Practice that need to be addressed - reflection and analysis.

Stage 9  Interpretations and Conclusions

Stage 10  Presentation and thesis write up and defence.
There were four types of data that were gathered from people.

The first type (undertaken in stage four) was collected from project managers in the field and will be of a semi-structured interview nature. The aim was to unearth factors that drive or impede project success.

The second type of data (undertaken in stage six) was drawn from experts in project managing ‘normal’ projects where there is adequate infrastructure (physical, IT, political, training and development, cultural, and administrative) to manage projects and experts who also have experience of coping with inadequate infrastructure to manage projects. The aim of this workshop was to review and validate findings gathered up to stage 5 and to be able to add and elaborate on the context of identified PM success factors.

The third type of data (undertaken at stage seven) was drawn from the same sample pool as in stage 4. These people were asked to describe their projects with a focus on several key ‘messy’ and paradoxical issues that they perceived inhibited them from achieving project management success.

Typically this is a very open, continuous and open-ended dialogue where the respondent is asked to recall and describe such a scenario and to reflect on drivers and barriers to problem resolution. The interviewer feeds back reflections of what is appearing to happen using a technique called ‘rich pictures’. These are cartoon-like sketches that encapsulate messy situations and identify potential causal drivers and relief mechanisms. The aim was to formulate an ‘as-is’ model to compare with an idealised ‘should-be’ model so that gap analysis could reveal a series of improvement actions that would be prioritised by the participants.

The fourth type of data (undertaken at stage eight) was provided by participants with aid/relief experience. The aim of this stage of the research was to validate the achievable of models, processes, templates for improvement that emerged out of the previous step. Participants were required to discuss these models, processes, templates for improvement and to comment upon their validity, limitations of
potential use and suggest what effort and resources would be needed for them to be implemented. The questions asked reflected this requirement.

1.8 Summary of Chapter 1 and Structure of Thesis

In this introductory chapter we overviewed the setting, background and objectives of this research. We reviewed the types of organisation, environments and context where it may be applicable and the human factors, both general and personal, which may be called into review. We looked at the PhD as a vehicle with which to significantly research these challenges and through that the literature, information in general and the present practice and research towards the objectives outlined.

We can summarise these as;

- Significant need to understand antecedents to project management practice
- Need to resolve antecedents to and PM best practice in risk environments
- Individual rationale and even my career span as a reflective practitioner
- Project management practice and project success
- Need to improve the effectiveness of PM in general and especially research into PM in high risk environments & provide BOKs & support for agencies, communities & practitioners

And we will be questioning, reviewing, reflecting upon, and testing each of these objective outcomes in the most rigorous and effective ways possible within this context and real environment.

This thesis will be structured into chapters as follows and also as developed in the chapter placement map at the start of each chapter.

- Organisation
- Context / Environment
- Literature Review
• Planning and Methodology
• Action Research / Case Studies
• Review, Learning and Recommendations
• Summary, Outcomes & Future
Chapter 2 The Research Context

“They taught me all I knew, their names are
What and Why and When And How and
Where and Who” Rudyard Kipling

2.1 Reflection / Introduction

This research thesis is to resolve an “Understanding the antecedents to project management best practice and the lessons to be learned from aid / relief projects”. We are to address both practice and research in the antecedents to project management as an applied discipline in the context of the wider world whilst drawing out significant lessons in the context of the aid / relief world.

Context, in this instance, can apply both to the project problem situation and to the research. The problem situation is one not easily addressed nor easily resolved. It is global in more ways than one. The problem situations in environments of high risk, disasters and rapid change occur, on what may seem an increasing basis, globally. The research into the problem situations and their potential best response is quite a challenging research context in itself and may have lessons for more than the relief / aid projects in isolation.

So we approach this research in this light with a view to resolving good theory to practice and practice to theory through the application of the appropriate framework addressing the challenging practice of both the relief projects and their research in action. We also need to approach this work with an open mind and leave our prejudices, past habits and ways ‘at the door’, so to speak and suspend our judgement until we have completed the journey of this thesis in its fullness.

The context of a given situation looks, initially, to be best rapidly assessed by key questions as to the what, why and how of the reality of it all with the keys of
philosophy going back to Aristotle’s “theoria” and “praxis”, theory and practice concepts (Prilleltensky and Totikidis, 2006, Raelin, 2007). These were developed and applied in such situations over millennia since, and have subsequently evolved and further developed, leading us to present theory and practice within that extending frame.

2.2 The Harsh Reality

The harsh reality of both the problem situations and the research to best respond to those situations is indeed quite challenging, with high risk, but potential high reward, in the resultant understanding and solutions. There is the potential to bring significant improvement in the understanding of the antecedents to project management practice in not only aid / relief projects but also in general project and programme management more extensively.

Anything that can be brought to work in these situations must of its own being be robust and resilient and therefore have lessons for wider project and programme management in general. They also have the potential to more clearly realise research into antecedents to actual project management process and development for generally improved application.

2.3 Context

2.3.1 Environment

The environment for this research has several interesting aspects. Those include, but are not necessarily limited to, those of people, communities, nature, technical, risk, power, politics and communication all in the even more demanding context of urgency.

The basic context of this work is in an organisational one with a natural, political, technical and human environment. The background to this setting is extensive and global and universal with demanding needs, requirements, evaluation and necessary vision and method to work all of this to understanding and resolution.
The background is one of centuries, if not millennia, of disasters, recoveries and hopefully improving ways of responding through different forms of organisation and projects.

The environment is one of high risk but where effective methods are being more and more sort as the realisations of the downstream effect of these disasters spreads.

The natural environment in which these disasters occur is obviously one of risk and potentially high, mostly in the poorer reaches of the earth where, if most had a choice, they would not choose to live because of unstable aspects of the geographical or political zone in review. Nevertheless disasters continue to occur in these and other areas. Mostly the response in both action and research is far from adequate and the recovery and reconstruction sometimes border on another human made disaster following a natural one.

The political environment varies depending on the location of the disaster but politics being what it is, it usually responds in a more self protective and reactive way, typically often, rather than a beneficially practicable and sustainable way. Power imbalances are mostly prevalent in the decision making regarding the recovery and reconstruction (R&R) effort. Therefore the poverty discrepancies can be even further imbalanced by the response if communities are not able to take good decision making in their best interests into the r&r process.

Severe technical issues such as communication, transportation, health, hygiene, logistics and shelter are problematic and are all part of the problem but also need to be part of an understood solution.
2.3.2 Stakeholders in the Environment

Most endeavours in the aid / relief projects and in fact all range of projects have several stakeholders or agencies with different agenda involved. Regardless, these projects are needed and expected to achieve their outcomes. Therefore the resolution of the different, but aligned, interests of the key stakeholders, whilst taking into account the various power imbalances and for whom the project works, is essential.

The urgency and context of organisational, programme and project sense within workable antecedents is the key to the understanding of this research in practice. Questions can access the understanding of the context best as has been brought out by various studies. They typically endeavour to resolve context by questions of what, why and how (Checkland, 2000, Bergvall-Kåreborn, 2002, Bergvall-Kåreborn et al., 2004, Lauriol, 2006, Walker et al., 2008c).

These questions need to get to the nub effectively and relatively quickly. When one considers the environment that these questions may be asked in one realises at the same time the enormity of the challenge. These questions may not only be asked in the urgency of a post disaster reality, but also in differing cultures and dialects with different cultures, within differing participating organisations and even within the same organisations spanning different worldviews. This is no environment within which to try theories or stand on principle. People and circumstances need to get the important what, why, who questions resolved effectively and meanwhile need to see what the purpose of these projects are.
2.3.3 **Objective - Vision, Purpose, Goals**

Several approaches, in both the literature and even more in practice work, seek to address and attempt to align the vision and purpose or goals of each of the organisations or communities participating with the objective of the recovery or reconstruction programme being addressed. Vision and value statements are to be found in most organisations annual reports or websites these days. Transferring or measuring those visions and values to achievable outcomes is not anywhere near as easy to find or resolve.

Within their vision, each organisation or community may have special purposes for special programmes or even projects. However those purpose statements may be interpreted or actioned in differing ways depending on the nature of the combining of the goals or resources of the more powerful grouping of key stakeholders and, hopefully not, just the domination of the most powerful.

It has been shown that the goals or objectives of the particular programme or project, may or may not be in the best interest of the intended beneficiaries even if they are key stakeholders. The most common reason for this can be the lack of understanding of the key beneficiaries’ needs and wants or their leadership or indeed, too often, the misunderstanding of the antecedents to the application of the project management for their best interests. So the process of combining goals within differing organisations or communities to realise feasible and sustainable goals for each project or programme is both problematic and endemic.
This work may better achieve sustainable outcomes if it better realises not only key antecedents to project management practice to enable the alignment and feasible outcomes to goals for the recipients or real beneficiaries of these programmes, together with a workable process and frame with which to enact that. Whilst all this may seem increasingly challenging, each of these individual objectives has been achieved at different times in different parts of the world. There are project management best practices which have laid claim to such achievements, but not many immediately recognisable or agreed on paper – and especially in this sort of environment.

2.4 Stakeholders / Needs / Change

Stakeholders come in many forms and with quite differing values, needs and wants. The UN or similar agencies that often lead these sorts of responses arguably have a well formed group of professional managers ready to effect their most recent ideas for the betterment of the community they are sent to support. But it is rarely that simple. They may or may not be familiar with the local community, their particular needs, and the logistics of the territory they are in. They may be good at one thing yet challenged by another.

Whether you are the world’s best expert on whatever or you are a recently employed project co-ordinator out for a career starting experience - where to start, what to do? Who will do the best with the least and what are the keys here?

The keys start with understanding the environment and context of the stakeholders and with empathy and effective methods. But how do you resolve the stakeholder’s interests? How do you understand their primary needs and values?

2.4.1 Stakeholder Engagement

The key, of course, is good stakeholder engagement. What is that? How do you do that? How do you even define that? Stakeholder engagement is about effective engagement. Then what is the appropriate process and who to engage and how to process?
This also calls on the need for ethical and empathetic leadership both in the antecedent and project management engagement. The way to enable these aspects is, ideally, to embed them in the process through questions that define the engagement and the context and methodology to respond to that.

### 2.5 Philosophy

This thesis is fundamentally towards a doctorate in philosophy. Its foundation is necessarily one of philosophy. This philosophy should, in turn, be supported by a workable paradigm with a methodology that addresses and resolves the workable and understandable methods and process to address the outcomes, in that light.

So what core philosophy will guide this thesis to workable and understandable realisations? The keys sit within those two criteria – workable and understandable, but are not limited to that. Then how to apply rigor and validity to realise the process and underlying philosophy to do this? The guiding philosophy cannot sit on principle between different bodies of theory or practice. It needs to be eminently flexible, practicable but at the same time be able to resolve vastly different values and cultures and still enable people and groups to work together to find and achieve common goals through resolved values and workable methodology.

“We associate the pragmatic orientation with a focus on praxis and practical knowledge development, cooperation between all concerned parties, and the need for finding and constructing a common ground between them as a platform for action.”(Johansson and Lindhult, 2008; p100)

Critical pragmatism is instructive in its commitment to building thick connections between individuals, groups, and disciplines for the purpose of expending understanding of our shared interests.(Kadlec, 2006; p541)
It needs to be practical, but robust and theoretically rigorous and workable at the same time. It needs to be understanding and understandable in a wide range of different cultures and still to have been able to perform and realise communal outcomes. It needs to be able to work within limited resources, but enable workable and communicating outcomes. It needs to be disciplined, ethical, empathetic and pragmatic (practical).

2.6 Context - The Key Questions

The context is a key realisation in the importance of the antecedents to project management and the problem situation. As stated earlier, context of the research is best understood when relevant questions provide the answers to the contextual frame for a programme or project(s).

‘The purposes of action research are to involve key community stakeholders in developing knowledge and take action to solve problems.’(Crist et al., 2009; p320)

A real challenge within this context is one of limited resources and time. In most situations in these environments there will be a distinct lack of resources and time for the methodology to respond to the needs to be able to work within those ever present constraints. There will need to be a critical, realistic and pragmatic way to deal with these serious challenges

“Action research was described as pragmatic because (a) it used existing resources, such as researchers’ and community members’ experience and skills; (b) it was conducted within contexts that were available; and (c) it worked toward solutions that were “practical or practically useful,”(Crist et al., 2009; p321)

It has been put that

“praxis refers to a cycle of activity that includes philosophical, contextual, needs and pragmatic considerations’.(Prilleltensky and Totikidis, 2006; p49, Prilleltensky, 2001; p762)

Questions such as –

Contextual - What is? Needs - What is missing and what is desired?

Philosophical - What should be,
Pragmatic - What can be done?

can greatly help to get a clearer picture of the context of research or a given programme or project(s). Other noted methods include SSM and Checkland who proposes a PQR (Checkland, 2000) to arrive at a workable picture of a given situation where the P question is also “What is?”

There is also the need for programme evaluation to be effective it is set within a clear context (Stame, 2004) the characteristics of good programme theory being C (context) M (mechanism) and O (outcome).

In this thesis the key questions to clarify and resolve context are:
2.6.1 What is the real problem situation / environment?

What is needed is rapid assessment of the real problem situation taking into account the realities of the possible recovery and how that is affected by those environments, the capabilities of those organisations, communities, stakeholders, resources and projects that may be realised to respond to these.

The environment for this research is one of rapid change with incumbent high risk. The problem situation and the environment in which this is being addressed are the result of a risk event that has occurred and therefore the heightening of an existing risk and the disastrous effect of that on the people, communities, structure, infrastructure and organisations within those environments.

These assessments must be done as fast and as accurately as possible (Gosling and Edwards, 1999). This is a difficult task usually being undertaken in a possibly confusing situation where other priorities such as death, plague, disease, safety, health, psychological, hygiene, need for immediate shelter and water supply and other serious issues are being faced in that environment and by those very communities needing the recovery programmes and organisations wanting to provide them.

What is to be assessed is basically ‘what is?’ and ‘what can be?’ in the environment in review. The need is to understand the problem before resolving a solution. In this context the gap between the problem and the range of solutions is the key. The other keys here are the needs of the stakeholders and the goals of the organisations likely to participate in the recovery programmes.

The harsh reality in the post disaster and aid / relief project area, in general, is that the environment and real problem situation is both immediately acute and humanly problematic. People may have lost family, community, whole villages or suburbs, their security, shelter, livelihood and any normal support or patterns that would sustain their living. Imagine, if you can, the harsh reality of surviving an earthquake or a tsunami which may have devastated your home, your neighbourhood, and all they know and grief, confusion of mind and direction which may accompany that.
Imagine, and be empathetic to the realisation, that half the people you knew in your area may be dead or missing, that you no longer have any possessions and that you may be in fear of another earthquake or tsunami or whatever and that all that you had and knew seems to have been lost to you. This then may be repeated into all neighbouring communities and the leaders of yours and those communities may well be lost or dead. How do you face this disaster in any effective way or with any confidence? How does your community gather itself together, can it, can it even live in the place of the disaster anymore? Can it be properly represented? Are its old or new leaders still able to represent it effectively?

Who is there to help? How much devastation is there? Are there immediate threats of disease, water contamination, and further collapse of buildings or infrastructure? Are the hospitals there coping and are there enough practitioners to address the response needed? How long will it take to stabilise the disaster response and what resources and organisations are able to respond effectively or at all to this unexpected new reality?

Where to go for help, how is it to be co-ordinated, where to start and with what priorities? What organisations are there who can work together to support this response and who will head it up and with what authority? Will the different organisations have similar values, even speak the same languages, understand the same process or have any at all? How does one work in a co-operative way with others to assemble and then effect the necessary response, recovery and, in time, reconstruction? Can different goals be co-ordinated in parallel, should they be?

So many questions and so much information or assessment needed. What, why, who, how and when? So many questions needing to be answered and how many can be even addressed in the rapid response time that is so crucially needed in these dire circumstances?
2.6.2 Why do this project? Alignment with organisational objectives

Why would one take on these projects if one is not immediately a victim of the disaster or responsible for the environment in one way or another in which the relief is now needed? And even if your organisation or government is responsible for part of the environment, which parts, and to what extent and then to what extent can these organisations resource the necessary response, and what are the objectives that they will address, and in what order?

Does this work fit within your organisations objectives and capabilities? Is it feasible? Is it sustainable?

Probably a broader question we have tussled with ongoing is why do this work, why do this PhD? Why would one take up so much time, energy, resource to address this thesis? What philosophy, what motivation, what possible inspiration would drive one so, to do something this wide-ranging and hard?

Even more personal philosophical questions I wonder at are why did I go to India early in my professional career to help in recovery there, then to post cyclone ravaged Darwin and post tsunami Aceh? Why would one do that? Why would one put one’s otherwise comfort and well being at such risk for such work? What drives people to work in such engagements? What philosophy would drive or support that and then, after all that, why would one agree to do this thesis?

I think the vast majority of people want to see an improvement in the environment, believe in working together, would like to have better balance between the “haves” and “have nots”, work to improve the lot of others less fortunate. Just look at the generous response to the Asian Tsunami Relief work and the Victorian Bushfire Response and many other disasters.
But what took me and others so far and reaching to do that work and then this thesis? Why? What personal philosophy would do that? Looking back and with the benefit of hindsight and “the standing on shoulders of giants” possible through this research and development, were we driven by a strong philosophy? If so, what is or was that philosophy and is it the same as needed to resolve this thesis? What factors and issues take us there and may enable us to make a difference there? What is practical and can be embedded in the resolution and methodology and what is person specific?

That philosophy may be described by some as somewhere between ethical pragmatism and altruism. That could be otherwise described as the theory of action or praxis or then beneficial philosophical practice. The philosophy is one of principled action and pragmatic sustainability. What enables sustainability or feasibility in this sense is how the questions are addressed, the methodology processed and the project management in a realistic, but empathetic, frame and its necessary antecedents understood.

2.6.3 Key stakeholders – needs / wants, power / interest, alignment / conflict

One of the key test for effective or successful project / programme management is the satisfaction of the key stakeholders (Crawford and Bryce, 2003, Crawford, 2000, Walker et al., 2008b, Nogeste, 2008, Bourne, 2005). It is essential to identify and engage with stakeholders, including the beneficiaries, donors, operators, project managers, government and community leaders depending on the circumstances and situation, to enable a successful project.

The need is to resolve who has what needs and wants, who carries the power and who has the most and legitimate interests, which providers, donors or communities are in alignment or potential conflict with the key needs or objectives of the possible programmes. This then flows into which programmes are more feasible / sustainable, which are most likely to be resourced and which ones are better value, given the key criteria for these endeavours.
2.6.4 Goals to Outcomes / Programmes

The objectives or goals of the organisation or group of organisations (multi agency) need to be worked out to see what is feasible, agreeable to the key players, what can be funded, what timelines may be applied and many other questions to be answered from these resolutions.

2.6.5 Objectives and Constraints / Assumptions

Any objectives exist or are planned within the framework or context of the environment in which they are assessed. In respect of that there will exist constraints and assumptions which are related to limitations of the context or environment being addressed. These need to be listed and to be as clearly defined as possible to enable both a risk assessment to proceed from them and also to communicate to all relevant parties what is possible to be addressed and what is not.

2.6.6 Outcomes

Outcomes will need to be defined in as clear terms as possible and in a way that all parties both understand and can work to. This is quite a demanding requirement actually and also considering the value / benefit of these possible outcomes should also be worked and agreed. These aspects will be addressed in the following chapters.

2.6.7 Outputs / Deliverables

Each outcome will be achieved by a set of outputs or deliverables within the risk and contingency that the environment and its assessment enables.

It will be important to review with all the key stakeholders that the sum of deliverables will actually achieve each of the outcomes defined and how they will be delivered and measured to reach that final agreement.
2.6.8 Constraints and Assumptions – Risks

As stated previously, the constraints and assumptions will entail risk and these risks need to be defined and sized with their possible effect on the objectives to outcomes to outputs understood. Where appropriate, contingencies in terms of time, cost or action need to be resolved within the working group and programme to project plan.

2.6.9 Risk Management

All of the programme or projects are both the result of high risk and exist within a high risk environment. In this respect risk management is very much core to this form of management whether it be strategic, programme or project.

2.7 Antecedents to Project Management, Organisation

The environment for these projects to be resolved is very affected by instability and lack of resource, amongst other problems. At the same time, it is very affected by the front end factors to project management, namely its antecedents. These antecedents can have a dramatic effect on the workings of project management. Take, for instance, if the key stakeholders are not informed or committed to the project scope or planning but are influential in the providing of resources to the project. No project plan, no matter how well drawn can expect to survive that conflict in project success. If key parties to the project plan do not understand it and simply work with it as long as it suits them, but not to the feasible outputs or sustainable outcomes, then the plan will not be achieved.

It is necessary to understand the antecedents to project management best practice or even just reasonable workable practice for these projects to have a hope in Hades of working properly. That is one of the key challenges of this thesis. Not only do the key antecedents need to be understood and addressed but the practice to get them into good working antecedent order will also be needed. That demands the methodology, methods and process for the antecedents to enable the project management to be understood and made explicitly workable also.
2.8 Programme to Project Management

There is much being written these days about programme management being both a necessary antecedent to project management, but also it being an essential framework to the effective combination of projects. It is indeed helpful to look at examples of this in the aid / relief project world. Take for example the programme of the recovery and reconstruction of a village in Indonesia. This may be achieved by several projects, the outcomes of each one only effectively forming the whole when they work together.

There may be a project for a series of houses, but these houses cannot be occupied without access to potable water. These houses may not be accessed without some form of road or pathways and sometimes, even more importantly the villagers will want their community livelihood or religious centre reconstructed as part of their return to their working, living village. There are, in these contexts, material and non material or what may be termed “hard” and “soft” outcomes or outputs necessary for the reliable return to community life.

2.9 Summary / Review

In summary this Chapter has been essentially to overview the context of this research. Context is such a key word in the research, the subject in itself and the frame of worldviews within which and how to address the outcomes.

The context of the research is best addressed using the core questions of what, why, who and how and by achieving the best understanding of the environment, the communities of practice and communities of research, the philosophy that may guide the paradigms or methodologies from the different worldviews which may be able to address these, and how to review, reflect and learn from this best in this thesis.

That is one challenge then for the subject matter itself. In research and particularly
in rapidly assessing, in the harsh reality situation of a high risk environment, the keys to the feasible and possibly sustainable outcomes for a group of temporarily reforming stakeholders, similar questions prove valuable. Questions such as what, why, who, how may need very well defined questions to be resolved and their answers and understandings to be robustly and effectively addressed. This may need to be done across different cultural groups, languages and project ways. The storming, norming, and forming that will necessarily be engaged in to do this will demand a lot of any process and will need it to be simply effective despite all the challenges and risks to be entered into, through and beyond. Then in the methodology of action research or its more technical extensions similar questions may be the key as well and are summarised as follows.

- What is the real problem situation / environment?
- Why do this project?
- Who are key stakeholders?
- How to achieve the Goals or Objectives to Outcomes / Programmes?
- What are the Objectives and Constraints / Assumptions?
- What are the Outcomes that define these Objectives?
- What Outputs / Deliverables will resolve the value of these Outcomes?
- What Actions will add the necessary value to these Outputs?
- And with and within what risks?
- And how do we understand the Antecedents to this Project Management?

These questions are both clarifying the context, not only of the research, but also in the process in the field of project management and in the context of action research in its practice form in the chapters to follow.
Chapter 3 – Literature Review

“Literature adds to reality, it does not simply describe it. It enriches the necessary competencies that daily life requires and provides; and in this respect, it irrigates the deserts that our lives have already become.” C.S. Lewis (British Scholar and Novelist, 1898-1963)

3.0 Reflection

In this chapter we will review the literature we found as primarily relevant to the thesis. All of the literature referred in this chapter has been reviewed in the light of all the aspects addressed leading into it from previous chapters, in relation to the research aims and objectives. The section headings following are resolved from those of Chapter 1 Section 1.5. We will first look at relevant literature on project management research, where it may lead in respect of this research, how is it being addressed presently and into the future. Then we will review the literature with respect to projects and project management practice and what guides their success. From there we may review how that may or may not have been applied in aid / relief projects and the synergies and / or differences that may appear or apply there. We then look more broadly at international development projects, their project practice in general and then with specific focus on post disaster project management and possible rebuilding methodologies.
The next phase is to look at any research on antecedents to project management effective practice in the aid / relief area. From there we will work down into the initially referred to and, at the time, preferred method for addressing this topic in the aid relief area which is systems theory in general leading to soft systems methodology.

Taking a step back we will then look at the philosophy of action research in general and its critical and pragmatic roots. We will then review the present methods used in the majority in aid / relief projects, they being the LFA or PCM, Project Planning, Monitoring and Evaluation (M&E) and the Theory of Change, amongst others.

We will then look at Community Programme Management and the use and value of praxis in that. In that same frame we will look at literature in respect of Organisation to Programme Management.

Finally, we will take a closer look at the philosophy of reflective practice and critical or pragmatic action research and the developments of these around in use the world and in the aid / relief and project management areas in particular.

### 3.2 Project Management Research

Project management research is, indeed, a challenging and comparatively recent development. The origins of traditional project management research reside in the civil construction, building, engineering, military and systems areas. Traditional project management emerged in stable environments with resources focused on the manageable outcomes over predominantly major projects. Understandably, project management research evolved in similar processes, methodologies and philosophies – stable, necessarily focused and fixed ends with material measures for outcomes and success with adequate resourcing anticipated. Whilst civil engineering and then project management was focused in its early use on large physical projects, at the same time, it needed to deal with people, communities, environments, politics, power and risk.
However, at its core it dealt with projects as systems, albeit incorporating people and organisations, and in time it may have been eclipsed in its most valued applications within traditional organisations. PM is presently under challenge if it does not work with how to deal with the environment, people, communities, organizations and the wider general or antecedent issues as it did the engineering and systems issues.

To be able to do this it needs, amongst other aspects, to learn better from others and to enable its research to do that best, most clearly and effectively and soon.

PM had a very successful incorporation into mainstream endeavours, business, government and education in the Western, better resourced parts of the world. It also worked best where stability and sufficient resource, including finance, can be brought to bear with like minds focussed on agreed goals, scope and plans to achieve formidable outcomes not previously able to be achieved with such efficiency. However it has more recently slowed in its development in dealing with issues outside of its now traditional development, those being stable environment and good alignment of unchanging goals and success criteria over the project term, linear start-to-finish planning, reliable resource supply, clear material objectives, non-competing programmes, predictable risks, common culture and technical systematic process engagement.

PM, without a clear understanding of the necessary antecedents to its feasible performance, may be seriously challenged by larger and more pressing needs globally working within unstable or high risk environments or where there exists a range of stakeholder interests. It may not presently be able to offer a robust set of solutions for the application of goals, scope and plans where there is high risk or a limiting availability of resources and the likelihood of significant changes to the outset objectives in the life of the project, or more likely, collection of projects into a programme for wider purposes.

This challenge is being responded to, to some extent, by the subsequent development of programme management, portfolio project management, and front
end strategic management within organisations and through institutions such as the PMI and other project management and educational institutes around the globe.

But it is indeed a very telling observation that this response seems more of a reactive one rather than a wiser and proactive approach to the wider world challenges. This could be viewed as almost a result of the availability of resource within which project management and its developers have had the comfort of engaging and growing in mostly ‘Western’ environments. Regardless of the value base upon which it may or may not be viewed, the early success of project management within stable western constructs is also its potential failure in the larger challenges more recently engaging it around the whole of the world. Can it adapt to other cultures, is its Western construct understandable or workable in other challenging contexts where stability, resource supply, traditional ‘Western’ educational boundaries, mixed methods and reasoning, differing stakeholder views or even language and communication methods are needed in organisations which may be multistakeholder and high risk all at the same time?

How does one address such project environments and how does one review and learn sufficiently in a global context of need? How may Project Management Research best address and adapt to these unstable and most challenging environments?

How does Project Management Research intelligently and capably lead Project Management and what it may be and what it may become into the future?

A good place to start to review this is at the most appropriate title and work done in this respect, “Directions for future research in project management” (Winter et al., 2006b). This paper has watershed potential in that it gives good light to moving project management research beyond its current conceptual boundaries. It contends that the most dominant form of project management research is the
"Rational, universal, deterministic model – what has been termed the ‘hard systems model’... "that issues facing both researchers and practitioners now seem to be well beyond the hard systems perspective” (Winter et al., 2006b; p640).

Winter et al. see three directions for future research in project management, those being theory about, for and in practice. They see the future directions in theory for practice through projects as social processes with value creations as the prime focus and a broader conceptualisation of projects as being multidisciplinary and open to negotiation throughout. Key here also is that they see future directions in practice through the development and learning from reflective practitioners, through the pragmatic application of theory in practice.

The authors also see the need and opportunity to develop new concepts and approaches to support practitioners actually deal with this complexity in the midst of practice. They refer to the often occurring problem for project management in the messy, unclear objectives, with differing stakeholder views and also quote others with respect to this thesis where they quote Morris in the understanding of antecedents

“One of the widest fields where new and original research could provide most practical benefits is within the front-end processes of a project... Better understanding is needed of the ‘soft’ methodologies and their relevance and credibility.”... to... “enable the creation of knowledge perceived as useful by practising managers” (Winter et al., 2006b; p645).

They also note the need to move from a being to a becoming ontology.

In a very relevant application of this (Zuo et al., 2009) reiterates the need as outlined (Winter et al., 2006b) to move PM from being ‘practitioners as trained technicians’ to becoming ‘practitioners as reflective practitioners.’

In a related paper on rethinking project management research that addresses the ‘actuality’ of project based working and management (Cicmil et al., 2006), produced from the same series of research workshops, they represent the shift from a model-based instrumental approach towards a praxis-based one. They see the need for
They note shortcomings of the mainstream goal of disseminating ‘best practice’ in project management to practitioners.

Project actuality needs to take forward practical philosophical considerations with the conceptualisation and analysis. They recognise the need to listen to practitioners through their own experiences and actions. They note a pragmatic epistemology in this respect, adopted (Calori, 2002) where the methodological framework involved reflective practitioners and pragmatic researchers in an immediate, pragmatic and contextualised way. In that paper by Calori he focuses very clearly on the pragmatic epistemology of Aristotle, James and Habermas and the concept of communicative action. He notes quite wisely and correctly, as also found indeed in this thesis research, that this process takes time to complete the process of iteration between reflection and action and sufficient studies to enable generalisations.

Cicmil et al (2006) also note the potential problem of positivist scientific research acceptance, but also offer that this more practical philosophical approach helps broaden the understanding of project management and its practice. They also refer to Weickian sensemaking theories and other post-positivist reconsiderations of management theory.

Coincidentally a separate paper by Weick (Weick, 1988a) on enacted sensemaking in crisis situations notes that enactment enables people to include their own actions more and thereby to discover the potential of their involvement and the effect on outcomes. Again we are brought to the need to work with, reflect upon and with the people involved, to resolve or improve the solution to the problem – both in crisis or in any project management interaction.

Cicmil et al (2006) conclude the way forward as requiring a move from the rational approaches to one which focuses on lived experience in practical action.
In all of the above it is clarified that these future directions are meant, in moving towards theory about, for and in practice this

“to enhance the ‘from’ position not to discard it discard it” and that these new directions have the “need for a range of creative research strategies, designs and methods including action research”. (Winter et al., 2006b; p647).

All of these papers lead to research in action, praxis and in practical reflective situations and pragmatism. Action research can enable all of the above needs and there is interesting literature in this respect at both the technical and conceptual level.

In the paper on directions for future research in project management (Winter et al., 2006b) it is seen in light of the growing critiques of project management theory that there is a clear need for research equally in relation to the developing practice.

The need for a new epistemology of practice is also identified (Raelin, 2007). He proposes that, by merging theory and practice, both will benefit. He notes that there have been calls for practice based learning in its many forms to be more objective in its outcomes and viewed within a context that would take into consideration power dynamics across and within hierarchical levels of organisations. It is also seen that contextual and environmental understanding would also address the social, political, cultural, ethnic and gender structures that constrain and exploit people. He posits three dimensions of outcome; engaging, extending and originating knowledge from experience. He concludes that we need to move beyond the acquisition of formal logic to reasoning and sense-making that is concurrent with ongoing practice.

In a more current review (Walker et al., 2008c) it is argued that reflective practice enabled through an academic framework, and models that engender understanding from both practitioners and academics working together, can save both time and confusion in the rigorous development of theory to practice research.

they see that research should be;

“immersed in continually thinking about practice and also be reflective as it happens and making the cause and effect loop connections in a true plan-do-check-reflection cycle”. (Walker et al., 2008c; p19)
In the need for the deliberation stage of reflection where sense-making is a process where one becomes a ‘bricoleur’ (Walker et al., 2008c, Weick, 1995, Weick, 1996, Weick, 2001) where, whatever can be engaged to make better sense of the information available to be resolved, is achieved through using more insightful processes such as rich pictures and not only mechanistic processes.

In the earlier watershed paper on rethinking project management research (Cicmil et al., 2006) it is seen to be of real value to both practitioners and researchers to adequately address the ‘actuality’ of project based working and management. This is a shift from an instrumental approach to researching projects and project management, towards praxis-based theory and research. It is argued that the researcher in project actuality research is not separated and disconnected from the participant(s), but engaging in valuable interchange with the practitioners who reflect and interpret their own experiences in a more understanding light. The vast majority of practitioners know that studying management practice focussing on planning, organising and control does not reflect organisational reality as messy, confusing, disjointed and political in character.

“This set of studies shows that competent practitioners have a much broader ...understanding of project management than the discourse embedded in the PMBOK guide”(Cicmil et al., 2006; p682).

They do not, however, promote ‘actuality research’ as a special stream, but as an alternative ‘lens’ through which new understandings of projects and project management can be achieved.

A paper on understanding project management practice through interpretative and critical research perspectives (Cicmil, 2006) calls for a closer link between practical knowledge and the learning processes. She argues well, as we practitioners already see that by interpreting the empirical material gathered in the process of prolonged active interviewing and collaborative interpretation of the accounts reflecting the experiences practitioners we can generate alternative understandings of what goes on in project practice and thence add to practical theory.
In their direction for future research paper Winter et al argue that

“how we develop the practices that best help manage projects, or else as much, if not more, in areas such as commercial, technological, human behaviour and other broader aspects of the subject.... and it is this totality that the research on project success and failure suggests we need to attend to if we want to develop and deliver more successful projects”. (Winter et al., 2006b; p641)

The ‘totality’ is something that project management practice and research has not been very good at to date and that is a key challenge for this research.

3.3. Project Management Success Factors

What does the literature on PM success factors take as its underlying assumptions that may or may not apply to aid projects? What are some of the more problematic issues that aid projects face which are significantly different from delivering, for example, commercial projects in difficult or distressing circumstances? How can we best approach studying such projects and to summarise in a simple, but effective, universal framework the contextual project success constants and methods for application in any environment, particularly the PM Framework and application undertaking Aid / Relief Projects?

In her paper profiling the Competent Project Manager, Crawford (2000) addressed the major concern of the field of project management and a recurring theme of the literature as that of ‘project success’. She highlighted that there are two major strands to this concern – how success is judged (success criteria), and the factors that contribute to the success of projects (success factors).

In her paper on the Success of Projects in Different Organisational Conditions, Irya Hyvärä (2006) undertook a relevant cross industry study. She compared rankings of importance of factors and, while it is beyond the scope of our paper, we find it interesting that her comparison with four other studies found varying rankings of the importance of factors across these other surveys as well compared to her survey. She also found that the ranking of her 10 identified factors varied across each project phase. Her factors included: project mission; top management support; project
schedule/plans; client consultation; personnel; technical task; client acceptance; monitoring and feedback; communication; and trouble shooting. This suggests that while the identity of success factors can be reasonably understood from the literature and there is general agreement about these factors being important, there is variation across both studies and phases as to the relative importance of these factors.

However, in the measuring success study by Ramage and Armstrong (2005), they find that the various historical methods for evaluating success encounter barriers to performance measurement. Difficulties arise in ensuring that measurement instruments guarantee reliability, validity and responsiveness. To assist in the categorisation of factors impacting on these aspects, they extend the framework developed by de Lancer and Holzer (2001) to produce a more comprehensive categorisation of influences. These may align, coincidentally, with the antecedents to Project Management Best Practice or Success necessary to be in place in the Aid / Relief Project Management research world.

They conclude that their study provides confirmation that two distinct categories of influences, namely rational / scientific and political / cultural, exist. They further, and most importantly, state that it is not possible to fully understand rational / scientific factors without consideration of political / cultural factors. It is interesting that, to date, these points have not been studied in detail to any great extent in research in the primary project management area.

### 3.3.1 Project Success / Failure

What is project success? How do we define project success and design performance measures that allow us to recognise the degree of success attained? There has been a great deal written over the years about project success, project management success and performance management to deliver success. A number of papers relating to critical success factors emerged during the late 1980’s—for example see (Pinto and Slevin, 1987) and de Wit (1988) who viewed success as being judged by the degree to which project objectives have been met. These views centred on
success of project management delivery processes and also acknowledged that project success is also a matter of the project stakeholder’s perception of the value (in their terms) of what was delivered.

A study of the “Criteria of Project Success: an exploratory re-examination” (Lim and Mohamed, 1999) is an example where the authors look at projects where some stakeholders perceive success and others do not on the same project. Whilst they also define criteria and factors leading to success as similar to Crawford (2000), they do look further into the perspectives of project success and break it down into macro and micro views of project success. They cite examples of projects which were successful for some but not for others. We have, in Australia, significant examples of these projects. The Sydney Opera house is generally acknowledged to have been a project management failure, but a major project success. It was delivered grossly over time and over cost budgets and yet it placed Sydney on the map and had many other longer term benefits. More recently, however, the Redevelopment of the Australia’s most famous international event venue, the Melbourne Cricket Ground (MCG) for the staging of the Commonwealth Games, International Cricket and Australian Football is viewed as a project management success and, interestingly, a project success, both at the same time. The MCG Project is quite significant and rare at the same time in that is perceived as a success by all the key stakeholders and more, but also satisfies project success at a micro and macro view as addressed in the exploration by Lim and Mohamed (1999). This project will be reviewed amongst others in the light of this literature and reflective practice in the following chapters.

In the paper on determining critical success/failure factors in projects (Belassi and Tukel, 1996) the authors sensibly work to group critical success factors according to those related to the project, those related to the project manager and the team members, those related to the organisation and those related to the external environment. They further cite that factors which relate to the project include the “urgency” of a project. They identify that
“projects which start after natural disasters are typical examples and that in these situations, not enough time is allocated for planning and scheduling projects”.
(Belassi and Tukel, 1996; p144)

They further identify that in relation to factors related to external environment, a number of environmental factors arise such as political, economic, and social, as well as factors related to the advances in technology or even factors related to nature, all of which affect project performance. They do not, however, critically review these aspects in their study. These aspects as well as the previously cited ones do have a major impact on aid projects. We will be critically reviewing these in the environment of aid projects, but necessarily first need to conclude on critical success criteria and factors in any project environment. This is the focus of our research overall.

Shenhar et al. (2001: p717) associated four (4) dimensions of success with a timeframe of expected results. Dimension 1 has a short term goal of project efficiency (meeting cost time goals). Dimension 2 has a medium term goal of customer success (meeting technical specifications, functional performance solving customer’s problem that triggered the project right through to matching intangible and tangible outcomes (Nogeste, 2006). Dimension 3 has a long term goal of business success (commercial success and gaining increased market share that for aid projects could be generating confidence, satisfaction and also influence). Finally, Dimension 4 has a very long term goal of preparing for the future (developing new tools, techniques, products, markets etc).

3.3.2 The Project Process - Projects, Problem Solving, Action Research

The alignment and commonality of core processes between projects, problem-solving, action research and learning has been undertaken in Australia in the context of capacity building projects involving Australian indigenous communities (McIntyre, 2002). McIntyre’s paper has an approach to its research and program/project development which is very relevant to our study. McIntyre’s approach was utilisation of an adapted version of a Community of Practice (COP) involving Participatory
Action Research\(^1\) (PAR) with communities. McIntyre suggests that other communities could benefit from the process that was developed for her project and that “Learning by doing” (through PAR) builds “spiritual wellbeing”. She also makes the point that PAR is potentially empowering if the participants who learn by the doing own the process. She stresses the need for empowerment, i.e.

> “helping people to achieve greater confidence and power in the following areas: resources, relationships, information and decision making” (McIntyre, 2002; p57)

All of which are also key to project management success.

### 3.3.3 Plan, act, monitor, evaluate, and reflect cycle

There is quite a degree of alignment/synergy/serendipity in the process of a research project, the process of the Project Monitoring and Evaluation, PM practice of Aid Projects (Action and Reflection) and the Action Research process and other change related process projects. Action research is a process that starts with planning, and then flows through to taking the planned actions, deeply reflecting upon the results of that action, consciously learning from that learning and then repeating the cycle (Greenwood and Levin, 1998, Kemmis and McTaggart, 1988, Coghlan and Brannick, 2005, Smith and O’Neal, 2003, McKay and Marshall, 2001)

Others have conducted rigorous research on a wide range of project types and found similar results. Terry Cook-Davies’ work for example (Cooke-Davies, 2001, Cooke-Davies, 2002) widely supports our field experience highlighted in this chapter.

Cook-Davies work also considered how projects fit into programmes, or antecedent processes, which enables us to understand project success in its broader context rather than as an individual project:

1. “*Portfolio and programme management practices that allow the enterprise to resource fully a suite of projects that are thoughtfully and dynamically matched to the corporate strategy and business objectives.*

\(^1\) PAR is a form of action research where the researcher actively takes part as a participant rather than being a bystander or advisor to others taking action (Action research will be discussed later).
2. A suite of project, programme and portfolio metrics that provides direct ‘line of sight’ feedback on current project performance, and anticipated future success, so that project, portfolio and corporate decisions can be aligned. Corporations are increasingly recognizing the need for ‘upstream’ measures of ‘downstream’ financial success through the adoption of reporting against such devices as the ‘balanced scorecard’.

3. An effective means of ‘learning from experience’ on projects, that combines explicit knowledge with tacit knowledge in a way that encourages people to learn and to embed that learning into continuous improvement of project management processes and practices.”(Cooke-Davies, 2002; p188)

With all of the above papers, it becomes clear that success needs to be investigated from the perspective of active project team stakeholders as well as from that of their client/benefit recipients and in the theoretical and empirical/practical review of critical success criteria and factors on any project and then, in particular, on aid / emergency relief projects. At the same time success is, overall, seen as a collaborative achievement involving joint-team action to identify problems and solutions to these problems and taking action to effectively deliver action, while learning from the process and fine tuning strategy and tactics employed in a constructive and reflective way. This leads to viewing project work that leads to successful outcomes as a process of problem solving, action research and learning that triggers a cycle of continuous improvement in PM practice.

### 3.4 Aid / Relief Project Management

Whilst there are several journals on international development and theses on a range of issues within that there is not a lot of mainstream work addressing aid / relief projects specifically.

The gap identified in PM practice as it is currently evolving in the commercial PM world is mirrored by observations in the field of how aid projects function and a growing body of literature that is critical of PM techniques being applied in what may be viewed as inappropriate situations. This suggest that there are a range of project planning and performance measurement approaches better suited for ambiguous or poorly defined aid or social service delivery projects (Earle, 2003, Sigsgaard, 2002, Ramage and Armstrong, 2005)

There are some useful papers on international development project management in a more general sense than on post disaster relief (Diallo and Thuillier, 2005), (Diallo and Thuillier, 2004, Ika et al., 2009). These address the cultural challenges as well as success and project methodology in particular instances. A good paper from a project management perspective in this respect analyses project management in Africa and specifically notes the “paucity in literature” written for project managers in developing countries ((Muriithi and Crawford, 2003).

There is also some research work in project / construction management work done looking at institutional / World Bank type projects and both their methodologies and success factors ((Long et al., 2004), (Baum, 1978). However, in the context of disaster or post disaster project management there is indeed a paucity of literature.

3.4.1. International Development Projects - Post Disaster

A recent series of natural disasters following the Earthquakes and Tsunamis that struck the South East Asia region starting on December 26th 2004, killing hundreds of thousands of people and leaving many more destitute and homeless, has triggered a surge in research interest in predictive and disaster response research and, to a lesser extent, how to improve delivery of critical aid relief projects.
Amongst a range of Institutions, the PMI responded generously with a post-disaster rebuild methodology (Project Management Institute, 2005). There has, however, been relatively limited research field research work into how to improve delivery of these kinds of projects from an effective and practical PM perspective that fully recognises the challenges and difficulties that inhibit PM best practice being applied to these aid / relief projects.

The project management (PM) profession has a long record of developing academic theory and best practice. Interested readers can refer to Morris (1994) for a thorough history of the profession. The PMI, for example, has a standard body of knowledge that has been refined several times and the current edition (PMI, 2004) has been extensively extended over previous versions. However, the PMBOK content still has limitations as pointed out by several PM profession thought leaders (Turner, 2000, Morris, 2001, Morris et al., 2000, Morris et al., 2006). It also tends to imply that its processes and procedures can be universally applied and this has been questioned with the re-thinking PM movement (Hodgson and Cicmil, 2006, Winter et al., 2006a).

The PMBOK’s formulation was geared to responding to highly visible and tangible projects such as those found in the construction, aerospace and shipbuilding industries. Interest in appropriate PM practices and approaches has also been focussed on project types for many years (Turner and Cochrane, 1993, Shenhar and Dvir, 1996, Shenhar and Dvir, 2004). There appears to be an appreciation that management of some projects, particularly those with difficult to define sub-goals (beyond the obvious highest level goal) requires managing complementarities (Whittington and Pettigrew, 2003, Pettigrew and Whittington, 2003) - achieving high levels of flexibility while maintaining structure.

### 3.4.3 PMI Post Disaster Methodology Strength and Weaknesses

The PMI Post-Disaster Rebuild Methodology (PDRM) book (PMI, 2005) begins with a foreword that acknowledges the roots of the document as being prompted by the need to find better ways to project manage the aftermath and recovery of two
severe disasters; the 2004 Tsunami that killed hundreds of thousands of people and Hurricane Katrina that deeply affected the US national psyche.

This methodology defines the intended scope, broad though it claims to be, but is nonetheless aimed at ‘rudimentary’ projects so one assumes that major reconstruction projects that would comprise much of the effort required after these two disasters may be excluded by this document. We do find some significant gaps in its applicability, perhaps this is due to the scope limitation. And the foreword also invites critical comments and feedback so we hope that this thesis will be welcomed in that light.

The stated intention of the methodology (PMI, 2005: p1) is to

“and consistency, as well as quality and accountability, of projects undertaken in a crisis/disaster rebuild environment. It can also apply to development projects aimed at building sustainability. This Methodology is based on PMI’s A Guide to the Project Management Body of Knowledge (PMBOK® Guide) – Third Edition. Unless otherwise noted, it should be assumed that the source of the information in the Methodology is the PMBOK® Guide – Third Edition.” (PMI, 2005; p1)

The authors of this Methodology then go on to say that it was developed specifically for developing countries with minimal infrastructure.

The rest of the book follows the project management body of knowledge (PMBOK) approach, being highly focussed upon PM process such as Initiating, Planning, Executing, Monitoring and Controlling and closing out a project.

The Methodology’s list of plans, taken directly from the PMBOK may look impressive and comprehensive. Anyone who is a PM professional, particularly those with PMI registered qualifications or who have undertaken higher learning degree courses, would be familiar with the philosophical underpinning of this document. Indeed the ‘feel’ of this book is that it is a cut-down version of the PMBOK (PMI, 2004).

The focus on traditional PM virtues of sound planning, intelligent project scoping, and effective performance measure definitions and sound monitoring and control has been reinforced in the PM success factor literature (de Wit, 1988, Pinto and
Slevin, 1987, Cooke-Davies, 2002). These factors, impacting upon construction and IT projects amongst others in Australia over the past two decades, have been shown to be consistent in a report on an ongoing study of project management success factors in Australia (Steinfort and Walker, 2007). The key to success on these projects supports the same rigorous application of planning, monitoring and control processes as espoused in the Methodology book (PMI, 2005).

Points of departure from the PMI methodology in these findings reported by Steinfort and Walker (2007) relate to the importance and stress laid upon understanding the organisational culture of client groups and stakeholders and the rigorous application of these principles in project scoping, briefing, planning and developing stakeholder engagement in bringing influential stakeholders within the project governance structure. The PMI Methodology has some strengths in that it flags these processes as important, but much of the knowledge in applying these principles requires deep PM skills and knowledge and a great deal of application of tacit knowledge that has developed in competent performers, or expert or virtuoso project managers (Dreyfus, 2004, Cicmil, 2003).

3.4.4 Project Type – Project or Programme

The book’s methodology is geared to responding to highly visible and tangible projects such as those found in the construction, aerospace and shipbuilding industries. Interest in appropriate PM practices and approaches has also been focussed on project types for many years (Turner and Cochrane, 1993, Shenhar and Dvir, 2004).

We also raise questions about the assumption of post-disaster rectification (or rebuilds) being a project. Post-Disaster work for major disaster relief such as the 2004 Tsunami may well be better considered as being scalable programs of work.

3.4.5 Cultural Bias

The Whitty and Schulz (2007) thesis argues that this PMI Methodology and the whole PMBOK in fact, is heavily influenced by a ‘Western’ Puritanical ideology seeing
performance in terms of the ‘iron triangle’ as being of paramount concern. We know that the world has a broad range of ways that people value ‘performance’ and those cultural norms dominate perceptions of what is correct and proper (Hofstede, 1991, Trompenaars, 1993). Further, recent studies undertaken as part of the Global Leadership and Organizational Effectiveness (GLOBE) study (House et al., 2002) also highlight marked differences in the way that Indonesians in Aceh, for example, would view as appropriate behaviour of PM team leaders compared to what US or Australian PM teams, for example, would deem appropriate.

In their paper on success criteria for international development projects (Khang and Moe, 2008) the authors note that “success factors for business or profit-oriented projects such as construction, information technology and defence projects have received significant research interest in the last two decades based on the pioneering research by Pinto and Slevin (1987, 1989). However, little of this research pays adequate attention to international development projects that possess significant differentiating characteristics, especially the social and not-for-profit nature of the projects, the complex relationships of the stakeholders involved, and the intangibility of the developmental results.”

Aid agencies are required to conform to stringent project reporting requirements in order to satisfy the wide range of stakeholders. Project monitoring and evaluation (M&E) information systems (IS), frequently a requirement for funding, are believed to inform the reporting process (Crawford and Bryce, 2003, Shenhar and Levy, 1997). The logical framework approach (LFA) is another tool widely used throughout the aid industry for project design and appraisal (Baccarini, 1999), and although much of the literature also promotes the use of the LFA for the purposes of M&E, it has proved inadequate (Earle, 2003).

The nature of the research question that interests us is firstly Project Monitoring and Evaluation (P.M. & E.) as a process which is used extensively in the aid world and also has the potential to be brought to bear effectively on a whole range of projects previously submitted to the PMBOK (product development/phases/management). What is outstanding about this form of project delivery is it that gives a lot more
power to learn and drive to those at the working community level yet it is still able to be planned and managed effectively. The further point of interest here is the point of Action Research and involving not just project management experts in Project Management Research. This can then be extended to action learning workshops and even Action Science (Greenwood and Levin, 1998).

3.4.6 Project Logframe

It becomes clear that there are different types of projects with very different needs and demands upon them and very different characteristics and, yet, professional bodies continue to assume a ‘one-size-fits-all’ approach is appropriate—the PMI with the PMBOK (PMI, 2004), or in many of the aid projects the logical framework approach (Logframe). Logframe stresses an hierarchical cascade of identified objectives linked to assumptions in terms of goal, outcomes, outputs and inputs /activities presented in a how-why chain (Baccarini, 1999) or variations on this theme that take into account means of verification and a time dimension (Crawford and Bryce, 2003).

Results Based Management, also referred to as Performance Management, is best defined in a comprehensive report by the Development Assistance Committee (DAC) Working Party on Aid Evaluation as a broad management strategy aimed at achieving important changes in the way project agencies operate, with improving performance on projects (achieving better results) as the central orientation. The development cooperation (or donor) agencies whose experiences are reviewed include USAID, DFID, AusAID, CIDA, Danida, the UNDP and the World Bank. Results based management with performance measurement is the process an organization follows to objectively measure how well it’s stated objectives are being met.

This document also addresses how to enable the effective incorporation of Logframe and Risk Management into Results Based Management whilst, at the same time, keeping a critical eye to their limitations. It concludes by pointing out that the challenge is to balance project performance monitoring needs at all LogFrame hierarchy levels, without overburdening the monitoring system or having it displace
evaluation or implementation activities. The related factor here is also that most NGO/Aid agencies are typically under-resourced and under-trained in project management or measurement of any critical form.

Very relevant to all this is an article in the Evaluation Journal of Australasia titled “Measuring Success” (Ramage & Armstrong 2006) They look at the Balanced Scorecard methodology which analyses an organisation’s overall performance from four perspectives: communities, learning and growth, internal processes and financial. This alignment and similar process leads to papers such as “An Adapted Version of a Community of Practice Approach to Evaluation Owned by Indigenous Stakeholders” (in Australia) (McIntyre, 2002). Her work also explains how she helps other facilitate the setting up of COP’s to use Participatory Action Research as an iterative means to assess its value and impact on improving governance, guiding and designing future development. This approach to problem solving and research and improving governance and management is owned by the participants and supports existing initiatives and priorities i.e. good project management.

The above literature and my experience on projects also strongly support stakeholder engagement for both external groups as well as project team and supply chain stakeholders, but there is an underlying assumption that remains tacit. This is the cultural dimension of stakeholder engagement whether in decision making or communication about progress, impact and other matters of interest. This is a relatively new area of study for the PM profession with a growing interest at the margins of the PM community that is gaining attention. The cultural factors, organisational and cross-national, have been understood from models of cultural traits developed in the general management literature (Hofstede, 1991, Hofstede et al., 1990, Trompenaars and Prud’homme, 2004, Trompenaars, 1993, Trompenaars and Hampden-Turner, 2004). These factors relate to an individual’s or group’s norms and behaviour being influenced along 5 dimensions. These are: Power distance (respect for and understanding of the sources of authority); Uncertainty avoidance (propensity to rely on rules and regulations and to interpret these more or less literally); Individualism (degree of focus on the individual compared to the collective
interest); Gender (adherence to a more macho or more feminine set of values); and Time Orientation (focus on long term or short term and seeing time as fixed (as in years months days etc) or seasonal).

3.4.7 Top Down, Bottom up – Learning Driving Projects

The PMBOK stresses the need for deciding what a project should deliver and how to plan to deliver that objective with a predominance to consider scoping a project using a work breakdown structure (WBS) approach (PMI, 2004). However, we see a tension between generally taking a top down and bottom up approach when defining the scope of a project. The bottom up approach essentially relies on a large number of well understood and well identified components that can be grouped into assemblies and these configured into subsystems, and thence into systems. A project becomes the summation of these systems that delivers a solution to a need. The point here is that the scope of delivery moves beyond delivery of ‘things’ to include ‘services’ i.e. knowledge of how to most effectively use the ‘thing’ delivered and how to ensure that maintenance of performance standards are optimised on these highly customised project deliverables (Hobday, 2000).

It is interesting to contrast the above tangible projects with how PM and planning for control is handled in other industries where different paradigms prevail. An example is in the areas where creative PM teams craft an emergent strategy (Mintzberg, 1987) through action learning rather than developing rigidly complete specifications in a set design to address a particularly well defined position.

Using Africa as a case study, Muriithi and Crawford (2003) explore the applicability of project management approaches, as represented in the most widely distributed and accepted knowledge and practice guides (PMBOK Guide, APMBOK (4th edition) and Australian National Competency Standards for Project Management) to projects in developing and emerging economies. Issues identified by them include: the need to cope with political and community demands on project resources; recognition that economic rationality and efficiency, assumed as a basis for many project management tools and techniques does not reflect local realities; and that use of
such tools and techniques will not enhance project success if they run counter to
local cultural and work values. We have tested the findings from analysis of
secondary data, against case studies of application in projects in East Africa and
drawn final conclusions and implications for project management of international
development projects.

The tools and techniques of PM themselves will not deliver successful projects if they
run counter to the local cultural and work values. We concluded that in Africa there
is a particular need to cope with political and community demands on the project’s
resources. Muriithi and Crawford (2003) conclude that there is urgent need for
empirical work to formalise a project management framework for Africa (or
developing countries and aid projects in general in that context), confirm which tools
and techniques of the present project management orthodoxy work, which ones do
not and why, and to articulate an effective indigenous approach to project
management for differing cultural backgrounds.

There is, at the same time, more recent work in this respect looking at disaster
management projects and an integrated approach to that ((Moe et al., 2007, Moe
and Pathranarakul, 2006). Whilst this does bring good vision to the success factors
and general approach to project management in areas such as

1. “Effective institutional arrangement.
2. Coordination and collaboration.
3. Supportive laws and regulations.
4. Effective information management system.
5. Competencies of managers and team members.
6. Effective consultation with key stakeholders and target beneficiaries.
7. Effective communication mechanism.
8. Clearly defined goals and commitments by key stakeholders.
9. Effective logistics management.
10. Sufficient mobilization and disbursement of resources.” (Moe and Pathranarakul,
2006; p408)

it does not proceed to review or recommend on the processes that could reinforce
these success factors. The work by Moe et al previously cited ((Moe et al., 2007, Moe
and Pathranarakul, 2006) does address the approach to natural disaster
management projects and does note the three pressures key in disaster
management, they being
“(1) subject to uncertainty;

(2) A need for integration; and

(3) undertaken subject to urgency.” (Moe et al., 2007; p786)

However, they do not look for all the relevant antecedents to project management practice as such. The papers previously cited on project success and project management success generally delineate between stakeholder values and project management linearity.

As stated, there is not a lot of literature on post disaster project management research. There are some papers on public project management and its critical success factors (Moe and Pathranarakul, 2006). They compare public projects and private projects and a project life cycle to disaster management. They make a very valid point that a pro-active approach enables activities that are planned and conducted before the disaster impact with an aim to effectively minimise the adverse impacts of the disasters. There are very few places in the world that do this. The predominant reactive approach is where, in contrast, activities of responses and recovery are conducted after the disaster impact.

These papers identify the similarities of phases between public project management and disaster project management as having three essential features – uniqueness, novelty and transience. These features, they point out, create three pressures; uncertainty, need for integration and subject to urgency.

They note that a disaster related public project management includes life cycle phases of prediction, which includes the initiation and planning, executing which include warning, emergency relief, rehabilitation and reconstruction. Completion tasks are transferring the reconstruction outputs to stakeholders.

Further to this in (Moe et al., 2007) it is proposed that a Balanced Score Card (BSC) approach could maximise the possibilities of desired outcomes from projects. They depict an integrated approach to natural disaster management at an overview level and then overlap the five phases of disaster management with the four perspectives of natural disaster management projects - the donors, the target beneficiaries,
internal business and the innovation / learning. They conclude by stating that these methods, in general, can provide a continuous assessment of performance in each life cycle phase in natural disaster management projects.

Disaster project management is unfortunately mostly called on in the poorer countries and in an aid, relief or international development setting. As stated in the first chapter, natural disasters occur more in high risk areas which are usually more in poorer regions. The majority of funding for these projects can come from funding through multilateral or bilateral aid agencies as outlined in a paper on success criteria and factors for international development projects (Khang and Moe, 2008).

They propose a life cycle based framework typically broken into the PMBOK type phases. They conclude that project management performance can be evaluated in each of the phases and that the framework presents a practical monitoring and evaluation tool. They also note some important practical implications, one being that the success of the early stages has strong impacts on the later stages. They also conclude that separating the success criteria and different phases for research enables more specific evaluation and research realisations.

A key paper on research in project monitoring and evaluation promotes a method for enhancing the efficiency and effectiveness of aid project implementation (Crawford and Bryce, 2003). The authors review the logical framework approach (previously outlined in this thesis). They also point out that the term “monitoring and evaluation” has come into usage in the aid industry over the last 20 years and that the notion of trying to measure the performance of a project throughout the life of the project, was promoted in the 1970’s. They look at the limitations of the Logframe as it presently exists and also note the philosophical position or schools of thought within the IS study are the design school (with which the LFA is aligned), and soft systems methodology.

The thesis by (Crawford, 2004) on the effectiveness of project monitoring and evaluation in the aid world gives a deeper treatment of this topic of aid / development project management and assimilates the work of Checkland and others
into aid Project Monitoring and Evaluation through the application of SSM conceptual modelling techniques. He also proposes a conceptual model to explicitly link the processes of monitoring and evaluation with organisational success and advocates a more rigorous application of ‘if and then logic’, thereby elevating the role of assumptions in the Logframe and re-conceiving ‘the project’ as a means rather than an end.

A study of the use of SSM being worked successfully to improve services to the community was found valuable to stakeholders in a non-profit organisation (Bhattacharjya and Venerable, 2006). Non-profit organisations provide a large number of services in the public interest and play an important role in Australian and global societies and they note that SSM is generally applied to situations where there are conflicts among stakeholders or where the goals of a system are debatable. A lot of post disaster project management is carried out by non-profit organisations around the world.

Their research aim was to explore the use of SSM as a planning framework. They report that a benefit of this SSM based Action Research study was the rich insight that it provided into the planning in a non-profit environment. They also noted that, on the practical side, these sorts of studies may help develop a toolset for use within the SSM framework and provide guidance for practitioners, but did not proceed to resolve or present these toolsets.

In a thesis on the role of knowledge management within the construction industry (Maqsood, 2006) it is noted that action research is carried out with a view to improve a situation by a team of professional action researchers and the members of organisation or community seeking that improvement (Greenwood and Levin, 1998). Action research combines theory and practice, researchers and practitioners, and intervention and reflection. Both the researcher and the practitioner emerge with enhanced learning.
In a paper on applied learning in the project construction industry (Maqsood et al., 2006) it is seen that research using SSM has the potential to improve the use of project histories and put these into practice. In further papers in the light of the value of practice research within the project industry (Maqsood et al., 2003, Walker et al., 2003) the particular advantage of using SSM for project research, because of its better insights into messy problems or projects where the goals and means are unclear, is both identified and realised.

Project Management is continually challenged in the need to produce outcomes of value to the key stakeholders and to their satisfaction. More often than possibly recognised, projects and programmes also need to produce both tangible and intangible outcomes that are agreed by the key players. These are continuing challenges for project managers around the world and particularly in aid and post disaster environments. In papers addressing this need (Nogeste, 2004, Walker and Nogeste, 2004) it is found that project stakeholders are able to identify, prioritise and define intangible project outcomes when provided with a process for doing so. Results indicate strong support for the process as a planning/review tool for projects required to deliver a combination of tangible and intangible outcomes. It is also seen that it is possible to increase the likelihood of project success by using methods to identify and define intangible project outcomes. Suitable research and methods for this very important need are also illustrated.

Projects do not work in isolation and not only are there valuable intangible aspects to their success, but there is their necessary development within a particular environment and a broader view. In this light the working of a group of projects in a programme which relates to works to align with a vision or particular strategy or common goal is fundamental to the understanding and best application of project management in any field. The key aspect in these environments is the process of evaluation. The evaluation of project outcomes (Liu and Walker, 1998) is analogous to organisational assessment and requires that the unique and conflicting definitions of performance be made explicit. Effectiveness is defined as “the degree to which an
organisation realises its goals” (Etzioni, 1961) and involves a comparison between the goal level and outcomes level.

In (Rose, 1999) he defines evaluation as ‘crucially and by definition, the act of attributing value’. He also note that ‘It is common to distinguish between summative and formative evaluation. Summative evaluation is intended to measure, describe and analyse what has happened and make judgements about its success or failure. Formative evaluation, by contrast, looks at past experience with the explicit intention of learning lessons and deriving guidance and direction for the future.’ He then highlights those elements of SSM which make it a suitable vehicle for evaluation design and puts that ‘it is potentially well suited to the evaluation of complex public service initiatives’.

(Rose, 1997) offers that SSM may be a ‘problem structuring tool, a good fit research tool, a triangulation tool, a theory testing and generation tool’. It is also put that the epistemological principles of the methodology do facilitate the evaluation of soft benefits.

Molly den Heyer (den Heyer, 2001) notes that General Systems Theory has three distinct branches and that ‘they are: hard systems, which are closed, representations of structures; open systems, which are dynamic evolutionary processes of change; and soft systems, which are methods of modelling, interpreting and planning interventions.’

She then goes onto point out that the Logical Framework Analysis (LFA) is a model of a ‘fixed’ or closed system, but that open systems create more dynamic and complex understandings of systems that better reflect the program and project implementation process.

She points out that the soft system’s cycle could easily be matched with the learning cycle (described as action, reflection and adaptation). She notes that given perspective “traditional logic models illustrate a hard systems perspective of social development programs”. The LogFrame typical Goal / impact, Outcome, Output become a key reference for this development work. Outputs are closely related to
deliverables and outcomes “become the focus of the majority of evaluations due to their accessible time frame and depth of change.” Outcomes are the base reference for evaluation and outputs are the base for monitoring hence the often used term in the aid / development world - Monitoring and Evaluation (M&E).

den Heyer concludes that tradition logic models (Logframe) are noted for being inflexible due to their roots in hard system which is a similar point to the paper by Earle previously cited (Earle, 2003). She concludes on the point of program having three logic models exiting within it at the same time and the need for ‘open’ systems approaches and not just ‘closed’ ones.

(Checkland and Winter, 2006) also note that ‘SSM is relevant to both the content of a perceived situation (SSMc) and the process of dealing with that content (SSMp). This leads to planning the approach (SSMc) and planning the intellectual process (SSMp) and they note the need for a programme management framework to be developed as well as a project management framework.

The importance of context in programme and project management is highlighted (Pellegrinelli et al., 2007) where the authors review a programme management framework widely used in the UK, namely Managing Successful Programmes. They note in their conclusions that “the research highlights an apparent gulf between the broad, holistic perspective on programme management ...and the more reductionist, project-based underpinning of the tools and techniques. The mechanistic application ... tends to support a tactical, controlling agenda rather than a strategic, empowering agenda.”

They note also that “research raises the importance of programme context, brings it on a par with purpose and process and exposes the part context plays in shaping the course and outcome of programmes”. It also shows how programmes accommodate shifts in direction.

Programme management works to create a coherent framework for understanding and exploiting the capacity programmes have to organise project based change (Pellegrinelli, 1997). They note that a programme is a framework for grouping
projects to achieve a major set of benefits and they conclude that the emergence of programme management as a distinct discipline reflects project management’s strength and appeal as much as its weaknesses. We will look at all of this and more in the following chapters.

There is also a substantial body of literature published by a wide range of aid and development agencies, providers, non government organisations (NGO’s) and government organisations in this field such as the United Nations, World Bank, Red Cross, Care International, USaid, AusAid. All of these have helped shape the research findings and work in the field as well.

3.5 Antecedents to PM in the Aid / Relief Area

As previously pointed out, there is a gap in the academic literature on the antecedents to project management best practice. In fact, there is, again, an even larger paucity on the subject than any of the other international or aid / relief project matters.

Given the challenges and difficulties that inhibit PM best practice being applied to these aid / relief projects this is quite surprising in the first instance.

Some of the papers previously cited do break the project success factors onto micro and macro, internal and external environment factors such as political, economic and social, rational /scientific and political / cultural, but they do not review any of these as antecedents to project management.

In the typically high risk and unstable environment in which these disasters occur, and can recur, normal stable project management can be severely challenged and the antecedents are even more important than the project management, for it may be that without them the project management cannot be.
The previously cited work by Cooke-David (Cooke-Davies, 2001, Cooke-Davies, 2002) does, at least, consider how projects fit into programmes so as to allow us to better understand project success (or failure) in its broader context.

Whilst he doesn’t get to the broader view of antecedents to effective project management, he does conclude it is difficult to make significant progress in these overarching aspects, which appear to be critical to success. The last of these aspects being effective means of ‘learning from experience’ on projects. They combine explicit knowledge with tacit knowledge in a way that encourages people to learn and to embed that learning into continuous improvement of project management processes and practices. Therein lay serious challenges to project management in both planning and action.

The other aspect here is one of practice. This research thesis is addressing the antecedents to project management best (or achievable) practice. The PMBOK and similar BOKs are really about knowledge and process, but not exactly practice. How do we review best practice or even practice? Joseph Raelin looks towards an epistemology of practice and asks the question;

“How might theory and practice be united in an epistemology of practice, both as a basis of learning as well as a basis for performance? He goes onto note that “In particular, practice epistemology will likely resist out Western inclination, our near obsession, with measuring items so as to believe we know them and that ultimately, a practice epistemology should be able to target learning outcomes that are specifically practice-based, in other words, that derive from learning within the practice world”. (Raelin, 2007; p508)

In the paper on the changing paradigms of project management it is argued that

“An increasing body of data from research suggests that many project success factors centre on human relationships that many developmental problems are grounded at the cultural level, and that projects often lack good communication with stakeholders outside the project team.” and then “paradigmatic expansion provides increased opportunity for practitioners and researchers. A wider variety of paradigms employed within the field increases the ways in which existing techniques
are understood, allowing familiar techniques to be applied to new situations in novel ways.” (Pollack, 2007; p270)

3.6 Action Research

Project Management and Action Research - “are they two sides of the same coin?” - is indeed a good question. It is addressed in the aspect of the organisation of health services in New Zealand. Whitehead puts forward that organizational action research and project management have many shared properties. He see that

“Both share the goal of creating knowledge while attempting to uncover scientific discoveries that also solve problems”. (Whitehead, 2005)

He also sees that where positivist studies are employed the aim of action change and improvement is only ever a secondary purpose.
Action research and project management are primarily about organizational change and reform. It can also be argued that both mirror the plan, do, study, act quality cycle or the plan, do, check, reflection cycle referred to previously in the paper on collaborative academic / practitioner research in project management (Walker et al., 2008c).

A similar reflection, but from a vastly different environment, is made in a paper on international education for action research – the Bamenda model (Hughes et al., 2004). They see that most action research projects are probably practical action research, which takes a pragmatic approach to solving problems, often arising in professional practice. They also note that making models is a useful pastime in action research and that 30 models of action learning and action research have been identified. They note that perhaps the clearest is that (Kemmis and McTaggart, 1988) where we see that action research is a methodology that is highly appropriate for capturing practice and with the cycle of plan, act, observe and reflect. This is very similar to the four stage action research and project cycles referenced earlier.

Hughes et al then compare their Bamenda model to the project management cycle and note that their action research cycle takes place within the context of a continuing project, where detailed situation analysis always precedes action research plans. They frame their situation analysis in the context of project management. They go on to show the clear correlation between the project management cycle and the action research cycle and that situation analysis links action and research.

The Bamenda model is an outcome of international co-operation between action researchers from three continents. Action research has had very wide use over 40 years. In another partnership (Johansson and Lindhult, 2008) in their paper on “Emancipation or workability?: Critical versus pragmatic scientific orientation in action research” see that the purpose of pragmatic action research is the improvement in workability of human praxis.
Roger Attwater in his paper on “Pragmatism, Philosophy and Soft Systems in an Upland Thai Catchment” (Attwater, 1999) sees three modes of action research – technical, practical and emancipator. Peter Reason in his paper on “Pragmatism philosophy and action research: readings and conversation with Richard Rorty” (Reason, 2003) noted that the fourth reason they engaged action research was to contribute to the understanding of human and community project values.

A paper by Sankaran and Tay is also notable in that it addresses research in international development projects and in a range of cultures and countries particularly relevant to this thesis. They also note that

“If you consider how experienced project managers solve ‘unusual’ problems that arise in their projects, you will notice similarities with the processes used in the research projects discussed. Project Managers often make sense of the problem situation through a combination of hard facts, observations and ‘selective’ communication with stakeholders before they come up with a workable situation. Often, the solution is implemented using a plan-do-check-act process that resembles an action research cycle.” (Sankaran, 2007a; p120)

We see action research with its four stage cycle as the key for the question and challenges of this project management research. At the same time action research contains soft systems methodology which has been engaged for significant project management research (Winter and Checkland, 2003, Winter et al., 2006a, Winter, 2009) (Maqsood et al., 2006, Maqsood et al., 2003, Maqsood et al., 2005, Maqsood and Finegan, 2009, Walker et al., 2003, Walker et al., 2005, Bhattacharjya and Venerable, 2006, Crawford and Pollack, 2004, Rose, 2002, Checkland and Poulter, 2006, Sewchurran and Barron, 2008).

3.6.1 Soft Systems Methodology Action Research

Soft systems methodology (SSM) has a long and impressive record of dealing with messy situations and giving a much better understanding of the context, environment and situation analysis leading into problem identification and project planning leading to outcomes mapping. It is also very good in addressing “soft”
concepts as well as “hard” ones. The issues we are addressing in this thesis need all of this at a minimum and soft systems is an appropriate methodology, particularly to deal in the messy front end of antecedents to project management in aid / relief projects.

Soft systems methodology works within an action research paradigm and exhibits similar capabilities to those in other branches of action research. Action research methods can build rich pictures of the front end situation context and environment for programme or projects. In their paper on emancipation or workability in critical pragmatic scientific orientation in action research (Johansson and Lindhult, 2008) the authors see action research through different methods can achieve a good view of the context, setting and challenges of different environments including, but not limited to, SSM.

Checkland, the originator of SSM, when reviewing the development and evolution of SSM over a thirty year span concluded that it placed emphasis finally on three key context questions related to what he calls the “root definition” of models for solution and that is the questions are: What to do (P), How to do it (Q), and why do it (R)? (Checkland, 2000). Similar questions are applied through different forms of action research.

(Walker et al., 2008c) see that PM practice often seems to emerge out of coping with complexity and apparent chaos and this is a key focus in this thesis. The same authors also see the keys of the possible questions of what, why and how as do several other treatments in respect of research and action.
Figure 3.1 A model of Reflective Learning (Walker et al., 2008c)

In this more rigorous method (see figure 3.1) they refer to a model by Lauriol in 2006 (Lauriol, 2006) which coincidentally also works through the process of leading questions of what, why and how? This is very similar to the context question for situational analysis for both action research and programme theory. There is very good synthesis in this process in both the reflective practitioner frame and the overall action research and programme to project epistemology, very good indeed. The other aspect of this model is that it may encompass a range of perspectives and encompasses the action research part as well, given the very strong alignment with the processes developed elsewhere and in this research to date with respect to the critical pragmatic perspectives.

In the less academic literature of the aid world the International Development Research Centre, in its paper on Action and Reflection (McAllister and Vernooy, 1999) also works on a series of questions including why, for whom, what, who, when and how to clarify the research and action to outcomes.
So we see the key queries of what, why, who, how and when as fundamental to the context of our research and understanding through this. In papers on action research within organisations and university thesis writing (Zuber-Skeritt and Perry, 2002, Zuber-Skerritt, 2002) the what, how, who, when questions are seen as fundamental to the front end context and understanding the immediate and long term environment for the research and action planning. They further see that the related programme management is best given vision by such questioning.


There are, of course ways of combining these frames into workable methodologies for this and further research. The key backgrounds of LFA / change theory, M&E / social change theory and PM / programme and physical change theory do have common alignments and workings and we will review these and work through them in the following chapters. Suffice to say there is a plethora of literature in the collection of all these and it looks to be enough with which to enable and form our way through this bigger understanding of antecedents to project management and in the aid / relief project area.

In summary on this potential of action research there are so many to quote but perhaps in the way best seen forward it is the following;
“We argue for the rejection of naive rule-based formulae and for recognition of the impact of contextual and pragmatic concerns, so that the potential for the added value of action research might be realized.” (Hope and Waterman, 2003b; p120)

Action research obviously holds the key in respect of the most appropriate methodology for research and reflection of this thesis. The paradigm that looks to work best in that frame are the critical and the pragmatist, or some combination if that is possible.

3.6.2 Action Research – Critical and Pragmatic

There has been quite a notable resurgence of late in literature on pragmatism. Work such as pragmatic action research within and between communities and communities of practice (Attwater, 1999, Crist et al., 2009, Elkin and Cone, 2009), (Johansson and Lindhult, 2008, Kadlec, 2006).

There is also significant reference to critical reflection, reflective practitioner action research and the critical reality challenges of a rapid assessment or crisis environment in high risk situations, where practical results are needed with the least resource loss. We also see the reflective practitioner action research epistemology as the theory of knowledge, including a theory of knowledge acquisition. The relationship between particular models of action research and types of reflective processes is graphically demonstrated by Grundy’s (1982) typology, that distinguishes between technical, practical and emancipator models of action research (Leitch et al) (Ballantyne, 2004). We potentially have all three types in this research. However, this can be accommodated in our developing model where the outcomes can be defined in respect of each of these.

This, again, takes us to the paradigm of pragmatism. This research, of both reality and necessity, begs an improving, experimental, co-operative, collaborative, practical, action oriented and experienced based, reflective orientation and the table below (Johansson and Lindhult, 2008) outlines these as belonging to either a critical or pragmatic paradigm.
Table 3.1: Comparison between a pragmatic and a critical orientation to AR (from Johansson and Lindhult, 2008)

<table>
<thead>
<tr>
<th>Issue</th>
<th>Pragmatic orientation</th>
<th>Critical orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>Improvement in workability of human praxis</td>
<td>Emancipation</td>
</tr>
<tr>
<td>Action focus</td>
<td>Experimental, cooperation</td>
<td>Resistance, liberation</td>
</tr>
<tr>
<td>Orientation to power</td>
<td>Power as ability to do, collaborative relation, practical agreement is striven for</td>
<td>Dominant interests, coercive, conflict is acknowledged</td>
</tr>
<tr>
<td>Role of researcher/related knowledge</td>
<td>Closeness, practical knowledge</td>
<td>Distance, episteme, reflective knowledge</td>
</tr>
<tr>
<td>Research focus</td>
<td>Action, dialogue</td>
<td>Reflection</td>
</tr>
<tr>
<td>Development focus</td>
<td>Experiential learning, learning by doing</td>
<td>Consciousness raising, reflexivity</td>
</tr>
<tr>
<td>Type of dialogue</td>
<td>Cooperative, experience-based, action-oriented</td>
<td>Promote openness to the other</td>
</tr>
</tbody>
</table>

We can see again that there exists a tension between these paradigms, but in this real world research we cannot work in one in isolation from the other. We again see the need for the integration of the pragmatic context with the project frame and the synergising of these to enable the most workable, sensible pragmatic validity, but knowledgeable frames and value outcomes. We need to be able to realise value or work through a process which ‘creates value’ (Zuo et al., 2009)

3.7 Logframe / Project Monitoring and Evaluation

The epistemology of practice and theories of change differ depending on your worldview and experience. Whilst the Logical Framework has a similar lifespan to date as that of the origins of project management, it is still interesting in how differently it approaches the front end of project planning and implementation. It is
also interesting to look at its different development and how both worlds seem to have developed in some ways in parallel paths and in other ways so differently.

What is so interesting in this thesis is how at least Logframe, regardless of its other shortcomings, (Earle, 2003, Gasper, Gasper, 2000, den Heyer, 2001, Crawford, 2004, Crawford et al., 2004) deals with, or at least attempts to, the possible antecedents to management practice and in the aid / relief projects. It has also had significant and ongoing use over half a century now and is still the preferred method of project development in the aid and international development worlds.

Its history is outlined in earlier chapters and it is still of fulcrum value in this overall research and solutions to be found through that. To give it even further relevance it has been further employed by the EU in their projects to the value of $ billions and, to date most organizations including the main aid agencies and key groups such as the U.N. and World Bank continue to use it in further developed forms to this day for some of their most important programs and projects. 

The use of Logframe is also incorporated in project management processes in the aid / relief world within other methods known as Project Cycle Management (PCM), Project Planning Monitoring and Evaluation (PPM&E or just PM&E), ZOPP (German acronym for Project Planning and Goal Monitoring(Speckley and Union, 2004)). There are also various non academic publications and academic written around these and previously cited.

3.8 Community Programme Management

The scoping, planning, implementation and evaluation of community programme management have also been in use for over half a century. There are examples of this in the above literature and the evaluation and improvement of these overlap in the Logframe, Evaluation and Project Management worlds.

However what has been brought out by recent literature in these improvements though are a more effective understanding and effect of praxis (Johansson and Lindhult, 2008, Raelin, 2007, Cicmil, 2006, Cicmil et al., 2006, Cooke-Davies, 2001). Recent work in this respect can be exemplified by papers such as “Engaging community in a cycle of praxis” by Totikidis and Prilleltensky and another paper by Prilleltensky “Value based praxis in community” where they see the key questions of what, why, who and how as key to resolving the context and the frame for praxis, and by doing this they can simplify the community response and increase their ownership of it.

3.9 Leadership

Leadership and project leadership are effective in different ways in different cultures (Kriger and Seng, 2005, Surie and Ashley, 2007, Norrie and Walker, 2004, Cavaleri and Seivert, 2005).

There are, however, repeating aspects of leadership in any of the cultures referred to in these papers. An interesting aspect brought out in the work on leadership and meaning (Kriger and Seng, 2005) is the repeating nature across cultures of the recognition of characteristics including integrity, compassion/empathy, honesty/truthfulness, courage/inner strength, trust, service to others, guidance amongst other characteristics as key to leadership. These aspects often get overlooked in the more linear treatment of traditional project management or even its possible antecedent or front end factors. Coincidentally, they may even become more relevant in times of crises and high risk.
Whilst there are common characteristics of leadership across different cultures, leadership may be viewed through different lenses in different environments and contexts. In this research we are primarily focussing on leadership within the context of project management and its ‘front end’ or enabling factors. In comparing the leadership styles of functional and project managers (Turner et al., 2009) it is noted that leadership is not recognised in the highest ranking success factors for project management whereas it is in the management literatures. Their study addresses the emotional intelligence (EI) and the quotient of leadership which is becoming increasingly more recognised as a core competence in project leadership and management generally.

On a related theme, whilst research on EI in project management is scarce, an interesting treatment of its development in project teams (Turner and Lloyd-Walker, 2008) also provides a good definition of EI (from Salovey and Mayer (1990, p. 189) as

“the subset of social intelligence that involves the ability to monitor one’s own and others’ feelings and emotions to discriminate among them and to use this information to guide one’s thinking and actions” (Turner and Lloyd-Walker, 2008; p513)

The interesting aspect that is drawn out in this study is the extent to which leadership styles of project managers may influence project success. They conclude by noting that the development of EI can have a positive impact on project success.

They also relate that leadership style can contribute to, or hinder, project success. An earlier paper on leadership for construction project management (Toor and Ofori, 2008) addresses authentic leadership and its definition as

“Authentic project leaders possess positive values, lead from the heart, set highest levels of ethics and morality, and go beyond their personal interests for well-being of their followers. They capitalize on the environment of trust and are able to motivate people and accomplish challenging tasks”(Toor and Ofori, 2008; p621)

They also note that authentic leaders understand the demands of the project from the key stakeholders’ point of view, possess the skill of leadership and give their best to make the project a success for all stakeholders.
A study of EI and leadership styles in project management found that EI affected leadership and enabled more open communications, delegating and proactive leadership styles, which is consistent with the need for such in the context of the antecedents to project management practice and its antecedents. This is consistent with the non academic paper previously referred to in this thesis ‘Above and Beyond Project Management’ (see Appendix 2), where the project success factors were then seen as needing a management style that enables leaders to develop leadership, delegation and shared goals.

A good paper on authentic leadership for 21st century project delivery which seems to ably summarise all of the above (Lloyd-Walker and Walker, 2010) notes that the foundations of authentic leadership are trust and commitment. Whether they are key success factors or not will be researched in the chapters to follow, but these issues are indeed important to these programmes and projects in the context of the research we are carrying out here. They also look at the links between authentic leadership and ethical behaviour which is very important, especially in the community and community of practice research here.

They further note that emotional and social programme management competencies are being found as increasingly important, but that project managers display less of these, traditionally, and more of the more set managerial competencies. The need for this wider social understanding is now pressing on project management leadership as it moves to the wider frames of programme management and a better understanding of the importance of antecedents to project management for project success. They look to a capability maturity matrix and for further research into these areas to understand and enact the key factors in project leadership to project success.

What becomes clear in all these papers is that leadership needs to be at a project and programme level and embedded in the values and factors for antecedent and project practice, however it is not considered a prime factor in itself and must work within the context, culture and environment in which the projects are being carried out.
Project leadership in the practical sense is more focussed on project direction towards agreed objectives, outcomes and the methodology and understanding of how to plan and achieve those together. Again, the antecedents to these within communities and communities of practice do not generally get sufficient focus and this is another aspect both of project management and its recognised antecedents which will be more closely reviewed and reflected upon in the course of this thesis.

What is also interesting about these issues on authentic leadership, EI and related issues, is that it also gave me better understanding of my own journey in respect of what I touched upon in section 1.2.2.2 - personal context – role and experience as a valid observer/participant to this study and section 2.6.2 Why do this project? In respect of issues raised in these sections regarding the interaction of the personal level and through the professional process and methodology, it is interesting to reflect upon how these issues and challenges of authentic leadership and emotional and other intelligence affect or are enabled by the key factors in this research, and are they in themselves key factors in the eyes of the reflective practitioners and communities of practice?

3.9 Summary

In this chapter we reviewed and reflected upon PM research and success factors, programme / project processes and methodologies and their similarity to those of action research. We contrasted the different methods of the traditional PMBOK PM with those of aid / relief PM and through that, their core synergies with action research and project cycles. We also reviewed the vast range of action research and its applicability to this work through its traditional frame and also more technical applications such as soft systems methodology and critical pragmatic action research.

In summary and looking forward what becomes clear in this literature review is that gap between research & effective practice in these areas and in particular in
• Understanding the core processes synergies and value in each of the PM worldview methods
• Post Disaster PM methodology and implementation
• Understanding of the key need for context, stakeholder engagement
• Previous research into the antecedents to PM to provide support
• Synthesis of the discipline and its research paradigm in these areas
• Agreed core PM and research methods
• Understanding the antecedents to project practice and project research

At the same time the literature review did reveal
• Very little available on aid / relief / post disaster project success from outset
• Key project success factors in traditional PM
• Significant work on context, some notable on Logframe from both academic and institutional sources (e.g. World Bank, U.N., N.G.O publications)
• Extensive 3 worldviews on action research, paradigms, critical theory, pragmatism and praxis (all range of sources)
• Groundwork on programme monitoring & evaluation
• Extensive publications from UN / EU / Agencies / NGO’s
• Recent growth in strategy / portfolio / programme literature
• Front end to projects and in SSM but in three separate worldviews
• Extensive work and epistemology on action research and SSM
• Strong interest in research in PM practice, praxis and the actuality of projects through the experience and understandings of practitioners in the field
• Renewed focus on reflective practice and community of practice research

At the same time, we did realise the equal importance of practice to research and research to practice. Here we have the advantage of the overlap of 40 years of the epistemology of practice through the traditional project management, aid / relief and my own personal self reflective practice in both these worlds and more.

Through all of these lenses we can then view our philosophy, possible paradigms and methodologies and the appropriate research design, planning, action research and practice to resolve our key research objective, questions and outcomes in the important chapters to follow.
4 Methodology and Planning / Research Design

“...To develop fuller problem statements, create more diverse thought trials, and apply multiple selection criteria more consistently to these thought trials” ..... “An understanding of the terms theory, validation, and quality of theory is necessary for an understanding of the model” .... “an ordered set of assertions about generic behaviour or structure assumed to hold throughout a significant broad range of specific instances” (Weick, 1989)

4.1 Overview

One’s understanding of reality, knowledge and the ways to realise them may be formed in one’s philosophy. This also influences our worldviews and how we plan, do, review and reflect upon this reality and knowledge and the ways to achieve and validate these. We need to clarify our position so that our work is understood in its scope and progress.

Most research in community settings, of its very nature and necessity, cannot be purely or fully objectively disconnected from its context or environment and set in a laboratory as pure positive science may otherwise claim to be able to be.

How we understand and reflect upon reality is referred to in philosophical terms as ‘ontology’. Without getting too caught up with philosophical terms which may tend to divide or confuse rather than communicate and inform people, what this really means is that we need to recognise where we are coming from in terms of our philosophical values, assumptions which form our approach through a ‘worldview’ or ‘lens’ to frame our understanding or point of view of a particular situation.
These may differ from an individual, organisational, or even country view. Within this research thesis we may refer to ontology more as our worldview or lens. In traditional project management frame it would be viewed as our scope.

From this point of view we may then work our theory of knowledge, its constructs and methodologies and how we may research, validate any new knowledge gain or greater understanding of the key factors or processes we are reviewing and reflecting upon. Again, without wishing to get too caught up with large words which tend to leave most people wondering and wandering, in philosophy our theory of knowledge, what is viewed as valid and the frame of that validity and how we add to our knowledge and understanding is called our ‘epistemology’.

A research paradigm works with a defined ontology and through a defined epistemology with a methodology which then develops within those frames to enable methods to test and validate knowledge gain, understanding and theory to action or action to theory.

In this chapter we will review, within the relevant worldviews, the most appropriate theories of knowledge, but, more than that, we will need to achieve understanding from the application of the theories of knowledge and working of how to best apply them within context and the given environment.

“Knowledge presupposes information and understanding presupposes both. One can survive without understanding, but not thrive. Without understanding one cannot control causes; only treat effects, suppress symptoms. With understanding one can design and create the future.” (Gharajedaghi. J and Ackoff, 1984; p 289)

With respect to learning the age old ‘planned vs. actual’ method is of fundamental value to our knowledge gain both in the monitoring of actions and evaluation of outcomes.
“Learning results from being surprised: detecting a mismatch between what was expected to happen and what actually did happen. If one understands why the mismatch occurred (diagnosis) and is able to do things in a way that avoids a mismatch in the future (prescription), one has learned.” (Gharajedaghi, 1999; p75)

We can also work and reflect upon a hierarchy of ‘information’, ‘knowledge’ and ‘understanding’ (Gharajedaghi, 1999, Gharajedaghi. J and Ackoff, 1984) and through this, see understanding as an advance upon knowledge. What we therefore review is how we gain knowledge through action research, its methodology and how that may be an antecedent to understanding.

“Well begun is half done” Aristotle

“Tell me and I will forget, show me and I may remember, involve me and I will understand.” Chinese Proverb

“For the things we have to learn before we can do them, we learn by doing them”. Aristotle

“Management is, above all, a practice where art, science, and craft meet.” Henry Mintzberg McGill University

“The conventional definition of management is getting work done through people, but real management is developing people through work.” Agha Hasan Abedi
4.2 Antecedents / Project Management Success Factors

Most of the literature on success and failure is on project management or projects. There is very little on antecedents that could enable or disable those. There is some recent work on programme and strategic management, but on the questions of the antecedents to project management best practice, very little indeed. The front end factors to project management have received some recent treatment (Cooke-Davies, 2009, Williams et al., 2009), but at the time of planning and actually doing this research in the field there was not a lot of academic literature found on this subject. But even with these latter publications the environment in which they are set, whilst leading to project management best practice, does not analyse or research antecedents in particular.

Action research has been referred to as a paradigm, meta-methodology or mostly a research methodology. As previously outlined, this research is about practice and therefore needs to be working in action and practical, action research and, in this case, soft systems methodology (SSM) generally looked to be the best methodology to review the aspect of the antecedents to project management best practice (Rose, 1997, Crawford and Pollack, 2004, Checkland, 2000, Crawford et al., 2003, Maqsood et al., 2003, Sankaran et al., 2009). Where a project situation is ‘messy’ with ‘fuzzy’ objectives from the outset, the real pictures quite hard to grasp, and there is a wide divergence of stakeholder engagement, there is the need to develop methods and solutions with a mixture of hard and soft outcomes. There are other choices in action research in both the social science area and the community engagement to programme and project management outcomes which may also be employed, but because of the previous supported and effective work in this area, SSM was decided on as the most likely for the core success in this most challenging area in the aid / relief field.
The practice aspect was also initially seen to be best researched through action research methodology, but in this case through critical reflective practice. The lessons to be learned from aid / relief projects, again, are then understood, possibly, through the same action research meta-methodology.

As touched upon in the literature review section, action research, in its different modes, has a range of approaches to the front end of PM in action and also in research projects. In fact, the more this work is reviewed the more the synergies between the action research front end and the programme to project management front end become apparent. The obvious benefit of this is that whilst we may be using some different methods in some different phases of the research project, we will have one consistent overall or meta-methodology.

Action research, as noted earlier, is typically worked through repeating cycles of plan, do, review, and reflect. This is alternatively seen as a spiral or as interlinked cycles(see Figure 4.1). At its simplest the cycle by Dick referenced and (Sankaran et al., 2009, Sankaran, 2008) see that

"You pursue both action and research in an action research project. The research is conducted in cycles with critical reflection at the end of each cycle ....It is also usually participative and qualitative although quantitative methods are used when the situation demands it. [...] Therefore, is quite common to find a variety of methods used in action research to confirm/disconfirm your findings." (Sankaran et al., 2009; p120)
There are several iterations of very similar cycles cited throughout the literature (McKay and Marshall, 2001, Kemmis and McTaggart, 1988, Zuber-Skeritt and Perry, 2002, Australian Agency for International Development, 2003) (Kusek and Rist, 2004, Crawford, 2004) which can be best summarised as shown in Figure 4.1.

In chapter 1 the rationale and need for the research was outlined as summarised below

- Significant need to understand antecedents to project management practice
- Need to resolve antecedents to and PM best practice in risk environments
- Individual rationale i.e. my career span as a reflective practitioner
- Project management practice and project success
- Need to improve the effectiveness of PM in general and especially research into PM in high risk environments & provide BOK’s & support for agencies, communities & practitioners

The gaps in the knowledge were outlined in Chapter 3 as

- Large gap between research & effective practice in these areas
- Understanding the core processes and value in each of the PM worldview methods
- Post Disaster PM methodology and implementation
- Understanding of the key need for context, stakeholder engagement
- The effectiveness of research into PM to provide support
- Synthesis of the discipline and its research paradigm in these areas
- Agreed core PM and research methods

The Literature Review also revealed

- Very little available on aid / relief / post disaster project success from outset
- Key project success factors in traditional PM
- Significant work on context, some notable on Logframe from both academic and institutional sources (e.g. World Bank, U.N., N.G.O publications)
• Extensive 3 worldviews on action research, paradigms, critical theory, pragmatism and praxis (all range of sources)

• Groundwork on programme monitoring & evaluation

• Extensive publications from UN / EU / Agencies / NGO’s

• Extensive work and epistemology on action research and SSM

• Recent growth in strategy / portfolio / programme literature

• Front end to projects and in SSM but in three separate worldviews

• Strong interest in research in PM practice, praxis and the actuality of projects through the experience and understandings of practitioners in the field

• Renewed focus on reflective practice and community of practice research

4.3 The Research questions to address these gaps

• How can we best understand PM success and its antecedents or contextual problems in general?
  • How can we best understand PM success and its antecedents or contextual problems in aid / relief projects?

• What are the PM best practices that should, in principal, be universally applied with actual implementation dependent upon the project context?

• How can we best develop an approach that can be replicated in applicable situations and to what extent are these models able to be generalised?

4.4 Research Objective Outcomes

The overall research objective outcomes are;

1  Summarise project management success / best practice and their antecedents in general practice

2  Realise & validate a significantly improved methodology for the antecedents / necessary front end & PM through lessons learned from aid / relief projects.

3  Provide AR and PM process improvement so that people close to the project can bridge identified gaps in PM practice including, but not limited to, aid / relief projects.
Each of these outcomes will be reflected upon through a research cycle which is then realised or tested by a series of outputs which are reviewed through each of the action cycles delivering each output. The process by which to do this is outlined and worked through in the following pages.

Table 4.1: Research objective and key research outcomes and action cycles

<table>
<thead>
<tr>
<th>Thesis Objective</th>
<th>Outcomes</th>
<th>Action Outputs</th>
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<tbody>
<tr>
<td>Understand the antecedents to PM Practice – Lessons to be Learned from Aid / Relief Projects</td>
<td>1. Summarise project management success / best practice and their antecedents in general practice</td>
<td>1.1 Summary Critical success Factors for all range of Projects and Aid In Particular</td>
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<tr>
<td></td>
<td></td>
<td>1.2 Understanding and synthesising the methods / core value and of each of the PM body of knowledge methods employed around the world.</td>
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<td>1.3 Realising &amp; Summarising the Importance of Context / Front End Factors to Project Success / PM Practice</td>
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<td></td>
<td></td>
<td>1.4 Summary Keys and Methods to Antecedents for PM Practice and Success / Prelim Validation Testing and Planning for Stage 2</td>
</tr>
<tr>
<td></td>
<td>2. Realise &amp; validate a significantly improved methodology for the antecedents / necessary front end &amp; PM through lessons learned from aid / relief projects.</td>
<td>2.1 SSM / Rich Pictures from Post Disaster PM Practice in Real Environment Reflect and Synthesise Key Findings from Field</td>
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<td></td>
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<td>2.2 Peer Review of Key Findings / Validation</td>
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<td></td>
<td></td>
<td>2.3 Summary of Findings, Antecedents, Method Draft / Validation</td>
</tr>
<tr>
<td></td>
<td>3. Provide PM process improvement so that people close to the project can bridge identified gaps in PM practice including, but not limited to, aid / relief projects.</td>
<td>3.1 Provide workable processes to Community of &amp; in practice for implementation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.2 Test / Validate / Update Methods / Methodology / AR / PM process improvement through work in communities of &amp; in practice</td>
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<tr>
<td></td>
<td></td>
<td>3.3 Summarise Findings / AR to PM Methodology – Synthesis, Enduring Models, Synergies and Realisations - Validate</td>
</tr>
</tbody>
</table>
The research, testing and validating of these objective outcomes to outputs and the philosophy, research paradigm to methodology and methods for that can be reviewed in light of the above research aims.

4.5 Philosophy

Whilst action research has the methodology and history to address and work to resolve the understandings and practices needed to be researched in this broad study, it was seen as possibly needing more depth in its philosophical theory knowledge bases and worldview frames. In this, and the value context forward, the philosophy which guides this work needs understanding and respect. In a general sense the philosophy for this work is to realise the value of the objective outcomes listed above. The key aspects of these objectives are to;

- understand project management practice, the various contexts in which it is of value and the antecedents to that application, engage with a range of communities (practical and social) from a wide range of backgrounds and culture, provide situation and process improvement,

- address critical needs in both practice and community,

- provide solutions that can lead a wide range of people in widely differing circumstances to a better way of working for practical and community outcomes.

That is quite some range for our philosophy. This philosophy could be termed ‘reflective beneficial practice’ or ‘practical environmental community science’ or ‘critical praxis’ or ‘project evaluation’, ‘programme management and evaluation’ or even possibly ‘rapid response critically practical management’ or all of these in one set. Whichever range one reviews this in, the keys needing the most understanding are the ability to address context in both a human and environmental sense, the need for a robust, flexible, but ethical, approach and the practical ability to achieve demanding physical and environmental outcomes to suit a range of people and communities in context in demanding circumstances.
A useful overview of the philosophical range of enquiry that could be adopted here is given by the graphic below termed the ‘Research Onion’ in Figure 4.2.

![Research Onion graphic](image)

*Figure 4.2 the Research Onion (Source: © Mark Saunders, Philip Lewis and Adrian Thornhill 2006)*

This is not a thesis in the history of philosophy; there are significantly more qualified people than me to give that background. In simple summary, philosophy has been engaged since and before the early Greek history of Plato and Aristotle down through the ages and in western and eastern cultures to the present day. In western culture the movement from religious to scientific to post modernism and on is well documented through many sources including a plethora of theses. What is not so well documented, addressed or understood is the evolution of eastern and other cultural philosophies, but it is nonetheless relevant to this thesis in its global needs.

The positivist philosophy from the era of physical scientific development is suited to just that – the physical, and where the context can be separated from the matter in research.
That is a reality or possibly a luxury that this thesis cannot work or indulge in. Of its very nature the addressing of antecedents is something that is part physical and part not, is simply not possible. Neither is it appropriate to apply a philosophy that engages deductive (‘top down’) theory led reasoning or enquiry without receiving inductive (‘bottom up’) feedback or abductive (i.e. two way) reasoning. Nor can we possibly isolate our experimentation to a laboratory. We need to be able to draw rich understanding from people and objects in context.

Neither can we be fixed in our context or non empathetic to the people suffering within that through objective distance and unrealised theory. Objectivism is also therefore unlikely to be able to address the range of environments, people, places and cultures that this thesis must do. Case studies would need so many variables that it would just become a logistical and mathematical confusion.

The reality of the environment for this work needs to be contextualised. Though the methods of research that are to enable the understandings need to be part critical but, at the same time, engaging of a breadth of cultures, in many cultures, especially in an eastern one in which a lot of this research is carried out, to be critical within a community or work environment simply is not acceptable.

In this light alone we need to be very careful of the methods of engagement that go with the philosophy in respect of what is acceptable or otherwise in other than a western construct. An aspect of critical reality is needed to open up the dialogue and bring improvement with, in some cases, the possibility of emancipation - it will not work in itself, but with a modifying and pragmatic influence.

At the same time, we do have significant theory and practice not only in project management, but also on the front end to projects and their scoping and wider programme management. That emanates, as previously stated, from three different worldviews, the physical project management world, the community / social science world and the aid world. So we do not need to start from scratch and, in that light, grounded theory, whilst being a possible workable form of engagement here, again will not work in itself.
They do not need any radical philosophies, the challenges in themselves need quite the opposite, they simply need resolution and improvement. This world, unfortunately, has been suffering disasters since the history of humankind on this earth, there is nothing radically new in all that and people need a path to improve on, to get them to better ground with experience and confidence.

For this same reason whilst the interpretative philosophies could engender understanding in their engagement they also need to devolve suitable means to the outcomes outlined above with the most workable and practical frames.

We have already seen the need for mixed methods in the important range of research here. Action research is seen, through both the literature review and general epistemological foundations, as our overall preferred methodology if not our overall paradigm. So what philosophy or range of worldviews best brings the history and potential for understanding and learning here? Could it be as, we draw the line through mixed methods and action research, that we see pragmatism as the logical philosophy to best enable this research? We are aware that pragmatism has a long history with some strong supporters and some the opposite. It is a practical philosophy, and more recently it has been used more in understanding in the context of practical community improvement as outlined in the literature review and its philosophy and paradigm strengthened considerably in that respect.

At the same time, we are aware that we have some fairly rigorous requirements in the mix of what we are researching here. Being a 40 years experienced project manager, I as the author here, am vitally aware that project management in many of the physical projects demands, needs factual treatment in respect of (quantitative) ‘actuals’ for timely, resourceful sustainable completion. So we need to ensure that that reality and traditional PM facts and artefacts are a working part of the practical breadth of the philosophy. At the same time we do need to work more than ever here in the antecedent understanding of the front end of projects in their ongoing rapidly changing environment where the people, politics, context and value based aspects will have significant play also. So our philosophy or paradigm is qualitative and quantitative, deductive, able to deal with ‘hard’ and ‘soft’ issues

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‘Hard (technically focussed) and soft (behavioural) issues are taken into account’ (Anderson et al., 2006; p130).

We also are working within the critical reality of these disasters and that is one of the key factors. Probably most importantly, we are working to identify and realise outcome of value and with respect to people’s values in these demanding environments and in rapid time with practical and agreed resolution. We need a mix of ethics or principles, firmness but with critical and pragmatic outcomes at the same time. This is truly a multi-method research paradigm, but all able to be combined and work within the methodology of action research in its various opportunities. The methods need be both critical and pragmatic and there is indeed a ‘critical reality’ to all this and the need to consider, at the same time, the ‘pragmatic reality’ of these severely resource stretched and often poverty stricken challenges.

There have emerged, in recent times, philosophies developing both pragmatism and critical theory to critical pragmatism and ethical pragmatism, principled pragmatism, pragmatic critical theory and other such frames. How do we guide and see the philosophical aspects of this research and within what terms? As is shown in the ‘research onion’, we do have mixed methods within the overall application of action research and our action research does necessarily cover reflective practitioner research, soft systems methodology and critical and ethical pragmatic action research. All of these have higher ideals than just a want for pragmatic outcomes. This research is to be evaluated and therefore guided by the concept of values. This understanding of the construct of action working together with theory for the good has endured since Aristotle first outlined and worked the concept of praxis (action and theory working beneficially together for benefit to the stakeholders).

So our philosophy is one of the research in reflective practice or technical, practical and emancipator action where the proposed outcomes can be evaluated through ongoing cycles of improvement and learning. There is also a critical need for the methodology to recognize and work with the context of the projects in such a way as to enable the best outcome for the key stakeholders despite significant risks. This
need can, through pragmatic action research, encompass praxis, evaluation, programme and project management, learning and sustainable development.

4.6 Research Paradigm

With what paradigm then does this project research philosophy or world view work? The paradigm is possibly both one of critical reality (harsh reality) and ethical pragmatism. The ontology is one of being and becoming where the reality of ‘truth’ is not eternal, but ever changing and hopefully improving.

“This means that pragmatism has an interest not only for what ‘is’, but also for what it ‘might be’. [...] Pragmatism can be understood as a philosophy that fully acknowledges this mutual permeation of knowledge and action” (Goldkuhl, 2004; p1)

“Pragmatism may be aligned with both critical social theory (CST) and participatory research methodology” (Crist et al., 2009; p121)

We are working within a reality to improve it and in a definable and measurable way, so our epistemology is one of what is and what can be critically improved. This should be done by resolving with whom, what is feasible to improve to and how to do that and understand the knowledge gain in that. An epistemology or theory of knowledge that incorporates the history of the project monitoring and evaluation, physical and community outcomes and the processes within these, including the more positivist project cycles, brought to a working co-operation within an action learning and research cycle (single and double loop learning).

The synergies between action research and project monitoring and evaluation, incorporating the PM BOKs, offer ample working background to this overall epistemology. Within this frame, critical reality and pragmatism can both have a valuable part and together we may resolve the way through this sort of challenge. The paradigm is nominally critical pragmatic action research, but it is the methodology and rigor of action research with reflective practice and the more critically interactive SSM that are the keys to this research thesis. Action research is possibly sufficiently a research paradigm in itself for the extent of this work, given

4.7 Epistemology

Within the context of this research thesis, epistemology or the theory of knowledge and its enablement has quite a broad coverage. As set out previously, a range of worldviews or historical paradigms are brought together necessarily under the heading of the antecedents of project management best practice and in the aid / relief area globally.

There is the epistemology of traditional project management as most widely defined by the PMBOK, the epistemology of project monitoring and evaluation / LogFrame, as evidenced in the literature and practice of that in academic and aid / development worlds, the epistemology of practice and in this case project programme, organisation and community of practice and the epistemology of action research as the most workable meta-frame for this research and its overall outcomes. To start with we need to understand what the role of epistemology may be in this and further project / action research and then how that may be applied, enabled, realised and tested / validated / evaluated.

There are many definitions and views on epistemology from the particular to the general. Let us start with the following

“Epistemology means theories and assumptions about knowledge creation. For the action researcher epistemology is the key to understand possibilities and conditions for creating new knowledge in a world we consider as always unfinished, and in which both researchers and ordinary people simultaneously find themselves in a reified and in an existential relation to the field of practice” (Nielsen and Nielsen)

“The path is built by walking’ (A. Machado quoted by Le Moigne, 1997). In other words, knowledge and action develop together. (Hatchel, 2005)
The question we need to address is how are the epistemologies are best developed and evaluated? A likely starting point for this is from the literature review in respect of previous work in this regard. What becomes clear from that is that the more traditional and western paradigms or epistemologies do not comfortably encompass the range of cultures and practices that this research necessarily should. This is an important and repeating aspect of the breadth of challenge of this research thesis. The worldviews needing to be addressed cover a whole range of cultures and philosophies and, at the same time, we need to deal with practices that are not too critical and all those which may not fit or work effectively in other than traditional western cultures.

“Action researchers often argue that their work is based on ways of knowing that go beyond the orthodox empirical and rational Western epistemology, and which start from a relationship between self and other, through participation and intuition” (see, for example, Belenky et al., 1986; Heron, 1996; Park, 2001; Torbert, 1991). (Reason, 2003; p 7)

At the same time we do need rigour and frame and we do need to be able to resolve conflicting or different views through an agreed process towards understandable ends. The other aspects previously touched upon are the very important ones of context and environment. This research is both a product of, and set within, the environment. It also works through different contexts where both the intended outcomes and the scoping and planning towards them is affected by and affects the feasible outcomes planned within those recognised contexts.

The solutions, therefore, need to recognise context in an understandable and workable way and still proceed to address and resolve the solutions for both knowledge and practical improvement with limited resources within those environments. This therefore clearly cannot be the setting for a traditional western positivist frame. It also challenges greatly the critical reality frame in isolation in the danger of the realities that are seen differently in different cultures, and the problem of context is not one that critical reality may resolve in its possible conflict within certain cultures.
There still needs to be a workable component of critical reality because we do need, in all circumstances, to address the often harsh reality of these environments and what that means to those working or caught in them. To do that our methods need to be collaborative and resolving towards practical realities in rapid time. There is not much luxury of resource or choice in these contexts and the methods to be employed need to enable understanding, communicate and action effectively, through a wide range of cultures and practices, and still achieve a workable and sensible set of outcomes and effective processes to achieve them.

In respect of the knowledge to be gained or lessons to be learned, we need a methodology that will work robustly and with not too much complexity, but one that will enable a process to be both understood and formed through different environments and contexts. Action research is able to address this in overall frame, but may still need a depth of support in philosophical and project practice in the theories of knowledge and the understanding we may draw from this. Hence, we have this focus on the relevant epistemologies to work within and with.

“Dick (1993, para.55), for example, believes action research to be a paradigm which subsumes several established methodologies including: Patton's (1990) approach to evaluation, Checkland's (1981) soft systems analysis, Argyris' (1985) action science, and Kemmis' critical action research (Carr and Kemmis, 1986)”(Larsen and Cottrell, 2006; p5)

Project evaluation or the ‘PME / Logframe paradigm’ does sometimes suffer from a closed system history or approach. (Earle, 2003, Gasper, den Heyer, 2001). This closed system background also can make the PMBOK knowledge base, particularly in respect of tacit learning, somewhat rigid and either inflexible or unresponsive to context, environment and stakeholder engagement in these more testing environments and contexts. Therefore it is likely best to start with the epistemology of pragmatic action research, but at the same time incorporate these other knowledge bases and references for the broadest possible understanding and knowledge enablement.

*Action research is scientific research within the pragmatic position. It corresponds to the pragmatist view of how man produces and justifies knowledge and is backed by
the pragmatist positions with regard to the union of theory and practice and the place of values and ideology in the process of the production of knowledge. Indeed, the pragmatist position maintains that only action research as operationally defined in this essay can truly produce scientific knowledge” (Oquist, 1978; p154)

Whilst we can see the benefit of the pragmatist frame, we also see that with the extensive knowledge capture of the PMBOK and the PME / LFA knowledge bases, we need to address the pragmatic paradigm in a critical and improving frame.

Paul Oquist’s paper on the epistemology of action research, did record some concise and surprisingly unchanged tenets for action research(Oquist, 1978). They are captured in summary below

“Without ends, without the purposive aspect of human behaviour, there is no science, as science is precisely purposive activity

1. Values guide action, and there can be no knowledge without action

2. Value is the purposive element in human behaviour. Science is purposive activity, and thus values are part and parcel of scientific research.

3. Practice is policy and action in the context of determinate structures and processes, both those being acted upon and those that condition the outcomes of actions.

4. The relationship between theory and practice within Pragmatism is produced by experimental practice.

5. It views knowledge as eventual, as an outcome of a given set of operations rather than as something in sufficient existence before the act of knowing (Dewey 1929:164)

6. Pragmatism…implies that problems, values, ideas, action, and the results of action may be conceptualized at the collective or at the individual level

7. Indeed, in Pragmatism any mode of explanation is considered equally valid providing that it produces the desired consequences… i.e. therefore can contain multi or mixed methods which sit alongside action research in the “research onion” (Oquist, 1978; p153)

The other key part of our challenge in this research is that of the knowledge and theory of ‘practice’. In a paper on the epistemology of practice
“Epistemology of practice seeks to explore the tacit processes invoked personally by practitioners as they work through the problems of daily practice.” And “Ultimately, a practice epistemology should be able to target learning outcomes that are specifically practice-based, in other words, that derive from learning within the practice” (Raelin, 2007; p499)

This process works effectively the same way as the pragmatic action research process and that is the targeting of outcomes and learning from practice.

“Calori [3], for example, proposes ‘pragmatic epistemology’ as a methodological framework, involving reflective practitioners and pragmatic researchers who engage together in co-authoring theories and creating knowledge which is immediate, pragmatic and contextualised. The key principles of this methodological approach match the nature of actuality research in project management.” (Cicmil, 2006; p677)

With all of this in form and frame we can then proceed through the action research methodology to process the understanding of the problem, the proposed outcomes and the gaining of knowledge through the reflection and evaluation of the actual outcomes from practice in the actual context and environment within which solutions and people will need to resolve solutions.

The other very valuable synergy which exists here is the obvious parallels between action research and project management or evaluation

“If you consider how experienced project managers solve 'unusual' problems that arise in their projects, you will notice similarities with the processes used in the research projects discussed. Project Managers often make sense of the problem situation through a combination of hard facts, observations and 'selective' communication with stakeholders before they come up with a workable situation. Often, the solution is implemented using a plan-do-check-act process that resembles an action research cycle.” (Sankaran et al., 2009; p120)
Svetlana Cicmil, in her work towards understanding project management practice notes that

“a pragmatic research of projects actuality generates knowledge and builds theories” (Cicmil et al., 2006; p676).

She also outlines a frame for that ‘action in context’ and the outline set out above addresses that and modifies it for the global multicultural context and possible range of set of values.

In terms of evaluating knowledge or value (Senge et al., 1999) the author sets out a workable process for making sense of this. It firstly relates to the objective or goals. Those are defined by the outcomes that will enable the objective and the actions that will deliver those outcomes. He points out that the most effective measures are likely to be relative ones and so to include the ‘soft’ as well as the ‘hard’ measures. We will go into this more in the following chapters and the methodologies and how they may process and work to realise these additions of value.

Suffice to say that the core of these will be the action research / learning cycle with single and double loop learning and working in synergy with the project management similar cycle process as outlined below

4.8 Research Methodology

At its core, action research, as outlined previously, comprises repeating steps through the cycle of reflect, plan, do and review. The context and assumptions of the research are defined and then within that scope, so to speak, the research is refined and worked to resolve outcomes and gain significant knowledge through the extent of that process.

Action research has been seen as meta-research (Dick 2002). In this action research action and research are treated as indissolubly linked. Its spiral is well equipped for this dual purpose, allowing it to address outcomes of both action and research or learning at the same time. This then is a spiral of iteration between action and critical reflection – a review of what has been learned and then how to apply this
learning to the next step. From the critical reflection of action research, as depicted in Figure 4.3, comes the understanding, arising from and leading to action again. A participatory spiral of alternating action and reflection enables action research to pursue informed action and relevant theory in the service of community and organisation development.

Action research has acceptance as a meta-methodology and is seen as having three possible modes in philosophy dating back to Aristotle, those being ‘technical’ or ‘making’ action (poiesis) (Carr, 2006) which involves participants in working towards hard or physical outcomes, ‘practical’ which is made and is based upon the moral and practical judgement (phronesis) of participants in seeking or ‘doing’ action (praxis) and the third type is ‘emancipator’ which is seen as true ‘praxis’ and, in that light, ‘critical’. However this third dimension needs to be used carefully in cultures or communities where emancipation or criticism can be counter-cultural.

Practical action research includes systems methodologies such as SSM. These three, technical, practical and emancipator are well illustrated in overall perspective in table from (Attwater, 1999)

| Table 1. Meta-methodology: paradigms, systems thinking, and action research |
|---------------------------------|-------------------------------|------------------|------------------|
| Social science paradigms        | 'Rational'                    | Substantivist    | Structuralist    |
| (after Harriss, 1982)           |                               |                  |                  |
| Systems thinking                | 'Hard'                        | 'Soft'           | 'Critical'       |
| (after Jackson and Keyes, 1984) |                               |                  |                  |
| Action research                 | Technical                     | Practical        | Emancipatory     |
| (Grundy, 1982)                  |                               |                  |                  |

These parts deserve time and understanding to best enable the value of action research and its possible actions and outcome evaluation as a whole. Praxis is not just reflection upon action in itself, it also involves a commitment to human well being and the search for truth. Praxis requires that those people working through action to outcomes.
'Make a wise and prudent practical judgement about how to act in this situation' (Carr and Kemmis, 1986; p5)

The value of engaging in praxis as distinct from poiesis or technical action is brought out very well in community practice research also (Prilleltensky, 2001, Prilleltensky and Totikidis, 2006). In research showing the effectiveness of the enabling of praxis in community driving programmes (Prilleltensky and Totikidis, 2006) what came through to me was how once this is understood in a project sense how much less external driving is required and, through that, how less detailed and technical project planning is required. This is very relevant to community outcomes, research and practice.

Thus action research, when also understanding and engaging praxis, can more simply and effectively focus on the situation and potentially wise and prudent actions to achieve outcomes of value.

Poiesis can, and still does have, a part in practice at the same time, but in a different use in context. This may be viewed in respect of autopoietic (Koskinen. K, 2009) and homopoietic, or self defining systems (Attwater, 1999). An autopoietic system is self referential so that the components of the system can create or recreate new ones within the same system i.e. the boundaries to the system or scope are not fixed and may move and respond to improve in reaction to the environment and context it is developing within. So the understanding of the context to the situation and its actions to outcomes evaluation is its key gain.

The fixed and closed system view of the ontology or worldviews which are contained in the PM BOK and LFA/PCM frames are now more effectively improved and worked in the light of a more flexible application of the process through poiesis or the technical action which is where these frames were developed in the first place. Then context still needs to be rigorously resolved and the situation analysis carried out in the most effective way. In these cases, autopoietic epistemology can enable knowledge communication as the indirect transfer of knowledge between the
worldviews of individuals through different contexts. Critical and pragmatic paradigms address this.

Action research can achieve it rigor whilst working in the situation. There are several proven ways to achieve rigor or validation in action research, including its cyclic processes and it’s testing of assumptions in action.

4.9 Single and Double Loop Learning

As previously outlined there are a range of cycles applied in action research. They are typically four stage cycles and work in a wide range of environments and under differing philosophies and cultures. As noted earlier, these date back to Aristotle and his theory of praxis and through western and eastern philosophy. Within the last century, the action research cycle is also reflected in quality management (the PDSA - Plan Do Study Act cycle) and is probably best summarized, as previously outlined, as reflect, plan, do and review or reflect, plan, act and observe (Kemmis and McTaggart, 1988). This cycle can be applied over different timelines and be used in connected, but different, timelines within a broader situation. This enables the modelling of the cycles and the research and related projects, conceptually, as cycles within, or working in alignment with, cycles. As illustrated in Figure 4.5, situation analysis is the moment at which the
two cycles of action and research are the same, and which mediates between previous action and future potential.

This realisation has been reflected by modeling of project / research related work in both project management and action research (Zuber-Skeritt and Perry, 2002, Hughes et al., 2004, Attwater, 1999). Checkland, after extensive work in SSM, also developed a 4 stage cycle for simplifying his method and this and similar processes are reflected well in the treatment of the dual imperatives of action research (McKay and Marshall, 2001).

![Figure 4.6 Revised action research framework (source McKay and Marshall 2001)](image)

Included in this treatment is an outline of Checkland’s frame and methodology for research directed to a real world problem or an area of concern (A), working from a theoretical framework (F) which must be declared by the researcher, and a methodology (M) which are used to formulate and guide the intervention (McKay and Marshall, 2001). They also refer to the dual cycle requirements of action research needing both problem solving and research cycles. Action research can achieve a good delineation between the problem solving and the research and they propose that this methodology (M) be extended to have a methodology for the research / what is learned from the intervention as (Mr) well as a methodology for the problem solving part of the intervention (Mps) as illustrated in Figure 4.6
A good frame within which these cycles can be worked within is that from Argyris and Schon in their “Theory in Action” (Argyris and Schon, 1974). The theory in action has three components:

The **situation** in which the action is taking place

The **outcomes** which it is intended to achieve

The **actions** which are expected to achieve these outcomes.

This is captured quite effectively (Dick, 2002, Dick et al., 2009) as shown here in Figure 4.7

![Figure 4.7 the components of a theory of action](source Dick 2002)

The single loop learning is gained from the ongoing reviews of the actions cycles and the double loop learning from the less often but more telling reflections and evaluations of outcomes within the context situation. By understanding and bringing praxis to bear, as outlined previously, wise outcomes or prudent action can also be enacted, evaluated and possibly validated within this relatively simple and workable situation analysis of prudence and wisdom in action.

**4.10 Progressive Evaluation of Outcomes and Actions**


Evaluation theory has been worked mostly with a logical framework which defines objectives goals / impacts by a series of outcomes which are in turn defined by a series of outputs or deliverables. Each output deliverable is then determined by a series of actions. Hence the evaluation of learning in the cycle of praxis can be achieved by monitoring the value of actions to deliverables and evaluating the outcomes achieved by those. The epistemology for this work may be analysed within a possible convergence of action research, project monitoring and evaluation, programme and project management.
Also, and as stated earlier and in reference to Gharajedaghi’s two key concepts in this research, being able to detect a mismatch in planned and actual actions or outcomes (diagnosis) and being able to plan and do actions which avoid the mismatch in the future (prescription) then one has learned. (Gharajedaghi, 1999).

This is very relevant in all project evaluation work and this research, in particular, in that through our methodology, models and practice we constantly review or monitor actions (diagnosis) and the planned vs. actual mismatches that inevitably occur and reflect upon or evaluate the future outcomes (prescription)(Crawford, 2004). This is a fundamental process embedded in project and programme management over many decades now. In other words we can all learn from our mistakes and some markedly better than others – the better the methodology for reviewing and reflecting, monitoring and evaluating, diagnosis and prescription, single and double loop learning and authentic leadership, the better the learning and understanding. We will monitor and evaluate our learning and understanding through each cycle.

This will also be reviewed in the light of the hierarchy of ‘information’, ‘knowledge’ and ‘understanding’ previously referred to (Gharajedaghi. J and Ackoff, 1984, Gharajedaghi, 1999, Gharajedaghi, 2007). The knowledge gained can be either single or double loop learning as previously stated. The knowledge capture and validation needs the best treatment here too. This dual or double loop learning loop aspect of AR is even better illustrated here from in Figure 4.8.

*Figure 4.8. Double-loop and Single-loop learning (adapted from Argyris, 1999).*
This can be expanded upon within the overall methodology that we may work to in this research. If we take in summary terms the analysis of the situation where the action is planned or taking place, the outcomes which they are intended to achieve and the actions which are expected to achieve these outcomes the flow chart / cycle outlined in Figure 4.8. This can reveal the situation analysis leading to the planned outcomes and action to achieve them. The single loop learning occurs when we implement actions and monitor / review the consequences of those actions. The double loop learning (i.e. research) occurs when we evaluate the outcomes of those actions and it leads to a reflection upon the governing variables for those outcomes and the significance of the learning emanating from that.

Within our key to the critical research analysis to follow in Chapter 5 and 6 we will denote the double loop learning research cycle by the double loop with the R symbol as show in Figure 4.9 and each action cycle review as the single loop with the A symbol as shown in Figure 4.10

![Figure 4.9. Single and double loop learning icon cycles and icon](image1)

![Figure 4.10 Single loop leaning action review cycle](image2)
This research process outlined above will be followed through each action step and main evaluation cycle and is very much in alignment with the process through the logical framework analysis (LFA) to address planned outcomes to achieve those.

The LFA also at least offers the start of a method which may be improved upon, but which has significant epistemology in practice around the world and possibly more globally than the PMI methodology. It certainly has extensive application in aid / relief programmes and projects. It also addresses some of the likely antecedents of project management practice in this area and each of our key SSM rich picture partners is also familiar with its application, warts and all. The PMI / PMBOKs do not have this more open front end to projects although, more recently it has attempted to resolve this through adding both programme and portfolio standards applicable for the front end and evaluation of projects. It does suffer from some recognized rigidity and application in the actual transfer through the life cycle of the projects, but these can also be addressed as part of the possible solution and synergising with traditional project management, evaluation theory, SSM and action research.

‘The LogFrame can be traced back to USAID since early 1970s and to classical Greece with Aristotle hierarchical doctrine of “four causes” which are from the bottom: the material, the formal, the efficient and the final (Bell, 2000)’ (Ika et al., 2009; p9).

These four causes are more readily the activities (or inputs), deliverables (or outputs), outcomes and objectives (or goal). This formation has been part used in the framing of the thesis objectives to outcomes earlier in this chapter. The Logframe is typically a four by four table as shown in Figure 4.11;

<table>
<thead>
<tr>
<th>Activity Description</th>
<th>Indicators</th>
<th>Means of Verification (MOVs)</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal/Impact</td>
<td>Indicators</td>
<td>MOVs</td>
<td></td>
</tr>
<tr>
<td>Purpose/Outcome</td>
<td>Indicators</td>
<td>MOVs</td>
<td>Assumptions</td>
</tr>
<tr>
<td>Component Objectives/Intermediate Results</td>
<td>Indicators</td>
<td>MOVs</td>
<td>Assumptions</td>
</tr>
<tr>
<td>Outputs</td>
<td>Indicators</td>
<td>MOVs</td>
<td>Assumptions</td>
</tr>
<tr>
<td>Work program</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Figure 4.11 - Typical Logframe matrix structure (Australian Agency for International Development, 2003)*
4.11 Paradigm of Practice

So there exists quite a body of knowledge and practice which help to frame an effective epistemology and methodology around the convergence of action research (critical and pragmatic), including the theory of action and critical and pragmatic research, programme monitoring and evaluation (including LogFrame and the theory of change) and project management. The paradigm for this research thesis is possibly best captured as that of “project evaluation”.

“If you consider how experienced project managers solve ‘unusual’ problems that arise in their projects, you will notice similarities with the processes used in the research projects discussed. Project Managers often make sense of the problem situation through a combination of hard facts, observations and ‘selective’ communication with stakeholders before they come up with a workable situation. Often, the solution is implemented using a plan-do-check-act process that resembles an action research cycle” (Hughes et al., 2004; p120)

Table 4.3 Action research spiral and project management synergistic cycles (source Hughes et al, 2004)

<table>
<thead>
<tr>
<th>Action research spiral</th>
<th>Project Management Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Thematic concern</td>
<td>• Situation analysis</td>
</tr>
<tr>
<td>• Plan</td>
<td>• Objectives</td>
</tr>
<tr>
<td>• Act and observe</td>
<td>• Action Plan</td>
</tr>
<tr>
<td>• Reflect</td>
<td>• Implementation and monitoring</td>
</tr>
<tr>
<td></td>
<td>• Evaluation</td>
</tr>
</tbody>
</table>

(Hughes et al., 2004).
The key methodology is one of project outcomes to action research where the ongoing process of action and research is enabled by the four stage cycle of evaluation, planning, action and reviewing, in both the regular problem solving or projects cycles and the more significant research cycles where the double loop
learning is evaluated and validated or progressed alternatively. This is reflected in Figure 4.12 (Zuber-Skeritt and Perry, 2002).

However in this and other theses there are more than just the start and the finish of the research for the evaluative research cycle. In this thesis there are three research cycles and these are related to the main outcomes for evaluation set out in section 4.5 on the research objectives.

Therefore our cycle process and key interaction / situation analysis is as shown below.

The action research has two levels –

1. The evaluation of the outcomes in critical and pragmatic review and
2. The ongoing review of action to produce value and resolution to the project action.

The situation analysis or that of the environment and the context is then resolved through different modes for different stages.

"Situation analysis is repeated in each cycle because the situation changes as an outcome of the action that is implemented and because of other forces in the system and its environment." (Hughes et al., 2004)

In this thesis **research cycle 1** is through **literature review and reflective practice**. **Research cycle 2** is through **SSM within again a reflective practice action research paradigm**. **Research cycle 3** is, again, through a **reflective practice action research methodology**, applying the significantly improved model of cycle 2 and applying new methodological and contextual situation analysis understandings.

‘Sometimes the first cycle is an exploration of the situation (a reconnaissance); the second is an attempt to improve or change (intervention), and the third an evaluation of the intervention.’ (Melrose, 2001)

We have taken the first cycle as an exploration of the situation – in the literature, present practices, literature and epistemology. We then have taken the second cycle as the intervention and, combined with this, the validation of the practice and practitioner peer, both in that context and outside of it. Finally we have taken this
work to a different environment and groups to further test, evaluate and realise better theory and understanding.

This process, as worked through in this thesis, can be better understood as further developed as shown in Figure 4.13 with the additional understanding of the value of praxis working through ongoing in the action cycle and the research cycles being reviewed at the conclusion of each outcome.

Here we are working through classical action research, but with the added value of the lessons of evaluation and the core alignments of project management, project evaluation and the critical pragmatic epistemologies. This provides a very strong and consistent recycling, evaluation and validating methodology and rigorous review and critical reflection and research validation.

“The classical action research cycle involves change and learning, organised into iterative phases of action and reflection. Reflection leads to understanding, and understanding shared by participants is fed back into action. [...] The dialectic principle involved is found in Plato’s lectures. In its modern form it is often expressed in the literature as a four-step cycle, involving:

1. planning;
2. implementing (action);
3. observing (evaluating); and
4. overall reflection on the results of steps 1-3, as a basis for re-planning

[...] step four as a so-called “double loop” (Ballantyne, 2004; p325)
The particular methodology for our research methodology including repeating cycles / spirals of action review and research evaluation in this thesis may then be seen by the action research cycle as show in Figure 4.14.

*Figure 4.14 Basic outline of methodology for this action research incorporating outcome evaluation and project action monitoring*
4.12 Research Methodology and Types of Validity

The validation or evaluation of this process then becomes robust, rigorous and very well supported through the action research methodology / paradigm, critical pragmatic paradigm, project evaluation (and linked through that to the PM BOKs) and the project frameworks and their respective and respected epistemologies.

The ontology for these epistemologies is constantly one of reality and truth being consistently improved upon through existing models and methodologies by critical review and reflection in practice and praxis.

There will be several forms of validation ranging from rigorous triangulation of key findings through different sources including, multiple peer review, internal and external sense making and workability in practice. Additionally there will be further validation through the depth of the epistemologies encompassed here, and the evaluation of outcomes which are common to most.

4.13 Understanding and Knowledge

In this thesis we seek knowledge and, through that, understanding. We seek tacit knowledge which is typified by that learned by practitioners in practice and explicit knowledge which is typified by that which can be learned through bodies of knowledge. Understanding is more than knowledge and is best shown as the application of that knowledge, tacit or explicit, and therefore evidencing understanding of the knowledge and its meaning and making sense of it all in context. We will focus on the application of knowledge in practice and its understanding being evidenced in the outcome of the application. This understanding may be evaluated through each research cycle and in context and then in other contexts.
This is more readily monitored through each action on a step by step basis and then the overall understanding by either individual practitioners (myself included), or communities in practice or with practice and value gain (or otherwise), can be critically reviewed. The impact of each outcome on the research objective can be reflected upon and evaluated from research cycle to cycle – both each outcome in itself and the progressive quantum. This enables more rigour also in the processing of knowledge gain and the understanding that is able to be drawn and captured from these.

4.14 Research Model rigour and repeating

‘Repeating the Cycle - Realistic and regular are additional synonyms for rigorous (Roget, Roget, and Roget 1980), and AR is both of these by virtue of its focus on real practices and its cyclic nature’ (Melrose, 2001; p166)

This quote contains part of the insight to the rigour of our methodology, but not the full extent. We take this rigour to another level again because in our critical reflection we also integrate each key planned outcome as part of this cyclical evaluation.

The use of critical reflection in each cycle allows the action (or change or improvement or intervention) to be integrated with research (or building understanding about the process and the practice or evaluating progress or generating theory). (Melrose, 2001; p166)


We do have a progressive growth in understanding, but each cycle will bring keys, greater or less, in themselves. This enables both a comparative and an overall
summation of the impact and validity of the research. Then we can achieve triangulation in more than one form, the first being edits achieved through rigorous peer reviews in outcomes and practice and the rigorous action research methodology already outlined and then in place.

But more rigour can be added by enabling the key validity testing from critical pragmatist paradigm – sense-making, workability and communities in practice and then testing through internal and external validation (Hope and Waterman, 2003b, Shalin, 1992, Kvale, 1995, Larsen and Cottrell, 2006, Johansson and Lindhult, 2008, Crist et al., 2009, Weick, 1988a)

So for each outcome cycle we will also evaluate workability and the sense-making effect on the communities in practice. How do we best and most effectively within the bounds and possible length of this thesis do that?

To enable that we may also see understanding, in the context of this research objective, as tantamount to sense-making. The simple question here is - could people or organisations make sense of the outcomes and confirm understanding sufficient to make sense of the process and implementation or effective actions in practice? So we will progress to evaluate or validate understanding in the context of making sense of actions in practice.

We will do this in an evaluation using a goals, question, metric (GQM) process (Rosenberg, 1996) in a general sense over a range of four evaluations as follows. Now let us work to see the criteria for these assessments.

The first test is that of knowledge and understanding. Has knowledge been obtained and the test of that is – can it be demonstrated in effect? Understanding is a step beyond knowledge as outlined earlier in this thesis. Again we look to see if understanding has been demonstrated i.e. is there an observed effect of that understanding in practice and output or outcome?
Knowledge and understanding to sense-making – *How much did this action lead to better knowledge, understanding and sense-making in the community of practice?*

0  Not effective – no real effect observable
1  General knowledge – basic general knowledge but understanding not demonstrated
2  General understanding – general knowledge and understanding demonstrated
3  Effective understanding - effective understanding (no valid sense-making) demonstrated
4  Effective sense-making - working knowledge, understanding and sense-making
5  Very effective sense–making - Proven understanding and sense-making

The next test is that of workability. Put simply – does it work in practice when applied in context? The test of workability is a test of outcome in practical terms. Were the outcomes achieved in a technical and practical sense? In some circles, that is referred to as evidence based evaluation.

**Practice and workability** – *How much could that action output be effectively applied in practice?*

0  Not effective – not applied in practice
1  Minimally effective – applied but marginally so
2  Marginally effective – generally applied and with general output
3  Generally Effective – effective application with workable output
4  Effective – effective application with very workable output
5  Very effective – very effective application with very effective output

**Community Internal and External Validity** – *How much was understood and workable, internally and externally, in the community(s) of practice in review?*

0  Not effective – not understood or applied
1  Marginally effective – understood and applied but only internally not externally
2  Internally effective – understood and applied, internally but not externally
3  Effective – understood and applied - effective application internally and externally
4  Very Effective – very effective application, workable output – internally and externally
5  Highly effective – highly effective application – internally and externally

**Objective impact** - *What value did this action output / deliver to the impact outcome on the overall objective?*

0  No impact – no objective impact
1  Marginal impact – applied and some output but limited value
2 Reasonable impact – applied and with some impact on objective and output / value
3 Impact and value – effective action output delivering impact value
4 Effective impact value – effective impact on objective with output valued
5 Very effective – very effective objective impact and output value delivered

So through these then we may have an indicative range of tests of outcomes, including – technical, i.e. was the technical product achieved in the field (poiesis), practical i.e. was the practical outcome achieved through purpose and process (praxis) and community in practice i.e. was the community satisfied with the result or impact. So that is very effective triangulation additional to the rigour of ongoing cycles and the dialectical developmental improvement that comes from that triangulation and critical reflection.
4.15 Summary and Model

In summary we have developed a rigorous, robust and relatively straightforward method and model with which to apply practice to research and research to practice in challenging circumstances.

This process may be applied to, and tested, through each of the main research stages or cycles and within each of those critical reflections to evaluate the planned outcomes in respect of technical, practice, and community outcomes. We may then present or replan, for each following research cycle or action cycles, improved understandings and practice towards better method and outcomes with the best impact that can be realised on the overall objective.

Our key criteria for outcome evaluation of this research, as outlined above are;

- understanding by the practitioner or practice participants i.e. sense-making
- the extent to which they were able to be put to work in practice i.e. workability
- the extent to which these outcomes could be taken to different contexts or environments (internal and external validation)
- The extent to which the above, in each research cycle outcome, impacted on the overall objective of the research project.

This enables very focussed action research and project evaluation triangulation acting as dialectical devices not offered through other methods of research (Eden and Huxham, 2006c) which may then, together, powerfully enable the best understanding and practice.
Each outcome is comprised of a series of key action steps or cycles as shown in Figure 4.15 and through each action cycle we can review key criteria building to each of the outcome criteria set out above. These criteria are related but simpler to review in action in the specific context of that cycle and its intended outcome and are:

- Understanding and Sense-making – how much did this action lead to better knowledge, understanding and sense-making in the community of practice?
- Practice and workability – how much could that action be effectively applied in practice?
- Community – how much was understood and workable internally and externally in the community(s) of practice in review?
- Value / impact – what value did this action deliver to the impact outcome on the overall objective?

We can monitor actions and evaluate outcomes progressively through a similar process to a balanced scorecard (Moe et al., 2007) and the previously cited GQM (Rosenberg, 1996). We can evaluate the outcomes in terms of sense-making, workability, internal and external validity and overall impact and align the value base.
for the actions leading to each outcome directly through reviewing the understanding, practice improvement, community take up and value of each action reviewed. This gives very good rigour and leads to a clear from of validation and understanding. This validation is made even more rigorous when we review or monitor actions (diagnosis) and the planned vs. actual mismatches that inevitably occur and reflect upon or evaluate the future outcomes (prescription) as set out in the introduction to this chapter and Section 4.9 - Progressive Evaluation of Outcomes and Actions, Knowledge and Understanding.

The key steps are then to apply this process and view that progress through chapter 5 following and then to evaluate those outcomes in the above way in chapter 6 to clarify the most valuable of our research findings. This is an extending process and it has, and will, draw several different pieces of data from a wide range of case studies and these can be reviewed, critically reflected upon and evaluated towards consistent validation in the best way for this research and its realisable outcomes.
Chapter 5 – Case Studies

“If you can keep your head when all around you are losing theirs and blaming it on you, if you can trust yourself when all doubt you, but make allowance for their doubting too….You can meet with disaster and triumph and treat those two imposters as the same.” Rudyard Kipling

5.1 Introduction

We have summarised the methodology, planning and criteria for both action review and overall outcomes of this research in Chapter 4. We reviewed both the academic literature in much as it has, to date, been applied in the area of aid / relief, projects in general and the ancillary publications and epistemology of a whole range of institutions, government and non government organisations in their understanding of practice and particular applications in this demanding field of aid / relief programmes of projects.

We will do this through each action cycle and then for each stage or research cycle and will reflect upon the summary of those actions for each outcome in terms of workability, sense-making, internal and external validity and the impact of each outcome on the overall research goal or objective.
There were extensive workings in each cycle and in this chapter I will report and review each of these, in order, and to the extent of detail that is both necessary and possible within the content limitations of this thesis.

5.2 Summarise PM Success / Effective Practice and Antecedents

The first phase of this research was to investigate and gain knowledge and understanding of the antecedents to project management best practice. This has two key parts – what is project management best practice or, more likely, effective practice, and how is it defined and how do we understand the antecedents to that working effectively.

A good starting point for this review is in the main literature on these aspects which is actually on critical success factors in either project management, or more generally, project success. As outlined in chapter 3 these factors have been typically separated into project success which is most simply defined as judged by the satisfaction of the key stakeholders, and project management success which is the achievement of the traditional project management methods i.e. on time, cost, quality and even more so as defined by the PMBOK methods and measures.

This can then be evaluated by how success is judged (success criteria), and the factors that contribute to the success of projects (success factors). The overall process here is to look at the information, data or knowledge received through each action step and then to reflect upon each research cycle outcome, achieved or not, through the sum of those steps.

5.2.1 Summary Success Factors - Projects and Aid In Particular

These project success factors are developed in the light of the literature and other information available and then, in this case, in a forward view of reflective practice. This reflective practice has two general parts – particular reflective practice and a community of practice.
This literature and other information, together with the reflective practice and process review, formed the framework of ideas for the formative and preparatory stage of this research project. Firstly, though, we need to look at the situation analysis defined as the understanding of project management best, or at least effective, practice and the necessary antecedents to that. The literature has been reviewed quite extensively in Chapter 3, but it is also necessary as a review to background the reflective practice and related informal action research formalised here, because it also provides a model to the epistemology and practice of this research project.

The literature review outlined in Chapter 3, gives background to the understanding and development of summative project success factors and the arrival at the two key categories for these in light of both this and previous research. These success factors are not to be confused with the success criteria, which is that criteria of objectives judged to be successful by the key stakeholders to the project.

It was not expected that the first outcomes and evaluation would bring closure or strong validation as it is, in reality, the summative background for the considerably more formative second and third research cycles.

5.2.1.1 Reflective Practice

As referenced in Chapter 3, whilst there is not an abundance of literature on self reflective practice, there is relevant reference on reflective practice research and a sensible starting point in this respect is (Crawford et al., 2006, Gerber). They note that in particular we should resolve

“How tacit project management knowledge is best developed and transferred and how we can leverage the "greybeards” before we lose them” (Crawford et al., 2006; p731).

Being a 60 year old practitioner, I likely fit that category and herein work to realise the best process for that as part of this thesis. They also look for

“A research project to that of facilitating a learning process involving the critical examination of real-world experience, relevant theory, and ongoing interaction” (Crawford et al., 2006; p729)
That is what we are doing in this research. Probably the most valuable literature in this respect is that addressing the collaboration of academics and practitioners in project management research (Walker et al., 2008c) previously referred to in Chapter 3. They look for rigorous reflective practice including dual cycle reflection (which is what has been engaged within this thesis research) as well as single cycle problem solving and learning. The situation analysis method applied here is that arrived at in Chapter 4 and best summarised below.

To resolve the relevant success factors in project management practice, in this instance, it is best to start to understand the reflective practice research in line with the literature that is available. It is also necessary to bring method to the best way forward, in the combination of this reflective practice with the success factors clarifying as much as possible or necessary for the next evaluative cycle of this research thesis.

The practice review in the first cycle of this research is of PSA Project Management Pty Ltd, the practice which I founded and am principal of and the project practices those engaged on some of the most demanding projects in Australia. These were, at the same time, judged successful by the key stakeholders to those projects. Some of these projects received State and National Project Management Awards so they were additionally judged successful by project management peers and industry. Additional to that, the principal of this practice also served as President of the Australian Institute of Project Management and served on Post Graduate and Graduate leadership committees for education, training and mentoring in project management, as well as lecturing in those courses and programmes. An insight into the background and validation of all of this is referenced in Appendix 1 of this thesis.

Additionally and usefully, this practice also published reflective action research at formative times in the development and one of these papers, whilst not academically referenced, arrived at outputs on project success factors, again emanating from both action research and literature review in 1997 (see Appendix 2...
As outlined in section 3.8 - Leadership earlier, what was also drawn out in that was the need for a sustainable project management style that enables leaders to develop leadership, delegation and shared goals. More important and recent work, previously referenced (Toor and Ofori, 2008, Ives, 2005, Lloyd-Walker and Walker, 2010) see authentic leadership and its possible embedding in the programme to project process and expectations as key also.

That work, and it’s understanding of the both the tacit practical, and the research literature, has been constantly updated formally within this practice since that time and has helped form the path to this research.

The background and workup to that work came from records, files and journals kept over that time and spreadsheets grown from that reference and other reviews. More recently, leading up to and through this research, an evaluative review of a wide range of projects undertaken through this practice, was carried out, including aid / relief projects in Australia and Asia. The value of these projects in total is in the order of Aus$5 billion and the timeline of these dates back to 1975 and three years on the reconstruction of Darwin after Cyclone Tracy devastated that northern most Australian city.

The process of this reflective practice and these findings, in particular, evolved firstly from my journal. Then, working from the literature review of critical success factors and criteria for these projects, and work done prior to starting this thesis referred to above, 20 possible success factors for each project were cross checked and tabulated. Those factors applied, or were tested towards success, on each project or programme in that time. All of this was then progressed to a spreadsheet to better detail and analyse each project or programme and the relevant factors. From this work the key success factors were extracted in a summative form and this summary was then reviewed in light of the literature and other information review, with respect to referenced categories including external and internal, project, plan, monitor and evaluate. These categories will be seen in a more formative light further into this Chapter.
The reflective process is that used in my practice in essence for 25 years now. It is the same core process as that set out in the chapters leading to this action research in practice and that is plan, do, review and reflect. As previously stated this professional practice has enabled the successful completion of many of the most demanding of projects in Australasia and they we all carried out through these effective, but robust, project cycles.

![Figure 5.1 Historical Methodology and Project Cycles for PSA Project management](image)

The methodology for this practice is contained within in-house manuals with an interesting dual cycle process as shown in Figure 5.1 (see Appendix 3 for example excerpts from lager Project Management Methodology Training Manual copy).

In the management review, knowledge was gained and captured over 20 years on over 100 projects in total value over Aus$5 billion. This process outlined and enacted
has both the overall objective and learning cycle and also the project / problem solving cycle referred to earlier. The project or problem solving cycle is also captured in those PM training notes and is illustrated below in Figure 5.2. Some academic criticism is levelled at the action or problem solving cycles in action research. The importance of problem solving to project management and the regular action cycles may, in these criticisms, be underestimated or the critics may just be lacking in sufficient understanding in practice to realise the vital importance of problem solving to projects, project management, stakeholder and project team confidence as a path to planning, doing and learning by both. Without this regular process cycle shown below, it is reflected that no project may really be successful in practice and research would be the poorer for it as well.

![The Project Control Cycle](image)

You will notice this is very similar to the old quality process Plan – Do – Check – Act.

This project (control) cycle obviously involves a lot more details and regular review than can be shown in the above diagram.

**Project Example**

To give practical insight to the set out and detail of the schedule implementation processes that are the project (control) cycle above we will draw from a real projects time planning implementation and control. Here we draw from the experience of the very successful MCG Great Southern Stand Project. This was a $150 million Project completed on schedule and budget and is the heart of sport in Melbourne. It is commonly referred to as the “Peoples Ground”. The implementation in time comes from the Gantt Chart shown on the next page. This is an example of a schedule item from the first box (Plan Project) of the project cycle.

*Figure 5.2 Excerpt from standard project cycle - PSA Project Management Learning Module*
The above project methodology was effectively practised for an extensive and broad range of projects (see range in Appendix 1) which were completed successfully to the project management measures of their times in terms of on cost, time, quality and to the satisfaction of their key stakeholders. Further, this professional practice also published online, and for a series of educational institutions, the project methodology and support systems for these projects and their understanding and knowledge capture. These can be viewed at www.psaproject.com.au and some of the methodologies and processes are evidenced in Appendix 4.

However, and most notably, these project methodologies, as typical of the traditional PM BOK type knowledge bases of the time, did not understandably address the antecedents to PM practice or really effective stakeholder management. It is interesting that the author can see that so clearly now, with the benefit of hindsight. However, I was not that different really to the vast majority of project management practitioners who were not sufficiently exposed to, or educated, in this particular understanding. We were typical of our time and the methods we worked through and gained confidence in. But it is now so obvious, and consequently important, that these gaps are realised, addressed and resolved, and for so many reasons.

The research information then needed to extend beyond the traditional PM base. But in order to lead into the bigger view, we first needed to realise what was key in the history of projects to date in this light.

Through this process outlined, including both the literature review outlined in Chapter 3 and the above reflective practice view, a general, but not final, summary of project success factors, prior to the antecedent realisations, was resolved as follows;

1. A clear mission/vision and agreed goals with agreed success criteria and clear understanding of desired and expected values driving the project culture;
2. Key stakeholder/key resource understanding of the goals/objectives with a clear and agreed statement of outcomes defined;
3. Project plan and programme/method of work being resolved and agreed by all key parties, including provision of adequate reserves and contingencies;
4. The feasibility of that plan (in terms of resources, contingencies, risks and outcomes) being resolved and signed off by all key players;
5. Adequate resources being committed for the project based upon detail derived from an achievable project plan;
6. Clearly stated and understood PM capacity, experience and staff/senior manager's support including project governance, dispute resolution procedures to engender trust behaviours;
7. Adequate communication and project tools;
8. Project competencies and PM skills, adequate and agreed organisation structure; and
9. Integrity, effective communication, commitment, support, team approach, mentoring, and learning.
10. External Influences such as political or cultural awareness and capability. (Steinfort and Walker, 2007, Steinfort and Walker, 2008)
The resolving of these success factors developing from these project epistemologies and the literature review were summarised and reviewed in the context of macro and micro views of project success as shown in Figure 5.3.

Aspects such as leadership, support, trust and integrity also touch on the emotional intelligence and authentic leadership aspects referred to earlier. The point here is that this cycle and process is not just a technical need. It is as much a human approach and the more intangible aspects not previously given much treatment in project management come into more focus when we start to address the antecedents.
Then, through further cycles of resolution and this better segregation, the summary model, arrived at is shown in Figure 5.4.

This overall summary, supported by the more widely researched practice success factors, was a valuable development leading into the overall research information and understanding for stage 2 or the second, possibly most important, research cycle. All of the above was not conclusive in itself, but it was quite formative in how it started to model the factors into key categories that would get much better communication and resolution as the research progressed to, and in, the ‘field’. Interestingly, and possibly not surprisingly, the summary developed into a cycle like that of action research as shown and written about previously in all Chapters.

These outputs of these action cycles in this research cycle are not an end in themselves, but then form the model for the more focussed, reflective practice research of this first research cycle and the three actions that proceed with this, as outlined in the model in Figure 4.13 in Chapter 4. From these we then enact problem solving or action cycles leading to the overall outcome evaluation or research cycle, before progressing to the SSM engagement in the real disaster environment in post tsunami Aceh and beyond.

The methodology (M) for review and reflection of this and other work for this thesis remained effectively that of plan, do, review and reflect / evaluate on an ongoing
cyclic basis. So in fact this research process and cycles have been developed for nearly 40 years now in all of the different worldview practices in core, and in my / the author’s own practice on billions of dollars worth of projects. That proved to be a reliable and sound base to both start from and develop through. Bear in mind that a lot of this work on aid / relief projects is carried out in places and environments where there are not a lot of, if any, qualified project managers and where resource and detailed project management understanding is indeed very thin on the ground. In this work we always needed to ensure that it was both understandable at a field planning and implementation level, but then in workable alignment and synergy with traditional project management and evaluation processes.

This core action and project cycle was to prove essential to this work and our understanding both in the antecedent or front end factors and in the workability of project management overall.

We will now review the first action cycle in respect of the key criteria (understanding, practice, community and value) we established in our methodology in Chapter 4.

**Summary Critical success Factors for all range of Projects – Action Cycle Review**

**Understanding** - The first action or deliverable for this first cycle review is the realisation of the range of key success factors for projects and the need for differentiation between project success factors and project management success factors and further to this the need to segregate the factors into – macro / micro, internal / external or technical / social. This first activity, however, did bring a better than previously found understanding of key success factors and also clarity, to the difference between project success factors and project success criteria and each of their likely best structuring within an overall research model. **Rating 3**

**Practice** - In review this first action step realised a much better understanding of the importance of antecedents to project management success in general. It also
brought a very workable categorisation to the overall model for research and critical reflection. It helped develop a frame for the important second phase research, but mostly it brought to a much clearer light that project management in its traditional use, including mine and others, needed much better understanding of its necessary antecedents.

It was important to practice, but at the same time it was surprising to realise how much the importance of the antecedents had been underestimated or just not taken into account in traditional project management. Also it was realised how much the front end and LogFrame methods, in particular, did not effectively integrate into project management in practice. Rating 1

Community - Several papers were presented to conferences and published, through this research work, but it was becoming obvious that there was a gap in the effective practical understanding and research of the interface between antecedents and project management i.e. it had not been effectively addressed or understood in community in general anywhere to be found at that time. Rating 1

Value to Outcome – it was of limited value in isolation but, in time, would prove valuable in support of better understanding overall. Rating 1

<table>
<thead>
<tr>
<th>Knowledge Understanding</th>
<th>Practice Workability</th>
<th>Community Internal / External Valid</th>
<th>Outcome</th>
</tr>
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<tbody>
<tr>
<td>Sense-making</td>
<td>1- Marginally effective</td>
<td>1 – Internally effective</td>
<td>1 – Marginal</td>
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5.2.2. Understanding and synthesising the methods / core value of PM

Our second action working towards our first outcome involves all three types of technical, practice and emancipator methods. The technical position has traditionally been taken most typically by the PMBOK, the practice by that and other BOKs which
relate to project management practice around the world and the emancipatory by the Project Monitoring and Evaluation / Logframe / Project Cycle Management (PCM) and Theory of Change methods.

Chapter 3 reviewed the literature on the various methods around the world and further review reveals that these methods do have core synergies. The BOKs, and particularly the PMBOKs, focus mostly on the project management technical aspects, but in their basic life cycle frame (see PMBOK lifecycle in Figure 5.5) have similar steps to the P.M.&E / LFA and Theory of Change models in that each has the steps of initiation, planning, implementing and closure or evaluating, with controlling running throughout the process.

The P.M.&E / LFA focuses in significantly more detail at the front end initiation stage and, at the same time, the emancipator aspects of justice and improvement. The PMBOK has no real purpose when it comes to values (other than technical input and output system type values) and certainly has no concept of praxis or justice in its processes. It does however, have strong emphasis on achieving project management control whereas the P.M.&E / LFA can be challenged in that aspect and particularly in

The resilience of transferring the LogFrame project definition to working projects within tight time and cost constraints and controls.
The PMBOK in itself does not work on programmes addressing projects or collections thereof, whereas some of the other BOK’s and methodologies, of more European origin, such as Prince 2 do approach projects from a more holistic or strategic programme point of view.

All of these methodologies or Boks do, however, work to some basic life cycle steps which are possibly best summarised in the Project Cycle Management (PCM) process which has typically evolved from the Logframe / LFA “school”. The PCM “school” does have 4 basic phases in the life cycle management in each instanced cycle and they are as shown here in Figure 5.6.

The Logframe best working example is seen below. It is typically in Table 5.1 below as a 4 by 4 table with the objective being defined by a set of outcomes. Each outcome will have a set of outputs or deliverables with a sequence of activities to achieve those.
Each level will be determined to work within certain constraints, assumptions and performance indicators and means of validation for those. It is worthwhile noting that the goal / objective and the outcomes are subject to evaluation whereas the outputs and activities / inputs are subject to monitor.

This different treatment is the same as that for single and double loop learning referred to in previous chapters. In the single loop review actions are reviewed and their progress monitored, in the double loop learning or research cycle outcomes are evaluated. These outcome evaluations being double loop learning and the outputs of

<table>
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<th>Table 5.1 – Traditional Logframe</th>
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<tbody>
<tr>
<td><strong>PROJECT SUMMARY</strong></td>
</tr>
<tr>
<td>GOAL / OBJECTIVE The higher overall goal to which this project (together with other programmes) will contribute.</td>
</tr>
<tr>
<td>PROJECT OUTCOMES The specific impact of the project: (The intended/assumed effect of the project outputs).</td>
</tr>
<tr>
<td>PROJECT OUTPUTS The project intervention: The outputs and deliverables that the project (team) is accountable for.</td>
</tr>
<tr>
<td>PROJECT ACTIVITIES / INPUTS - The specific activities that have to be carried out in order to accomplish each respective project output.</td>
</tr>
</tbody>
</table>
activities being monitored to single loop learning are fundamental aspects that enable significant synthesis throughout this thesis and offer great potential for understanding further project research.

The ‘LogFrame’ works within the frame of project action and outcome evaluation to improve situations, as depicted in more a local community illustration from an aid group below in figure 5.7

![Diagram](Figure 5.7 Excerpt from International fund for Agricultural Development Depiction Showing Work of Logframe in their Project Cycle)

The key items in these logical frameworks are the goals / objectives, outcomes, outputs and activities.

These are best outlined in definition and use as below;
Goals are *future based statements* of aim or *objectives*. Goals are achieved by a set of outcomes. *Outcomes* are “*end results*” and therefore *finite statements*. 

*Outcomes* are realised by a set of actions or outputs. *Outputs* are “*deliverables*”, action which produces *value*, which when delivered together through a *programme* of projects to achieve an *outcome* which can be *evaluated* through their sum.

This combination of outcomes as end results with the outputs of activities delivering value in a normal project sense defines scope and value in the most connected and effective way.

Outcomes are defined by the value of their actions / deliverables. This is a fundamental understanding, that outcomes are dependent on the realisation of value through the delivery of outputs actions. Within the project monitoring and evaluation ‘epistemology’ of practice or methodology, projects deliver the components of value to programmes through plans of action or project plans.

Outcomes or programmes are evaluated in the double learning loop or cycle and quite often people see programmes or outcomes delivering value, but it is important to realise that projects or actions, when effectively planned, actually are the building blocks to value – each deliverable or set of actions or even projects is/are actually the real mechanism by which value is added to the overall goals, objectives, vision, thesis, mission or even philosophy.

There is also a rigorous validation in both theory and action enabled by these combinations which may be best summarised as follows:

A goal or objective is a set of outcomes (end results / benefits). Each outcome is realised by an agreed set of actions or projects which are planned to deliver outputs, each of discernable value, the sum of which equates or adds to the value of the outcomes. It is therefore wise from the outset to question if all of the outputs, projects or actions would deliver the

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*Figure 5.8 The most understandable widely used project / action cycle*
outcome defined and if the value add of that is agreed by the key stakeholders.

Through various iterations we worked through the following processes to arrive at the most workable synergy. As previously noted there is a clear synergy in the methods of research to action cycles in action research and programme to project management cycles. The simplest starting point is the objective to plan, do and review cycle which works to resolve both action research and project to programme management universally as shown earlier in this thesis. This first and most simple cycle, illustrated in Figure 5.8, has the benefit of being understandable to almost anyone in research, the field or practice in general and anywhere in the world, no matter what level.

This ‘objective people plan, do and review’ cycle may then take on different uses and interpretations in a wide variety of practical project and research paradigms, again universally. It can be applied, understandably, in almost any culture or place on earth. It has roots in the early work of philosophy over millennia and has found its way into almost any group effort and theory or action for outcomes and value. The programme to project development, which we have reviewed briefly to date, and will look at more extensively in both practice and theory forward, forms a working epistemology of type in a generic method to be applied depending on the context, which is defined by the situation analysis we have reviewed in principle to date.

What we will do in this chapter, is review this dual cycle in both action research and programme to project management through three main outcome evaluations (reflective practice, soft systems methodology and validation) and draw from that both significant research realisations and effective practice through the dual learning cycles enabled by this synthesis. We will do this through working examples from real world events and actual implementation in the field and these will enable better understanding than would otherwise be gained in either theory or practice where one has predominance over the other.

**Understanding and synthesising the PM methods**
This second activity delivered significant benefit in respect of realising the extensive potential of the LFA / PCM / PM&E aid programme development methods, particularly at the ‘front end”, or potentially antecedent aspect, of projects or programmes. At the same time it also became apparent that the project management side of the methods were not as successful in the LFA / PCM / PM&E as the PM BOK commercial / construction methods. What was apparent was the potential for the combination of these two methods / core working value to be valuable to both worlds. The potential of these two worldviews to be synergised to the significant benefit of this particular research thesis was also evident.

**Understanding** – Valuable in terms of realising the potential of the synergising of these key methodologies from different backgrounds - *Rating 3*

**Practice** – this gave good insight to the differing solutions and their possible value in combination, but it was both potentially prejudicial and premature to work to resolve at this early stage - *Rating 2*

**Community** - little interest still shown at this stage - *Rating 1*

**Value** – generally insignificant at this stage *Rating 1*

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<thead>
<tr>
<th>Knowledge Understanding</th>
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<th>Community Internal / External Valid</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 – Effective understanding</td>
<td>2 – Generally effective</td>
<td>1 – Internally effective</td>
<td>1 - Marginal</td>
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5.2.3 Realising & Summarising a Model of Context / Front End Factors

The methodology then within action research and its repeating cycles and the potential for linked action cycles within research cycles as discussed above then. In this respect the framework (F) as outlined in Fig. 5.9 (Prilleltensky and Totikidis, 2006) sees the key considerations as philosophical, contextual, needs and pragmatic
with the aligned questions of what should be (or why)?, what is?, what needs be (and who)? and what can be done (or how and possibly when)?

The other aspect which starts to emerge more clearly here also is that of the human and social concerns of these context led questions. We are touching in matters of

![Considerations for a Praxis Framework in Community Psychology](image)

*Figure 5.9 The Questions of Praxis in Community (source Prilleltensky, I. & Totikidis, V. (2006)*

empathy and feeling and thinking of and for others, and also calling on less tangible issues such as trust, commitment and potentially authentic leadership.

These questions also align quite well with Checkland’s What to do (P); How to do it (Q); and Why do it (R)? (Checkland, 1999, p. A23f.)

The situation analysis gets evaluated in each major round through reviewing the area of concern (A) and then and using the contextual analysis (F?) outlined in section 4.8, of What? Why? Who? (What to do (P); How to do it (Q); and Why do it (R)? (Bergvall-Kåreborn, 2002)

The questions of context we can devolve from these in the ‘situation analysis’ are:

**What** is the situation – the actual state - real environment / risks? **Why** do it? (The philosophy / vision / key needs criteria driving it – what is considered of value) and
therefore what should or could be? **Who** - are the key stakeholders and what are their needs?

The stakeholder analysis is very much underdone both in an integrated and effective process or even methodology, epistemology and philosophy for it, and is much undervalued in traditional project management bodies of knowledge such as the PMBOK. The PCM / Logframe and Project Evaluation epistemologies do have much better treatment of this, yet there is still resolution needed to see what is the most effective stakeholder engagement, overall, to project outcome value add. Again, when one considers the now generally accepted definition of project success as that of stakeholder satisfaction then this is seen as essential and it remains hard to see why it has received limited focus in recent updates of the PMBOK and similar works.

This then begs the dual purpose questions not only for the methodology in development here, but for the overall treat - What is missing and what is required?

**How** - to plan the outcomes that will feasibly meet their needs. (Evaluation of outcomes to action plan) – Pragmatic – what can be done? As show in Figure 5.9.

Bearing in mind that the most commonly arrived at definition of project success is that of stakeholder satisfaction then is it important that the reflection of satisfaction is enabled in the method for context or situation analysis.

The key question of who also necessitates the definition of success criteria or value outcomes as scoped and agreed by the key stakeholders, and therefore their values in a community or cultural sense. This aspect will be visited mostly in the second phase of the research cycle, in post tsunami Aceh / Indonesia and further again following the Victorian bushfires and generally.

The interesting question here is how does one resolve value in differing communities and thence enable the effective ‘evaluation’ of outcomes towards a common objective? The context to these objectives is the key, as is the understanding of the values of the groups that may be working to realise practical outcomes in those
perspectives of value. It is hard to see how any of these methods previously cited can actually arrive at agreed outcomes without the question of whom?

The overall methodology that can then be applied through the following chapters is that shown in Figure 5.10 here, and also brought out and clarified in Chapter 4. This may be shown in cycle or simplified graphic form where the key steps are to set the parameters for the thesis, its objective and then the questions that may be applied to resolve the situation analysis towards the planned outcomes and the actions to achieve those.

![Figure 5.10 Overall Research Methodology](image)

The action research questions that may be applied are typically “What to do, how, why” (Maqsood, 2006), however, given the importance of the stakeholder engagement process to project success, and as key within the programme antecedents in more traditional use those, questions may be better framed as “What, Why, Who and How” as reviewed in both Chapter 2 on context and Chapter 3 on the literature review previously referred to. These key questions may, in summary and initially, at least, frame the following context for this research as an example, but also can be applied to any project or programme research or otherwise.

Situation analysis of this research is as follows:

**What** is - the Reality, the Literature and the Practice?

**Why** do this – the Philosophy and Value Criteria which may be applied?

**Who** – are the key stakeholders and with what critical needs?
How to achieve the Outcomes needed to address these questions and the actions to achieve those pragmatic considerations. This can also be shown as in figure 5.11.

We will be faced with the same challenge in this thesis in respect of the question of the how to realise or capture the value of the knowledge gain through a working method of action research (regardless of whether it is pragmatic, critical, positivist, interpretive or any combination thereof or beyond).

Realising & Summarising the Importance of Context / Front End Factors to Project Success / PM Practice

The realising of the importance of situation analysis, proved significant value in that the context / front end factors were the key to project management success. Whilst there had not been significant work implemented effectively in the combination of antecedents to / context for / front end factors to project success / pm practice in the aid / relief or indeed the general project management worlds, there were to be found methods which could at least form a worldview, method and understanding of these antecedents.

The most generally used and applicable context methodology was that of action research where it had been applied in its various forms including, but certainly not limited to, the proposed method for stage two of this research, soft systems methodology. The most apparent value here also was the synergy and possible working synthesis of programme to project management, LFA / PME / PCM and
action research with context setting questions to prompt any user to better understanding of antecedent factors.

**Understanding** – this started to unfold the understanding necessary to take these matters to the next research phase, but they were not sufficient in themselves to have any great impact at this stage - **Rating 3**

**Practice** – this was not able to be put into practice at this stage because it was too fragmented and had gained little overall cohesive practice but gained a better understanding of the potential in practice – **Rating 2**

**Community** - little interest still shown at this stage - **Rating 1**

**Value** – little effective impact at this stage - **Rating 1**

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5.2.4 **Summary Keys and Methods to Antecedents and PM Practice and Success - SSM**

There are, of course, many methods in practice in respect of valuing sustainable outcomes to objectives and different ways to resolve that. It is interesting, in this respect, that these do not seem to be well referenced or used in the academic literature and this begs the question of the practical understanding of the academic community of accepted working accepted models in industry. Rather than enter any debate, in this respect, it may be more effective to simply cite from practical example how this may be, and has been, done in practice.

The process of evaluation has, of necessity, had a very long and rigorous history in both civil engineering and project management. Possibly one of the most tested of
these is the tendering and award of contracts for projects that carry both qualitative and quantitative requirements. In these instances the objectives to the tender are set out clearly and in a way that can be valued. These values are, to some extent monetary, and otherwise qualitative, but needing quantitative assessment in resolution before tendering and award. They need good and supportable rigour, because they are highly sought after projects and those who do not win the contract are not necessarily accepting of that and often will question, either through Freedom of Information (FoI) legislation or through other means, the outcomes that did not go their way.

Therefore the project manager needs to prepare the assessment in a supportable and provable way. This assessment essentially requires the listing of a set of criteria for the evaluation of the process. That criteria is, in the first instance, textual and contextual, relating to the overall objectives of the project. It then relates to targeted outcomes of the project and their deliverables (which have numerical value assigned to them in a weighting of the overall outcomes and objectives – whether they be ‘hard’ or ‘soft’ values).

This evaluation process has been in practice for decades and it may be a relatively simple process to transition it to this action research / programme evaluation. We did, in fact, do that in post cyclone Darwin / Australia, post tsunami Aceh / Indonesia and post bushfire Victoria / Australia and it worked each time and was commended by those working it for agreed and valued outcomes (see references Appendix 1).

The work outlined in the previous paragraphs was developed over decades and is both a creative value process, and also an evolving improvement synthesis. In that light it is best that we address the need in this thesis in like manner. We start from ‘fuzzy’ objectives. Whilst Checkland’s SSM is acknowledged as developing workable understanding of ‘fuzzy’ or ‘messy’ or even ‘wicked’ situations, it may not best address the evolving aspect of value which is important in the validation of this work. To use a timely reference in this respect may I take the liberty of quoting longer than normal;
“It [the pragmatic logic stipulates that judgment is “in” this world as much as it is “about” it, that “the proposition is itself a factor in the completion of the situation” (Dewey 1916b, p. 338), [...] the latter [the quest for practical certainty] requires pragmatic inquiry and presumes that “both idea and ‘facts’ are flexible, and verification is the process of mutual adjustment, of organic interaction (Dewey, [1890] 1969, p. 87). The quest for pragmatic certainty sensitizes the knower to fuzzy things, multiple realities, semichaotic systems, and it favours participant-observation as a practical way to fathom objective uncertainty” (Shalin, 1992; p261).

In respect of the above, the value of SSM in this research was recognised as crucial from the outset, not only in its capacity to address the messy situations that are endemic in post disaster project management, and any antecedent analysis for that matter, but also in its capability to provide method and rigour to clarify understanding, method and application. However, SSM is not that simple to use for the needed outcomes and value realisation of this thesis and its granted work, and that use or need is in reflection throughout this research.

The issue of leadership is also in review here as it is often seen as necessary to the collaborative resolution of planning and achievement of value based outcomes. In this respect the consideration of the base of the context through which leadership is enacted is also relevant and, whilst SSM helps realise this process, the point of values of leadership can also enabled by open and alternative methodologies.(Kriger and Seng, 2005).

With respect to the evaluation of project outcomes there are, as previously cited, several epistemologies or methodologies which have addressed value and its various criteria and treatment in a practical and social sense and these mostly come again from the LFA / PCM / Project Monitoring and Evaluation world view in practice. Again, these enabling methods are not extensively written about or understood and neither, day we say, is there much evidence of any great effort or purpose by main stream project management academia to understand them. Nonetheless that does not necessarily detract from their capability when engaged effectively. The methodology (or is that becoming epistemology? It is sometimes hard to see the difference, depending on the context) which we are engaging in this research is
aligned, especially in the context and antecedent process, with that P.M. & E. Methodology.

The evaluation of both hard and soft criteria in this P.M. & E. process and the meta-research methodology working here is one that will enable the best outcomes in that respect. The key to that enablement is in the working process of the project actions or outputs delivering value to the outcomes, and those outcomes being defined by those deliverable or actions. Outcomes are value based – based on project outputs. So the evaluation that is enacted at each research or programme cycle is dependent on the project management of the deliverables. One cannot exist without the other, they are interdependent and also antecedent. This seems to be a surprisingly ignored treatment. The interdependence of research on action, action on research, programme on projects and projects on programmes may be the greatest unrealised antecedent of all – but that will be reflected upon in the following pages.

**Summary Keys and Methods to Antecedents for PM Practice and Success / Prelim**

Whilst it had not become apparent or settled which methods or combination of methods would best work for the combination of antecedents to project management success, it was seen that there are quite a selection of methods. It was also seen that we did not have sufficient validation base or understanding at this point of the research to resolve best combinations or individual choices, given the more focussed data from the aid / relief project / programme world in the field and from those practitioners who really had worked them through and could contribute significantly in that respect. It was also reinforced that SSM would be the best method to proceed within the next stage of this research project.

**Understanding** – This started to unfold and resolve the possible framework to take to the next research phase, but was not sufficient in itself to have any great impact at this stage - **Rating 3**

**Practice** – this was not able to be put into practice at this stage – **Rating 2**
Community - little interest still shown at this stage – Rating 1

Value – little effective impact at this stage – Rating 1

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In this first research cycle there are four actions which are to form the evaluation of the outcome we are reviewing.

5.2.5 Summarise project management success / best practice and their antecedents in general

The primary value of the first stage was through the framing of the point of views, worldviews, methodologies, synergies to actually set the scope for the stage 2 interventions.

The methodologies and methods were not resolved sufficiently in themselves to be of value immediately for understanding in practice and neither was there found anything in present combination that could be used to address the antecedents to project management best practice in general. This was quite an outcome in itself for it was initially expected that this research or working may have already been addressed.

There was however, the realisation that an existing useable / workable epistemology for project management success / best practice was the PMBOK and the epistemology for project success was the project evaluation / PCM to LFA. It was also seen that the best frame in which to view these together was the methodology /
The epistemology of action research and within that meta-frame, SSM, for the robust engagement in the post disaster to be undertaken

Through work that may be appendixed, given the space available, the summary models that were developed are best summarised below.

The development and understanding of these frames was really a preparation and summative evaluation for the significantly more formative lessons to be learned from the aid / relief research cycle worked through (and with a large number of active practitioners) in the field in post tsunami project and programme management.

The value of these actions will be discussed in Chapter 6, but whilst it was recognised this was knowledge gained for the following outcomes it was also recognised that it is not significantly adding value in its own end to the objective of understanding the antecedents to project management best practice. We may score, it but it would not score highly. Both the literature and my own experience were not built on this focus in project management predominately over the last 40 years – the rapid change and antecedent understanding needed a wider palette on which to reflect. That palette was surprisingly rich in the aid / relief world and whilst it presented significant challenge it also had the potential to offer significant insights. It was seen, from the outset, that a SSM methodology was the most appropriate in the first instance, but also that that methodology worked within the more widely applied and understood meta-methodology of action research.

The synergies, alignment and frames of both methodologies are very strong. These were reviewed in earlier chapters and in quick review here they both address context in both a social and physical setting. They both have a method for questioning and framing understandings and both research and action interwoven through a rigorous process for realising models for improving theory, planning and action within communities and practices. Whilst SSM has very good use of ‘rich pictures’ and this research, in particular, made extensive effect of that, other action
research methodologies offer the same opportunity and process in possibly simpler way.

5.3 Research Cycle 2 – Realise and Validate Significantly Improved Methodology.

The second and, what eventually emerged as the most important, research cycle involved a good number of seasoned practitioners from the field of aid / relief projects. This is very challenging work and the antecedents to project management best practice, whilst not always being the most orthodox methods, are necessarily extensively tested and robustly engaged in these environments.

At the same time, these methods have been worked for at least 40 years, as reviewed in earlier chapters in this thesis, and like other worldviews of project management have been worked for a long time leading up to that.

These worldviews, methodologies, communities of practice and in these cases, in particular, these practitioners, have extensive cycles of both practice and review over many years, contexts, different environments and results. They and these cases proved very worthy of the extended efforts this research went to, in order to capture their experience, views, insights, methods and project reviews in both the hard and soft side of projects and their necessary antecedents.

5.3.1 SSM / Rich Pictures from Post Disaster PM Practice in Real Environment

In this research and work leading up to it, I was always mindful, in dealing in each of the practices or communities in each and every intervention or project / programme in the field in this research, of how the participants may be able to take these methods forward in their own capacity and that of their communities and communities of practice. I also tested the forward use of SSM with my own practice employees and colleagues. In that respect project evaluation / action research was a significantly more enabling method than SSM for the vast majority of participants.

But for me for this vital second round of action research, SSM was the most wonderful key to understanding and knowledge that could be taken forward and for
the second stage outcomes projected for this research. It was through SSM we could also see the synergies elsewhere and where to go from there. Action research and SSM have enormous capacity for positive value realisation and outcomes in both a practical and knowledge research based development.

“Thus, the researcher contributes to a process of reflection based upon pictures, metaphors and concepts which provides tools for making sense of the development process. In this case the researcher is in no respect responsible for the guidance of the process. It is up to the project members whether they take notice or not. This means that the researcher’s role is mainly to reflect upon the meaning of the activities, something that encourages an abductive research process, where the actions of the practitioners are coupled to relevant theory and where relevant theory guides the researcher in looking more closely at specific acts within the project” (Johansson and Lindhult, 2008).

This quotation from the paper titled “Emancipation of Workability? Critical vs. Pragmatic scientific orientation in action research” references how action research may, with or without SSM, arrive at rich and valuable pictures and metaphors for understanding research objectives and outcomes realisation.

SSM does enable a good insight to, and understanding of, the key stakeholders, and in the seven stage SSM method that we used, and which is detailed following, it analyses the client, actors and owners and integrates their involvement into the process. However, Checkland later reviews his own perspective on this seven stage SSM and seems content, at times, with the simpler interventions of P, Q and R – “What to do (P), How to do it (Q), and Why do it (R)” (Bergvall-Kåreborn et al., 2004, Checkland, 2000)

Checkland’s root definition is a very useful concept, but it is not the only one which can be used to develop useful models for use by communities or communities of practice.

In overview or meta-review of the methodology for each cycle of this research, SSM works very well to enable the situation analysis and then help resolve models for communicative action and research. It also enables all the questions, previously
detailed and shown in the situation analysis of context of what, why, who and how? Through its rich pictures and diagrams to models, it brings out the soft and hard issues in the eyes, minds, experience and wants of the key stakeholders or participants and, especially in differing cultures and worldviews, brings together understanding and knowledge for use in research and action forward planning and process resolution. SSM serves a very useful function within this research in critical circumstances and enabled very workable solutions forward.

It works very well within the meta-research methodology of action research and the synergies that exist between them can be synthesised. SSM is a seven step process as illustrated in Figure 5.12.

![SSM Methodology Diagram]

*Figure 5.12 Seven step process traditionally worked through SSM and this intervention.*

In fact the model for action research is both a conceptual model arrived at through steps 1 – 4 and then from there it works to address steps 5 – 7, but in a more obvious cyclic research process and development forward. The problem situation and rich pictures are background for the root definitions which are otherwise enabled in the action research project evaluation methodology by the context
questions of ‘what is’ and ‘why’ in the situation analysis, and the ‘who’ and ‘how’ in the stakeholder needs assessment. The conceptual models for solution implementation come from the development of those. The benefit of the full model realisation, which was incidentally enabled by the SSM process in the first place, is its ability to resolve much more fully the full research question in following cycles evaluation and reflection.

At the same time there are numerous N.G.O., U.N., E.U., World Bank and various other publications methods which are similar and address what are commonly known in the field as ‘sit reps’ (situation reports). However, these also do not necessarily work as effective antecedents to project management best practice and also need better linking to effective PM practice.

The antecedents to project management effective practice are those of context and environment and that is what the next phase of this extensive research programme addresses.

Each of the rich pictures undertaken was, in fact, quite a body of work in itself both by the participant and by me as researcher. It entailed significant development, sequencing, review and updating until it was clear, representative and acceptable. It was, as it turned out in most of the situations, almost a canvas of that person’s lifework in that area. Like any significant artwork, therefore, it took on quite a degree of communication, planning, and resolution and outcomes definition.

The background, issues, processes, key factors, general and specific perspectives were from both extensive and often painful experience, or even more testing, from the failure of some effort, while in other cases they were from the inspiration of some realisation or more positive outcome.

The value of their outcomes was not arrived at easily or without significant preparation, experience, understanding and indeed empathy and relating between the researcher and the practitioner. In many cases what was intended to be a few hours interviewing developed into much longer stories, interactions, acquaintance,
even sometimes friendships, because these stories unfolded deep and challenging insights in the eye of both the teller and the listener.

The mapping of these onto a canvas, and the ordering to make sense, in the understanding of the framework leading up to these, of the antecedents to project management best practice in these more testing fields was also quite compelling. These were also a two sided development – the teller tells his/her story – the researcher or listener works to interpret that into a working rich picture of what were the main components of very challenged and possibly traumatic, situations where lives may have been lost and understandings lost and sometimes found. The teller finds sense in the reflection of someone he or she thought would not understand what they themselves may have been still struggling to understand. The two arrive at what one in isolation might never have realised - the company of two working through a journey from different worldviews testing projects and process methods, stories and reviews.

The benefits of the first stage/round of the action research process addressed in this thesis were very important to the value developed from this second stage SSM action research. Through the first stage action learning, whilst there were not significant findings in themselves, a frame and understanding was developed which enabled a process for this second stage and in interaction, interpretation and canvassing of these rich pictures.

There were several steps or processes antecedent to their final resolution and acceptance by each of the validating partners. It was first necessary to form an introduction to the process and to get the participants to be interested, in practice, in giving up time, in what for most was extremely pressured and valuable, to prepare and sit through the interviews and note taking that was then developed into working pictures and processes for their review.

To enter into engagement for these rich pictures was also possibly quite exposing for them in that they needed to work through some sensitive experiences and views to get to the outcome of what may or may not have been acceptable. The matter of
ethical treatment was therefore also very important and trust and confidence were a key consideration. I had previously worked with the vast majority of the participants in their actual post disaster environment and through some significant challenges and understandings of their own for their project organisation goals. That enabled a ‘first post’ interchange, but that could easily have not developed effectively had anything interfered in the sensitivities or realisation / outcomes of the rich picture development.

With that risk in mind, where we needed three (3) rich pictures to work through to the next stage we actually took on 12 to start with. The participants here were spread far and wide in very hard to reach locations in quite high risk working environments. The greatest likelihood was that in our travels and their working movements we might not be able to meet sufficiently to resolve these challenging rich pictures. Likelihood was that they would move on to Afghanistan or China or Pakistan or Myanmar or wherever the next disaster would break out and we would not be able to catch up accordingly.

So 3 from 12 rich pictures, in this high risk environment, were thought to be a reasonable number. The reality, which is still amazing, even now in the reviewing of the write up, is that 8 eventually signed off on their acceptance of these rich pictures. The understanding of each rich picture was not an easy outcome to achieve, mind you, for it still took significant travel through distant, often risky and remote locations to meet with these project people but we did receive one big piece of luck in that. With the help of some of them, we were able to meet up individually and socially over the third year commemorations of the Nias earthquake where a number of them had been involved as a follow on to the tsunami that had struck South East Asia three months prior to that. Then we were able to catch up with some at conferences later in other countries including Australia, New Zealand, Asia and Europe and others that I just had to go a long way out of my way to get to but it was surely worth it.

What started as a contingency in respect of the numbers of participants in the rich picture development ended up becoming strength in the reviewing of those and the
stronger synergies and synthesis that were able to be drawn from team. What did emerge was a clear convergence through these individual rich pictures through to the combination of antecedent and project factors that was better than ever expected. Again, this was partly due to the extent of work that went into the first action research cycle, the selection and communication with the rich picture participants and then the layering and process for the resolution of those rich pictures with each participant respectfully.

There were also decisions taken in the development of the rich pictures, from this and other experiences, which avoided particular problems and enabled better resolution and outcomes. One example was the non use of arrows. Arrows proved too specific and problematic for the vast majority of participants. This issue of arrows was partly a cultural aspect (more arrows joining means greater strength and convergence in some Asian cultures which could be quite misused and misunderstood) and partly lessons from my own project management history and developments, including the stage 1 action research of this thesis.

5.3.1.1 SSM Rich Pictures

SSM engages the process of finding out about the problems in the real world situation and possible resolutions to these using “rich pictures”. The “rich pictures” enable the development of the keys to understanding and resolving the complex problematic human situation in terms of its multiple interacting relationships between a range of factors including criteria, methods, cultural and political risks. Rich pictures enable the depiction of the physical and obvious issues as well as the often ignored, but very important, intangible or more subtle issues.

5.3.1.2 Context

Another of the key benefits of SSM is its engagement of the relevant perspective or context. Context and the world view, or “point of view” within which these solutions are to be developed, needs to be defined for the solution to be found relevant and realisable. Through the formulation of the mnemonic CATWOE (described following),
SSM enables the context of the problem and proposed solution to be put in clear and usable context. The value of the solution is then much more focused on the situation than if it were simply generic and all embracing, as does more normally happen. This context and understanding also brings a much stronger aspect of reality and resolution in the planning of the outcomes.

CATWOE considers the following elements

C  Clients who would be the victims / beneficiaries of the purposeful activity
A  Actors who would do the activities
T  Transformation process – what is the purposeful activity expressed as an input -T – output
W  World view or point of view that makes this definition meaningful
O  Owner – owner or stopper of this purposeful activity
E  Environment – constraints in its environment this system takes as given

In defining the above, any messy human and technical problem can be realised and in the best context. In a project management sense this can give the project realistic scope.

5.2.1.3.  Key Players or “Actors” in the Rich Pictures

The process to enable the rich pictures which have become such a valuable development in this research took a large amount of time, engagement and effort to achieve. It was mainly developed on projects and programmes in the post tsunami and post earthquake locations of the Indonesian Islands near or off Aceh. The interviewees included some of the most experienced and noted players in the post tsunami and later earthquake recovery, reconstruction, preparedness and further disaster response around the world.

The responsibilities and experience of these participants (or actors in the SSM context) included
1. An U.N. Consultant with Ausaid and Indonesian Government training involved in crucial Recovery and Reconstruction Programs in Nias and Aceh. (40 years experience)
2. The Indonesian Government high level responsibility person for recovery and reconstruction in Aceh and Nias Islands. (30 years experience)
3. The Founder of an International Non Government Organisation (NGO) for Recovery and Health Programs on several Indonesian Islands (30 years experience)
4. An Ausaid Funded Emergency Preparation Program Manager for the Nias and Mentawai Islands who I worked on the Tsunami recovery programmes which were tested for real with two subsequent earthquakes. (15 years experience)
5. A community resident in the area of Lokh Nga, Banda Aceh who lived through the tsunami, lost family members, but then was very involved in the reconstruction and livelihood efforts in his village and has building and construction experience at the same time (many years local and international experience)
6. A young field co-ordinator in the recovery and reconstruction of an American based NGO involved in both reconstruction and livelihood development in the stricken islands (2 years experience)
7. An Australian Qualified Project Manager working on Ausaid and other funded projects in Aceh and Jogjakarta reconstruction over the time in Program Design, NGO Agent and Prime Contractor (12 years experience)
8. The COO of an International NGO working in both Australia and Indonesia in the time period after the Tsunami and in related Health care and Disaster Emergency Preparation and Recovery Programs (7 years experience).

These were a very experienced and well qualified cross section of practitioners from areas of the relevant responsibilities and challenges and it is noted that in the approved PhD program there was an initial commitment to develop this action research with three only players (or actors in the SSM methodology). These larger numbers were taken in order to be absolutely sure of the outcomes in respect of the
key steps convergence necessary to gain the overview and agreement to form the workable picture forward.

In understanding the antecedents of project management best practice in all range of environments we then moved to best understand the framework for the lessons to be learned from post disaster aid recovery projects. We needed to explore and make explicit, often tacitly held, assumptions that underpin sound PM practice. To form the required infrastructures for competent PM practice to be achieved we needed to review both best theory and practice. We did this by comparing best PM practice (as experienced and codified in the literature and evidenced and demonstrated in practice on widely accepted, successfully completed projects) with PM practice on distressed and troubled projects which take place within the context of post-disaster relief projects where there is a notable absence of the characteristics of required and identified PM antecedents. Or, conversely, to better understand what seasoned practitioners in these regions and this work see as fundamental from their theory and practice and compare that with what methods are available globally. Action research through SSM enabled us the clearest way to do that.

5.3.2.4 Rich Picture Outcomes

The rich pictures that evolved from this work took significant and painstaking work as each one needed to achieve validation from these very busy and focussed key personnel. In most cases the rich picture effectively became, in many ways, as previously referred, that person’s canvas for their life’s work, or recent part of that. The interviews were mostly carried out on site in their chosen location and to best interface with and witness their challenges and problems. This took the writer to the outer reaches of Indonesia. In each case the interviewees were very valuable participants, but also appreciated the effort and feedback required in each exercise.

The eight rich pictures did evolve a very strong alignment in the processes that emerged from them. The key coded colour and three level layering processes that
the writer introduced to the process was a valuable development further to past traditional use of the SSM process.

It is not possible to relate or include all eight rich pictures in the main body of this thesis, but some important examples are shown in order to give the necessary insight to both the very useful process engaged and the outcomes in a research and development sense.

This first rich picture is quite typical of the overall verified outcomes (see Figure 5.13). The real size rich pictures, of course, do show more clearly the problems and sometimes found solutions or realisations of all the key players. This one was set in a

![Rich Picture](image)

**Figure 5.13 Rich Picture From Survivor and Resident of Village in Lokh Nga Banda Aceh**

village that was possibly the most publicised and devastated of all. The participant was resident there when the tsunami struck and remained there during the recovery and reconstruction phase. The interviews for this rich picture were actually carried out overlooking the ocean at a place called Lokh Nga out of Banda Aceh where the
tsunami struck with devastating and extremely destructive force. This person lost members of his family and was heavily involved in community rebuilding after the tsunami. You may note the caption to the upper right hand side which quotes an Acehnese saying framed after the tsunami and during the early recovery experience. It says simply ‘that Westerners have heart and talk that is bigger than the hand that follows’. This relates their local folklore and experience that NGO’s and UN and other aid agencies were often not able to follow through on the expectations they initially set. This mismatch of outcomes and expectations was due to a number of factors, not the least being that they had little or no understanding of the antecedents to PM practice.

There are many more captions, depictions and key realisations evident in this rich picture as in each of the other 7 validated ones and some of the work through of these can be seen in Appendix 4.

The key points of the importance of the stakeholders, their meaningful engagement, that sharing of the vision of the reconstruction and the forming of practical plan, worked locally and managed towards sustainable outcomes is a repeating theme through the rich pictures and this one sums it very well. This one brings out not only the key stakeholder importance as well as the need for urgency, flexibility and practical planning to enable sustainable outcomes. It also touches on the need for trust and working out the key goals for and within the community.
The next rich picture (Figure 5.14) below is from the Indonesian Government Officer responsible for the recovery and reconstruction of Nias and further areas of Aceh, both post tsunami and then following the earthquake that struck three months later. This development work in Indonesia took more than three years to manage and then this rich picture participant, with his understanding and experience, was seconded to Burma after the devastating cyclones there.

Figure 5.14 Rich Picture by Indonesian Govt. Officer for Nias and Aceh Recovery

The next rich picture below (Figure 5.15) is from the Founder of a Non Government Organisation (NGO) based in Indonesia who carried out significant recovery work in the Indonesian islands most devastated by both the tsunami and the earthquake which followed 3 months later. Again this rich picture, although done by someone from a vastly different worldview and position, sums similar aspects of sharing and, in this case, leading the vision and values, planning and progress monitoring to achieve sustainable outcomes. It also notes the need for kindness, trust, respect and even love. It sees success as ‘getting people with the same vision on the same path.'
One may start to see by now synergies in the points brought out by each of these people. The synergies only got stronger as more rich pictures were partnered.

![Figure 5.15 Rich Picture by the Founder of a NZ / Australian / USA NGO working in Indonesia](image)

A number of key points came out of these rich pictures and some were repeated across all and others were more characteristic of the particular circumstances of the programmes, purpose, local environment or context of that person or group.

It is nevertheless interesting to draw out some particular points of some of these rich pictures. Fig. 5.14 draws us to trust, sensitising in the local context, empathising and understanding. Fig. 5.15, for instance, has a key factor of the vision of the programme to be shared and led. Leadership did not come out as a key success factor from the 8 rich pictures, interestingly, overall. It certainly was seen as an issue but the methods, communication and outcome management were much more prevalent as key factor representation. Fig. 5.15 also addresses kindness, trust, love and other aspects which did not appear as strongly in other rich pictures but are nevertheless understood to
be important. These issues also fall into the frame of leadership and emotional intelligence, as reviewed in Chapter 3.

What were a considerably more consistent background issue were the points of empathy, leadership, trust, confidence and culture. It is therefore important that we do not lose sight of these and it is also why we went into so much depth in the philosophical background to our methodology and outcomes. Key being here being, that critical reality sometimes had the danger of not recognising these issues sufficiently whereas praxis and pragmatism could incorporate them more readily and workably.

The last rich picture brought to the fore here is included because it probably sums up the collection and is shown in Figure 5.16. This rich picture was done with the Australian C.O.O. of an NGO involved in the post disaster programmes working in Indonesia, but mostly out of headquarters in Australia. The key steps or factors

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*Figure 5.16 Rich Picture by C.O.O. of Health NGO Based out of Australia into Indonesia*
drawn out here relate to the importance of the stakeholder engagement, objectives sharing and organisation, the programme planning, the importance of the communication process and the need to get an effective process between top down commitment and bottom up planning. It also brings out the need for commitment to the project plan and the keys of monitoring and evaluation to sustainable outcomes. Again, whilst not seeing them as key factors, it sees the need for empathy, understanding and learning. It also raises the question of leadership.

The full collection of rich pictures can be seen in Appendix 4. Each picture is very interesting to review for they certainly elicited much more understanding and structured insight than ever expected by anyone.

What evolved from these rich pictures was a very clear synergy of steps working through each one to the overall sum and this process, as noted above, can be viewed in more detail in Appendix 4 and in Fig 5.18 later in this chapter. These key steps were able to be reviewed together and consistently through the methodology of the development of the rich pictures. The interviews and extensive notes were taken and reviewed with each participant separately and confidentially. The key steps of factors, as agreed within those reviews, were then interpreted into three layers on the pictures in a general sense.

The background graphics and pictures were the ‘what’ of the relating, the captions were the background to the needs and the keys steps they saw extracted were the ‘keys’ to the method and ‘how to’, the need and the resolution of such experience and how they may work in reality. Initially it was not intended to review these in separate layers – that process evolved because of the interest and responses / questioning from some of the rich picture partners in their want to realise what it meant to them and their work forward before signing off.

This layering and extraction actually brought out more significant value than expected by any of the participants, myself (I was very challenged just getting out to all these far flung places and very busy people and working to translate what they saw and told and then to get the rich picture that actually worked for them) and my
supervisors. All were eventually impressed at how clear the alignments and outcomes were. The extraction of the layering of each rich picture and its aligning factors can be seen in Appendix 4.

What also proved very valuable was the use of the natural precedence of colours, which has been realised in other arts and sciences, in the development of the sequencing and flow through the various timings and precedence of an antecedent and project development. So that rather than a flow chart connected by logical or input to output, systematic positivist type arrows (which most of these sort of operators just don’t work with and may see as too rigid or mechanistic) the same sense of precedence and flow, but with less fixed rigidity, was developed through the intelligent use of colours, much the same as an artist would develop in a canvas.

<table>
<thead>
<tr>
<th>Rapid Environment Assessment Logframe</th>
<th>Red: urgency, danger, fire, blood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stakeholder Culture Organisation Program Evaltn.</td>
<td>Orange: support, integration, warning</td>
</tr>
<tr>
<td>Communication / Portfolio / Governance / Comp</td>
<td>Yellow: persuasion, intellect, creativity</td>
</tr>
<tr>
<td>Plan Projects / Programme / Feasibility / Inputs</td>
<td>Green: growth, go, safety, nature</td>
</tr>
<tr>
<td>Monitor Implementation / Manage Resource</td>
<td>Blue: depth, sky, sea, achievement</td>
</tr>
<tr>
<td>Evaluate / Outcomes / Learn / Sustain</td>
<td>Purple: independence, wisdom, dignity</td>
</tr>
</tbody>
</table>

*Figure 5.17 Review and general use of international Meaning of Colours*

These colours also have synergies in international use such as danger, growth; communication, safety and wisdom (see Figure 5.17). That more general understanding and feeling was able to enhance the development of the order of outcomes or the more human understanding and development of sequences, both in background and key factor, front end process and resolution. This was never seen as an end in itself and crucial to the research, but certainly did enable the less threatening and more flexible arrival at key process order and communication. In fact the value of the colour sequence was picked up on by all the participants, even in the peer review by western practitioners in primarily ‘hard’ project worldviews. It was also seen to enable colour coding for rapid decision location and enactment to sense-making in post disaster response and categorisation in later manual
development – which is not unlike the colour coding that enables purposeful enactment in emergency hospital response wards.

> When people take some action, they often transform a more complex task into a simpler task. This occurs because action clarifies what the problem may be, specific action renders many cues and options irrelevant, and action consolidates an otherwise unorganized set of environmental elements. (Weick, 1988a; p315)

As it evolved, this rich picture approach (for these key participants) and outcomes proved as important, if not more important, than the words and processes that followed. Many of the participants later told that working through this process actually clarified their own view of their own perspective and experience and gave clearer insight and understanding into their project management and that in general use. There was as much gratitude from them for being involved (for their own sense-making and realisations for better project application forward) as there was for our need to have them involved.

It has been part of this author’s folklore and learning, and is that project paradigm, that project management is part art, part science and in previous project planning developments, in both the ‘hard’ and ‘soft’ world. The use of colours and the idea of their natural understandings, as well as process developments, are integral to developing a pragmatic working resolution for practical practice outcomes. This illustrates further evidence of his and this general research paradigm where sensemaking is enacted through being a ‘bricoleur’ and pragmatic using whatever useful tools can be fashioned out of objects to hand (Weick, 1988b, Weick, 1995, Weick, 1988a, Walker et al., 2008a)

The strong synergies that developed in order and process through the eight rich pictures in terms of key factors, made the identifying of the recurring keys in both antecedent and project frame unexpectedly clear. The process for drawing those out was not a difficult one either in that each of the rich pictures had been drawn in a certain layering form with the background factors embedded in the actual pictures themselves to give context and relating, the issues and needs were in the captions of each rich picture and the personal, or seen key steps, were in the actual ellipse type
process steps. From each rich picture the key steps in particular were extracted and compared and the repeating synergies or most recurrent steps, were mapped to a summary flow process with alignment in colour and sequence evolving from that.

The key steps for each of the 8 pictures were then extracted (see Appendix 4) and that is where the very strong synergies became so clear. One such extraction is shown in figure 5.18 which typifies the key factors review.

The alignment and synergy evident from this led to a very clear overview of the process and this also came from the very clear agreement of the key rich picture participants from the disaster zones and their experience of recovery and reconstruction programs. This then enabled the root definition to be addressed with strong convergence and agreed scope.

5.3.1.5 Rich Picture Summary and Direction

These key antecedent factors were further developed with relevant agreement by key players or actors to arrive at the attached six page outline (see Appendix 5) and the page summary to follow in section 5.2.3.
Through reworks and reviews with some of the participants and other peer reviews these key process steps and key issues needs / background were synthesised to a summary set of key factor aggregations as show in Figure 5.19

![Figure 5.19 Summary Key Factors and Issues Repeating from 8 Rich Pictures](image)

It is worthwhile spending some time on the overall review of the rich pictures as they brought so much more understanding to the key factors, issues and, indeed, to the what, who, why and how of the antecedents to project management and practice itself.

What was drawn out in the rich pictures included earlier in the body of the thesis above was the consistency of the key steps or factors and those repeating through most, if not all, of the rich pictures. This consistency and synergy was even drawn out in the singular reviews of each of the rich pictures featured in the body of this thesis,
those being stakeholder engagement, vision / objectives shared and led, the need for urgency and flexibility in communication with community and values, programme and project planning, commitment, monitoring and evaluation to sustainable outcomes. Although these did not come out as critical success factors in this rich picture set of engagements, they did draw on the realisation of the need for leadership, trust, empathy, and other social and emotional aspects which may then call on authentic leadership as outlined earlier in this thesis. Leadership, authentic or otherwise, and emotional intelligence of the project managers were seen as being an important part of the recovery. However, it was not always possible to ensure that. It was seen that these issues of integrity, ethical and authentic leadership, emotional and social intelligence are a part of the why and may even be able to be embedded in the process rather than rely on who may, or may not, have what it takes in terms of ethics and leadership in the challenging contexts and programmes.

The root definitions for the development of the project working models for review by both the participants and wider body of practitioners and researchers was equally necessary and enabled through the 7 step SSM process previously outlined. The process of understanding the real problem herein enabled by the SSM rich picture process can also be enabled by other action research and project evaluation processes, but possibly not quite as strongly and clearly as these were developed here through the process outlined above.

There are a range of processes that will approach and enable either key questions such as what, why, who and more detailed breakdown of these for clarifying the real situation which we will visit later in this thesis. The point of advantage for them over the rich picture process outlined above is that they are simpler and more able to be used by the average project or community engagement practitioner or field worker and less demanding of deep understanding or artistic or ‘bricoleur’ ability. Whilst they may not enable the depth and synergy of realisations or breakthroughs that the above outlined engagement does, they may arrive at sufficient in good time in the difficult circumstances to arriving at the situation analysis for general practice by general practitioners.
The third stage in the SSM 7 step process is that of defining and refining the root definition, which then forms the context of frame for the development of models for the resolution of the findings of the intervention or study. The root definitions are guided by a mnemonic CATWOE as set out previously herein. This CATWOE gives good respect for, and to, the key stakeholders need of any programme, action research or general community project process. It is possibly why SSM has proven so popular amongst project research professionals in that at least it leads the communication through the essential people to some agreed and workable set of outcomes.

As stated earlier, project management in its history, at least in the way captured in the PMBOK, does not take people into stakeholder engagement theory or practice, very effectively at all, and neither do a lot of project research methods. Value is also an aspect that is not very well addressed in either the PMBOK or project research methods, but at least with SSM and the benefit of the 7 step process mnemonic CATWOE it does discipline researchers through the people / stakeholders issues.

Three of the letters in CATWOE relate, in fact, to people / stakeholder issues - C for Client, A for Actors and O for Owners. These are all three key aspects of normal stakeholder engagement resolution. Stakeholder engagement process will be dealt with later in this thesis, but it guides people through looking at ‘who in the who’ - who holds the power or ownership, who has the influence, who are the beneficiaries, who is in alignment etc.

The issues of the ‘who in the who’ or any form of effective stakeholder engagement is presently an underdone aspect of PMBOK type project management and whilst the PMI Standards in Programme and Portfolio Management have latterly attempted to address this previously underdone aspect they still seem, and read, like ‘bolt on after-work’ treatments rather than the integral front end or antecedents needed to enable project management best practice. More of that later, but it is quite a challenge to address this necessary enablement and that has eventuated into one of the primary challenges of this thesis, hence the focus here.
In later stages of development of SSM theory and implementation, Checkland resolved to a simpler 4 step process and in that time also reviewed an alternative mnemonic to CATWOE in that process. This alternative or optional 4 step process is summarised by him as questions of What to do (P); How to do it (Q); and Why do it (R)? (Checkland, 1999, p. A23f.) (Checkland, 1999)

Notably though, this latter Checkland process does not address ‘the who’ in the stakeholder engagement process, but, Checkland does deal with it otherwise. The problem here though is that people using this simpler 4 step process may lose some valuable stakeholder engagement parts of the fuller CATWOE and necessary stakeholder engagement in the process.

This resolution can be reviewed later, but for this 7 step process here the mnemonic CATWOE is set out and sets the frame, context or point of view for the engagement and then the resolution within that context. This point of context is an essential one and is a repeating necessity throughout this research and project research in general. It is also effectively the situation analysis of outcomes and actions of Dick and action research previously referred to. SSM, as stated earlier, is a function of action research so they both go hand in glove.

The framing of the CATWOE as seen here then leads to the processing of the models for resolution in respect of a greater understanding of both the problem situation and the solution. There is an old saying that goes something like ‘the better the understanding of the problem the closer the solution’.

Steps 1 & 2 in the 7 step process are set in the ‘real’ environment, steps 3 & 4 have the flexibility and freedom of being addressed in the ideal or systems environment which brings the advantage of being able to move and improve the frame and models until they best resemble the environment they are being designed for. This improving process, in and out of the ‘real’ to the ‘ideal’, comes from systems thinking, both in open and closed systems theory. It brings significant value because it allows objective thinking in a given situation and an improving resolution process. However, it is not unique to either systems or SSM theory and implementation.
Project planning, for instance, goes back, and before to Gantt a century ago and even earlier in civil engineering and other design and right back possibly to before the design and building of the pyramids – it is best to work in theory and design before putting works into practice.

Nonetheless, the value of this ‘real’ to ‘ideal’ and testing before implementing of SSM is valuable and the process of taking people through this is one reason why it has proven so popular. It did indeed prove a very valuable process in the second stage of this research and in realizing, together with several other key players, the antecedents to project management best practice. At the same time, and because of the project paradigm, epistemology and previous methodologies of this researcher and others, it was realized that this SSM was both a valuable, but particular skill and resource - demanding process that might not necessarily work for all or in fact the majority of project people in the field. In this light an eye was kept for the apparent synergies of SSM to other action research and project front end methodologies for later review or development in this thesis.

5.3.1.6 Stage 3 & 4 - ROOT DEFINITION - Post Disaster

The following root definition is enacted for understanding in a post disaster scenario and our analysis in this treatment, in particular, below.

A group / project / manager has to rapidly assess the feasibility of competing projects for a community after a disaster or for general aid / relief. This is done for, and in conjunction with, a group of stakeholders to scope, plan and implement (if feasible) a programme or project to enable disaster preparedness or recovery / reconstruction to a set of sustainable outcomes.

CATWOE Key Sentences

Client: Community, Donor

Actors: Stakeholders i.e. NGO, Donor, Community, Local Government, Project Manager, Aid Partners.
**Transformation:** Tangible & Intangible – Infrastructure / Shelter / Security / Livelihood / Knowledge, Process, Trust, Support, Empathy, Understanding, Sustainable and Safe Future

**Weltenshauung (Why Bother?):** Because it is urgently and desperately needed to assess the achievability of planning and implementing an emergency preparedness / recovery / reconstruction / livelihood project or programme – does it align with the need and group objectives, who are the key and reliable stakeholders, can it be resourced and will it achieve a sustainable outcome?

**Owner:** Project / Programme Manager (for) Donor / NGO / Community (Key Stakeholders).

**Environment:** Poor, under resourced, possibly desperate or endemic context, urgent needs, demanding and possibly hostile environment, need for long and short term goals.

To enable a group / temporary organisation of Community, Donor(s), NGO(s) / project manager to assess, scope, plan, agree, commit to and implement (from competing projects) an appropriate and feasible programme for a community after a disaster or for relief / recovery / reconstruction / sustainable outcomes. This root definition is summarised in Figure 5.20 in the form of a flow chart or work breakdown structure.
The 8 rich pictures drawn from the post tsunami and earthquake experienced participants showed very strong convergence and even more striking was their synergy with the key steps emerging from the earlier literature review of all range of projects and the experience previously related in Australia.

5.3.1.7 Using models, defining changes

The Soft System Methodology, either in its summary form (and especially where understandable and interested stakeholder engagement is to be enabled) as outlined above or in its full seven step CATWOE process, gives more sufficient coverage than other methods canvassed of the necessary but flexible assessment, scoping, stakeholder engagement and planning to achieve sustainable outcomes. It remains, in this instance, very valuable in what it was able to bring to the surface and for these key players in the field and managing such large programmes to see and agree.

5.3.1.8 Taking action

The rich pictures, in their synthesis within the context of the root definition, did arrive at a very convergent set of key factors in a very sensible process or order and in strong alignment with the keys of each of the 8 rich validated participants.
This was a much stronger outcome and with more alignment and insight than was ever was expected, even from seasoned practitioners. The significance of this work would resound throughout the following stages of this thesis and also in review of the work, both in previous experience and literature review. This summary is show in Figure 5.21 and this and its related agreed possible process solution become the focus for the peer review to follow. The steps to any project success, as has been touched upon previously, are in achieving sustainable outcomes by planning, doing and reviewing.

However people do not find this an easy thing to do and nor do they see how to plan the various objectives or measures at different or any levels of organisation, programme and project. There is an old Finnish saying “Well planned is half completed”.

The key to successful organisations, programmes and projects in any environment is in knowing how to enable the process to plan, do and review objective outcomes in the environment that organisation is to work in and with due regard to communication, competence, commitment and consequent risk.

Figure 5.21 Summary Rich Picture Antecedent and Project Keys

In the planning process for each level i.e. at the project, programme and organisation strategic level, the steps are generically the same i.e. break the objective into key items to be progressed and then review their value and risk and
how they are related at the project to programme stage through core values to see where the necessary fit is achieved.

The generic process of plan, do and review is not difficult in itself. It does, unfortunately, get confused when there are combinations of views, levels of organisations, programmes and projects and where the core process or sequence for evaluating the necessary criteria is not well understood. This otherwise confusion can be simplified by looking at each of the three different levels of a project to programme to organisation vision achievement through the same intrinsic series of steps with the different actions and criteria connections which enable success as a whole.

Take the enabling of an organisation’s vision – the vision is a statement of the future realisation. That vision is planned through the core values to arrive at key strategies to maintain that vision over time. Programmes to enable these outcomes will be aligned according to the fit, value and risk factors and then enabled through planning those outcomes through projects.

A programme is a broad effort encompassing a number of projects and each project also is enabled through a plan, this time through key steps to timelined outcomes, with allowance for risk and reward. There needs to be an objective means of defining programme and project priority and every programme should articulate the projects that will allow for its attainment, and every project should directly align with and support the delivery of the strategic plan.

The synthesis and resolution of these processes then developed into the following conceptual model for solution implementation, illustrated in Figure 5.22.
Rich Picture from Post Disaster PM Practice in Real Environment

Reflect and Synthesise Key Findings from Field

The findings here were a significant and unexpectedly big step forward for the research practitioner and the researched practitioners and practice in general. Firstly there was a strongly aligning and validated set of key antecedent and project factors identified and resolved amongst a wide range of respected and experienced practitioners in the field.

Secondly what had emerged was the realisation that the antecedents, at least in these international aid project, higher risk zones, had more effect than had been understood by any previous work in this area.

Thirdly the unexpected alignment of the key factors and their possible categorisation into a three level solution (i.e. organisation to programme to project), whilst being the natural way in which a lot of this field practice had been developed through the...
history of LFA and PCM, actually brought more due process to this research than if it had been set within the more traditional PMBOK type communities of practice.

It is admitted that initially we thought we would be taking lessons to these aid project practitioners, not them giving us lessons – and ones so significant. The reason for this is self evident once one has time to reflect upon it. These international aid projects, from their inception to their completion, are considerably more exposed to changing events, environment, politics, risk, and less stability than traditional projects. Hence, although it is not immediately obvious, these projects and practitioners have had to develop processes that are more open at the front end to work into problems and solutions and move through changing conditions and situations. LFA is notably better at the ‘front end’ of projects than PMBOK and has been working in that respect for over 40 years, whereas PMBOK is better in stable conditions where the ‘front end’ is mostly set.

So from the work developed in the first research phase of this thesis it was a reasonably straightforward step working through the root definitions and the three level overview and point of view synergies to the three level and interconnected cycles.

The synthesis of the organisation to programme to project interconnected cycles, again benefiting from the action research and project programme alignments also realised earlier in this thesis, was quite a focussing and aligning frame for work forward and this was to prove every valuable ongoing.

**Understanding** – These results and findings were clearly significant and of value to both those participating and further afield - **Rating 4**

**Practice** – these were confirmed in practice both through the participating practitioners and through other means – **Rating 3**

**Community** – strong interest and supportive response all round - **Rating 3**

**Objective Impact Value** – significant value but not yet completed in process and method - **Rating 3**
But the most powerful of all arrivals was the six page summary developed through the SSM process set out (see Appendix 5, previously referred to) and leading into this next phase. The presentation of that summary to the peer review workshop following was, again, very aligning and validating.

**5.3.2 Critical Success Factors and Criteria Outcomes from SSM and Peer Review.**

The key factors arrived at were then taken forward to be tested and/or validated by a completely different set of experienced practitioners through a workshop facilitated at the MCG in Melbourne. The outcomes of this updated outline and summary follow and are attached in further detail in Appendix 5.

The validation of the second research cycle was enabled by communication of both review and reflection (summative) with the rich picture partners at the same time as forward (formative) review and reflection with professional project management practitioners from a broader grouping than the aid / relief project world.

The validation workshop was held at a suitably reflective venue – the Melbourne Cricket Ground Executive Suite overlooking one of the most used and famous sporting venues in the world. The venue was also appropriate because the practice outlined earlier was the project manager responsible for its $430 million redevelopment for the holding of the Commonwealth Games and this practice won the 2006 AIPM Project Management Achievement Award for the stakeholder’s satisfaction and successful outcomes of a major community project. The reflection of this formed a background for the review and critique of what was developed by other aid project managers through this further practice research.

The participants were as follows;
1. Programme Manager for a National Communications and Technology Group (30 years project experience)

2. Project Director for Local Government (30 years organisation, programme and project experience)

3. Engineering Manager for an International Petroleum Consortium responsible for large refinery programmes and projects (40 years organisation, programme and project experience)

4. International Development Project Management Consultant (35 years project and programme experience)

5. Programme Planning Management Practitioner responsible for major local and national projects in government and private practice (22 years organisation, programme and project experience)

6. Project Management Practitioner working mainly on major building projects (8 years experience)

7. Project training practitioner (10 years project experience)

8. Project Practitioner – projects and programmes (3 years experience)

9. Project Programme and Project Consultant Practitioner (6 years experience)

10. Project Programme and Project Consultant Practitioner (30 years experience)

And this PhD supervisor Professor Derek Walker

The forward preparation of this workshop firstly centred on who was most appropriate for the peer review, how to brief and prepare the participants and process for the workshop and the follow up necessary from that. The participants were mostly practitioners working on all range of projects in Australia and some on overseas aid projects at the same time – whilst not being from the original set of rich picture participants. The group included programme managers from major Australian organisations, project Managers from traditional design and construction
backgrounds, group managers, project field co-ordinators and other project management professionals and academic staff. They were forwarded summaries of the key factor outcomes and possible solutions / processes for models and feasible action forward.

The actual workshop day consisted of an introduction reflection upon the road less travelled to this point, general understandings of project management success and the overview of the antecedent aspect to project success. It also involved some reflection upon the very different environment of the workshop compared with that of post disaster and the aid / development world in general.

The group was then formed into work teams and each set of key factors for each possible project phase evolving from the previous findings from Aceh and beyond was reviewed, critiqued and re-formed where it was felt to be necessary. Some valuable modifications were arrived at a result of this, mainly in the need for definition / terminology of each of the key terms used. This problem of definition arose because different sectors may have traditions of different understandings for the process of use of some words such as ‘programme’, ‘environment’ and others.

The workshop, whilst being very valuable in its review and reflection, and containing some very respected and seasoned practitioners, did not markedly change any of the key factors findings. It came through significantly that most of the attendees found the day itself of value, informative and reinforcing in the more rapidly changing world they themselves were facing.

This is when the full realisation where we had originally thought we were going to teach the less professional project people in the high risk, poorer and disaster prone areas how to do it that, we were, in fact, learning from their experience through this effective SSM engagement and methods developed over decades for more diverse front end and antecedent to project management practice challenges than ours.

It was expected that the MCG validation workshop would actually impact and change and challenge our research to date much more than it did. What we in fact found was that our findings from the disaster response fields of Asia actually
impressed and challenged these seasoned project management practitioners more than they or we expected. It was then that the significance of the focus on the antecedents to project management success begun to dawn upon myself as researcher, in particular, and on the wider group, in general.

The following summary of the resolutions, findings and validations of the peer review workshop is set out below in Table 5.2 and the full six page summary with key word summary is in Appendix 5.

5.3.3 Key Antecedent and PM Best Practice Factors

5.3.3.1 Workshop Findings

The table on the following page summarises the key findings validated at the workshop. The full six pages are in Appendix 5.
Table 5.2 Summary of Key Success Factors for the Antecedents of PM Best Practice

<table>
<thead>
<tr>
<th>Key Factors for Rapid Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Environment - Background, Context, Stakeholders, Culture, Values</td>
</tr>
<tr>
<td>o Programme Purpose – Key Objectives / Value, Sustainable Outcomes, Criteria</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key Add Factors for Stakeholder Engagement Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Stakeholder Needs Analysis Scope (may be in table / matrix form)</td>
</tr>
<tr>
<td>o Effective consultation with all relevant stakeholders</td>
</tr>
<tr>
<td>o Culture of Stakeholders and mix identified and understood</td>
</tr>
<tr>
<td>o Relationships addressed</td>
</tr>
<tr>
<td>o Power / Influence level and needs reflected</td>
</tr>
<tr>
<td>o Programme Governance Structure and Process / Methodology</td>
</tr>
<tr>
<td>o Scope / Value Criteria for Regular Evaluation and Project / Programme Management and how to get people to decide / agree / commit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key Factors for Communication Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>o People - Skills / Competencies / Self Actualisation keys</td>
</tr>
<tr>
<td>o Communication Process / Method – Understandable at each level gaining ownership, formal and informal</td>
</tr>
<tr>
<td>• Governance - Organisation Structure between all levels reflecting macro / micro value and have processes in place to monitor and evaluate. T &amp; C Budget</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key Factors for Organisation to Programme Project Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Feasible Programme / Project Planning - evaluation criteria focus / targets</td>
</tr>
<tr>
<td>o Group, Programme &amp; Project Evaluation Practice Values - Macro / Micro</td>
</tr>
<tr>
<td>o Practical Planning, problem solving, risk &amp; contingency planning, dependency programmes, commitment, s.m.a.r.t and flexible, human.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Keys Factors for Monitoring</th>
</tr>
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<tbody>
<tr>
<td>o Implement, Communicate, Lead and Achieve / Review Plan - Resolve, Replan, Update Action, Contingency / Risk</td>
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<tr>
<td>o Monitor Performance &amp; Commitment - People &amp; competence are key to interpret, report, forecast progress - Timeline, Resource, Contract, Budget, and Audit.</td>
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<tr>
<td>o Review Targets (monitoring) and Achieve Key Criteria ongoing thru Evaluation and Project Control.</td>
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<th>Ongoing Keys for Evaluation</th>
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<tr>
<td>o Value / Benefits / Performance / Simple Effective Workable Overview</td>
</tr>
<tr>
<td>o Key success criteria agreed &amp; smart simple but effective planning and communication methods – key Goals (soft &amp; hard), Questions, Metrics</td>
</tr>
<tr>
<td>• Simplify and Focus the Project - Maximise the realisation of benefits / gains</td>
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The final sign off for the resolution and agreement of these key factors, both in their six page and one page summary forms only came after discussion and agreement to the terminology to go with it – given that it was found that different groups had potentially differing applications of some of the terms used.

**Environment** - the natural world, especially as affected by human organisation / activity

**Organisation** - an organised body of people with a particular purpose,

**Purpose** - the reason for which something is done or for which something exists, resolve or determination, **Programme** - a broad effort encompassing a number of projects and/or functional activities with a common purpose.

**Stakeholder** - a person with an interest or stake in the organisation,

**Culture** - customs, institutions, and achievements of a particular nation, people, or group,

**Values** - A principle, standard, or quality considered worthwhile or desirable,

**Success Criteria (CSC)** - the standards by which the project are to be judged to have been successful in the eyes of the stakeholders.

**Communication** - the exchange of information, ideas, or feelings, a plan of the communications activities during the programme,

**Governance** - the functions, responsibilities, processes and procedures that define how the programme is set up, managed and controlled,

**Competence** - having the necessary skill or knowledge to do something successfully,

**Trust** - firm belief in the reliability, truth, ability, or strength of someone or something,

**Intangible Goals** - not directly quantifiable but which should still be built into the programme or project where possible e.g. improvements in staff learning

**Programme Management** - the co-ordinated organisation, direction and implementation of a portfolio of projects and activities that together achieve outcomes and realise benefits that are of strategic importance,

**Project** - a temporary organisation to undertake a unique, novel and transient endeavour managing the inherent uncertainty and need for integration in order to deliver beneficial objectives of change,

**Plan (ning)** - a scheme, program, or method worked out beforehand for the accomplishment of an objective

**Implement** - put into effect,

**Monitor** - keep under observation, especially so as to regulate, record, or control,

**Outcome** - results or changes of the programme or a process, including outputs, effects, and impacts,

**Critical Success Factors (CSF)** - key areas of activity or enablers with which favourable results are necessary for a group to reach its goal

**Evaluate** - to decide the value or worth of,

**Benefits** - quantitative and qualitative improvements expected or resulting from a plan or programme,

**Stakeholder Expectations** - what is considered the most likely to happen. Any expectation is a belief that is centered on the future, may or may not be realistic.

**Evaluation Criteria** - measurable Indicators that will be used to evaluate the progress to otherwise towards agreed (tangible and intangible) outcomes and long term desired impacts,

**Value** - relative worth, merit, or importance

These findings were consistent, derived and agreed from the SSM outcomes in post tsunami Indonesia. Further work on these summaries to resolve the process as well
as the key antecedent and project success factor summary, in line with all of the findings and lead up to this workshop, was also discussed, reviewed and the following overall summary connected to the project to programme organisation cycle previously referred to in Figure 5.22

5.3.3.2 Summary of Findings, Antecedents, Method Draft / Validation

Through the work following the peer review workshop the following agreed summary was arrived at and related to an organisation cycle and programme and project cycles working within that;

Table 5.3 - 12 point summary of key success factors related to overall process.

The Twelve Critical Success Factors from the Second Research Cycle.

1. Organisational Purpose / Vision / Values (Impact) to Assess Environment / Risk (Organisation and Programme Cycle)
2. Stakeholder Engagement Culture to Programme Purpose (Outcome) (Programme Cycle)
3. Organisation / Environment Communication Plan to Stakeholder Agreement to Governance Formulation (Organisation Cycle)
4. Stakeholder Communication / Co-operation / Competence / Support / Empathy / Learning / Commitment (Core of Programme Cycle)
5. Programme Plan & Values / Criteria (Indicators) Agreed (Intermediate Results / Objectives / Outputs with Assumptions and Risks) (Programme Cycle)
6. Project Goals / Criteria Agreed (Indicators - Evidence / Means of Verification Agreed) (Project Cycle)
7. Project Manager / Team Communication, Support, Learning, Co-operation, Competence, Commitment (Core of Project Cycle).
8. Project Plan (Activities / Outputs) (Project Cycle).
9. Implement Project Plan(s) / Action / Targets / Contingency / Risk Management (Project Cycle and Organisation Cycle).
11. Evaluate Programme and Project(s) Achievement / Criteria / Governance / Review

Targets, Risk, Criteria, Goals, Purpose = Update.... (Organisation Cycle).

12. Assessment / Evaluation (Programme cycle)....... 

And these 12 factors are situated on the three level project programme organisation cycle in Figure 5.23 and be seen on the cycles within cycles referred to previously

**Figure 5.23 Project Programme Organisation Cycle showing twelve key factor step process**

A Critical Success Factors and Criteria Outcomes from SSM and MCG Workshop

The value of these realisations and understandings was again extensive and possibly even more surprising. It was not expected that mainstream practitioners would so clearly validate and further integrate these factors and their working method. Several of the participants in this workshop provided feedback, further input and reinforcement.

Valuable understanding was achieved from all of this research and work and reinforced by practitioners as reliable practice and, in nearly all cases, the participants stated they learned a lot from the workshop and they could now see the antecedent and project management integration.

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In both the workshop and the interventions with the practitioners in the aid / relief world those respective communities of practice both appreciated and worked with those findings.

The impact of this work on the key research objective was seen as very valuable and certainly worth taking to further effect in the field.

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<th>Community Internal / External Valid</th>
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<td>4– Effective sense-making</td>
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5.3.3.3 Overview of Findings, Antecedents, Method Draft / Validation

While these finding had received significant validation and support, it was still questionable, in my, the researcher’s, mind at least, that it was proven workable in communities and communities of practice.

The process made sense in overall view, but how to make sure it would work effectively through the range of environments, contexts and people it needed to?

The opportunity to test this in practice came through an approach made from the Director of the Department of Planning and Community Development in my home state of Victoria, as well as working the same results through the participants of the previous SSM and validation work reported on to date.

The interesting challenge from this group, not necessarily new to our practice, but to them was this three level approach through strategic to programme to project levels and their various linkages and interacting processes and criteria.

This planning and community engagement led, in particular, to further work being seen as necessary to initially model and get effective understanding and ownership of the process and work at the different levels.

Through either SSM or AR it is possible to resolve a path to feasible action and reflection where these processes are enabled to work in these environments.
through a stage-wise capability maturity model as depicted in Figure 5.24 and/or ongoing cycles of action and reflection. Or alternatively in progressing action research cycles in a very similar process to that which has emerged from the SSM work.

We set a course to do this and to attempt to resolve the quandary that besets most organisations and that is the problem of converting strategic goals into programmes and have those programmes deliver relevant value through projects. Aspects such as leadership and the capability maturity modelling (CMM) previously referred to and called on by Lloyd-Walker and Walker (2010) could also be enabled through this CMM.

These projects can be attempted to be worked to resolution and problem solution and significant learning / knowledge gain / research may be obtained from this with the value add as long as it is being able to be understood at the same time.
The process is very similar to the process developed for the effective methodology prior and is outlined in the following sections. This project cycle management or project evaluation epistemology also enables very good rigour in this work.

Project Cycle Management and some sort of realistic workable Logframe (if that is still a good word for it – but it is so ingrained in so many funders’ processes) can sensibly be brought together and made co-operative and realistic, and can work in this day and age with all our other project methods and tools to support. Of these institutional ways the mainstreaming disaster risk management articles get there best, but there is even better and that comes simply from tried and true project / programme management methods worked better this way.

So what we arrived at is the following sort of process working, the main steps there being

1. Situational Analysis (Risk / Context /Environmental Assessment and Evaluation)
2. Stakeholder Analysis – Problem and Objectives to Outcomes Analysis / Alternatives
3. Selection of Targets and Indicators / Analysis of Risks and Assumptions
4. Project Implementation (which sensibly includes is review & possible adjustment of project activities and goals (and in the event of a disaster) and continuing stakeholder consultations on DRR (Disaster Risk Reduction).
5. Ongoing Project Cycle Management including updating of targets and risk management.

This then took us through following testing and realisations in the working background of that engagement. What evolved was that we do need two levels (or possibly three) / ways we could improve from there.

The work was summarised, again, as follows and in line with the actual Logframe boxes which vary from group to group, but essentially are in the vertical left hand
column of the traditional LogFrame (see Table 5.1) the following in general order (note this can vary in terminology in different areas);

1. Vision / Goal / Objective / (Impact)
2. Purpose / Outcome
3. Intermediate Results / Objectives / Outputs
4. Activities / Outputs

5.3.3.4 Programme or Project “Point of View”

This organisation programme to project process addressed the need to correlate the strategic goals of any organisation with the programme outcomes or purpose and then to correlate those with each project outputs or deliverables. The Logframe itself, if better developed using proven programme and project planning methods, is a good start to a solution. This took us to researching what is called the ‘point of view’ method.

The point of view allows us to relate between projects in programmes and overall organisation through different points of view as shown in Figure 5.25 following;

From The Organisation to Programme to Project Management “Point of View”

![Diagram showing the point of view from each level of an organisation]

*Figure 5.25 Point of View from each level of an organisation.*

People at different levels of any organisation will have a different point of reference
or view depending on their, or their organisation’s, role on the overall group.

Figure A5. Systems thinking entails thinking in layers defined by an observer (Checkland, 2000)

Nevertheless, a valuable co-ordinating and collaborating aspect is that from each level or “point of view” of any organisation the process is to define, agree outputs to
deliver outcomes and projects to programmes. This relating of different levels of organisation is also interestingly reflected in Checkland’s work. Again those questions helping define context and resolve the situation analysis occur more clearly through Checkland’s more latterly developed work – theory improved from practice as shown in Figure 5.26. which he refers to as ‘thinking in layers’

A simpler, but more easily understood, illustration of the point of view that may be used effectively for linking each level of an organisation or through different organisations working on the same set of projects or programmes is seen in Figure 5.27. This also illustrates in the cause and effect of the logframe method.

Through each cycle of research, the significance of the outcomes set and their level of achievement and their value in both single review and for the next stage moving forward, were reflected upon and evaluated, and these findings are set out in the appropriate following chapters.

Various project and action research models were then trialled and tested forward with respect to evaluation and possible validation.

5.3.3.5 Resolving the Enduring Model

The constantly validated synthesised and provably working model was the following one shown in Figure 5.28
Here we were able to test three dual cycles of research working in synthesis with the ongoing action and problem solving cycles – both of which were seen as essential for rigorous action research. We were able to gain significant rigour in both qualitative and quantitative methods through the evaluation of outcomes and the monitoring and review of project and problem solving actions. The general sequence of evaluating each cycle with the ongoing monitoring of action cycles comprising and leading up to each of those outcomes.

The actual key factor summary and their grouping into the front end communication and project planning to management and evaluation was strongly validated by the workshop participants and other groups. More to the point the realization of the gap in the necessary broader scoping and front end / antecedent was obviated. The
question then was how to resolve the best method encompassing all this forward, both for the thesis treatment and for the wider need and demand.

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<td>3 – Effective</td>
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The understanding gained and shared was significant all round, but the opportunity and plan for further testing of understanding, practice, community engagement and overall value of and to the outcomes was seen as adding further value to this work.

The validation of this research is the next key focus of this research. The two groups of experienced practitioners arriving at the same key factors and process / methodology forward is very strong validation in itself.

However, to understand this better, it is wise to review what validity is seen as and what it requires within action research, and also the critical and pragmatic paradigms in which this may be held to question. Validity in action research is focussed upon by a series of questions in researching organizations using action research (Eden and Huxham, 2006a) and by the cyclic action (Hope and Waterman, 2003b, Kemmis and McTaggart, 1988) to research, joined action and reflexivity (Shalin, 1992) that comes with each refining cycle through the evaluation of the planned outcomes, and their impact on the overall goal or objective as the key to its understanding and whether it adds value.

As previously discussed, evaluation can play a key part in the process to validation (Khang and Moe, 2008). The alignment realized in this research between project or programme evaluation, (Crawford, 2004, Stame, 2004, Ika et al., 2009) action
research (Smith, 1996, Zuber-Skerritt, 2002, Larsen and Cottrell, 2006, Crist et al., 2009) (Lau, 1999) and project management (Pollack, 2007, Hughes et al., 2004) (Winter et al., 2006b) is also key to the overall understanding and validation of the key factors and processed / methodologies engaged and their outcomes.

Through this alignment and the methodology which has further evolved through this research we can evaluate actions leading to key outcomes and, through this, achieve understanding, and therefore validation, as we progress through each of the cycles.

The further aspect that can be reviewed and reflected upon for validation in action research is that of internal and external validity (Eden and Huxham, 2006a). That is that the process works within the context of the particular engagement, but also that the knowledge claims from that can be replicated in other situations and are understood and applicable both inside and outside the particular context of the immediate research situation.

The second research cycle realised the key antecedent and PM practice factors through a very rigorous testing through 8 different practitioners working in similar, but quite distant locations and in quite a range of contexts and environments. These were then further validated by a similar number of practitioners from very different environments so that, both locally and then outward in differing contexts and situations, the factors tested out successfully here and even better than anyone thought they would, or was expected from theory in isolation.

Even further, the method which was resolved through this, in its alignment with action research, programme evaluation and project management process, was also not only validating process in its own development, but further provided the ability to validate other tests in other environments. It was also possible to go back to the environments from which this work was evolved and be engaged in work in all of these arenas with an eye to even more extended validation and evaluation of the outcomes impact on the relevant research or project to programme objectives.

It was thought possible by the PhD supervisors at the time that there was sufficient there in itself to complete this thesis. But that was not to be. Further extensive
testing and evaluation to validation was challenged, and met consequently, through a major disaster happening on our own doorstep.

The moving of the models and learning back to be tested and re-tested in the ‘real’ environment actually then took on a significant life in itself and also recognised a real need in our own community and, at the same time, an opportunity to apply these methods to good benefit for a community on our doorstep and in desperate need. This next research cycle response was significantly in the aftermath of the Victorian Bushfires in early 2009. That then led to the engagement of the testing of these methods and more in both a professional and personal sense, both as a practitioner of use in the field and as a researcher. I was subsequently (and my project practice still is) extensively engaged in the post bushfire recovery and reconstruction by the Victorian Bushfire Reconstruction and Recovery Authority for what has now grown to over 120 projects now. At the same time my sister lost everything except her life as a victim of the same bushfires and I was also to to support and advise in a more personal and direct sense.

Whilst we mapped and implemented to steps 5-7 in the forward resolution of this SSM engagement in Aceh (where I had also been engaged by a range of groups in post tsunami and post earthquake recovery and reconstruction) this latter development extended both this research and its resolution and validation well beyond that expected or previously intended. Therefore the latter steps of this SSM engagement became the initiating lessons for the subsequent stages of action research and also through the methods realized in this and earlier stages.

5.4 Provide workable processes to Community in practice

Our third research cycle was then to be the challenge of understanding the antecedents to PM best practice in community in practice (incl. post bushfire disaster in Melbourne, Australia).

This third cycle of research was initially intended to be further interviews and reviews / reflections in the same context and with the same participants as set out in
Chapter 1, section ‘1.5.2 Research Scope and Objectives’ stage 7 and 8. The follow up to this was done and work with further practitioners and communities duly carried out.

That summer, the State of Victoria suffered its worst natural disaster in history. That disaster took me, as reflective practitioner, author and researcher, right into the post disaster response, recovery and reconstruction as previously outlined in this thesis. That both challenged and enabled the further testing and validation of the outcomes of the SSM work and the MCG review and all that developed and was developed from that - and more.

The validation and triangulation that ensued, while considerably more than ever planned, was very formative and clarifying in its own need and outcomes. Whilst there was always planned to be a third research cycle / stage it was never envisaged that it would be so engaged and have such extensive testing, review, redo, reflection and redevelopment. This was also being carried out to a reasonable extent with an already validated methodology. The need and opportunity with this third stage review was to enable the most workable and understandable methods for the widest range of possible application and refinement.

5.4.1 Provide workable processes to Community in practice for implementation

The ‘harsh’ reality of this need for enactment and practical theory was immediately in view. SSM was tested in the response, but it was found a little complex for the average community engagement or project person to understand, both in the field or in the office and work within these more demanding and immediate conditions. What most people could relate to was a sort of project paradigm – who are the key stakeholders, what are the objectives, what are the priorities, what are the possible outcomes, what are the risks, what resources are required, when and how could it be done and how does this planned outcome or project compare with the other possibilities and needs?

Key questions of what, why, who, how and when came to the fore. Within the hundreds of competing projects and programmes and with the generosity of the
donations of the Australian people enabling sufficient funds for the recovery and reconstruction there were key processes and decisions to go through and review.

Our basic grounding in effective and practical project management was, nevertheless, a very firm base upon which to at least review all of what we needed to do or it was thought needed to be done. In the process of this, we also found that there was good stakeholder engagement process in place in some of the government groups we had to work with, so we developed that into the better engagement process necessary and flowed that into what we had developed previously – both through this research and over the previous 40 years of practice.

There was, and always is in these circumstances, an understandable degree of pragmatism in all this i.e. making the most of the situation and the key resources and understandings that may enable the best outcomes and actions through ways people could work with. But at the same time there was critical review and critical path review. We used all of our previous project management epistemologies and related methodologies to critically and pragmatically resolve what worked. This also needed to work from how the project managers worked with traditional project management, how to improve upon that in the community engagement and, particularly, how to enable better stakeholder engagement and outcome resolution and realisation.

The outcome of all that was the realization of a working model through the bushfire response which greatly improved key project scoping, resolution with key stakeholders and feasible commitment to key outcomes in reasonable time. Those methods and their evolutionary methodology, methods and forms are presented through Chapter 6 of this thesis.

From those it was possible for me to see an epistemology that emerged as one of the synergized developments of the first and second research cycles/ stages of this thesis, but now more clearly processed and working. This epistemology became quite sound and eventually, upon reflection, eminently sensible, realisable and workable. It came from the two main project working worldviews of project
monitoring and evaluation/ LogFrame / project cycle management (PME / LFA/ PCM) and the PM BOK’s worldview.

It was then integrated through this thesis using the more simple, but powerful, action research epistemology. The more complex or challenging aspects of project management and project evaluation which, however, were very aligned in process as illustrated further in this thesis, were then synthesised as we progress.

There is the potential to categorise this research epistemology into one of the traditional or historical mainframe paradigms of critical reality, positivism, pragmatism, as outlined in Chapter 3. But the reality we found in moving to and from the real and harsh environment to the ideal or systems environment was that none of those paradigms, in its historical or methodological frame, would neatly sum or fit what those worldviews in overlap need to cover.

They need to rigorously address the factual and positivist frame of project management planned and actual, the evaluation aspect of both ‘hard’ and ‘soft’ objectives of community rebuilding projects and programmes and also the social science aspect of stakeholder engagement and related project governance and response. So what we worked through was obviously, eventually, multi methods, but through methods already in place in these worldviews – to be improved upon no doubt, but nevertheless, already soundly formed and working in separate worldviews or project worlds.

To put this in its simplest outline, there exists in practice and research the project management bodies of knowledge (that is one part of the necessary epistemology with accompanying methodologies). There is existing work also in project evaluation / PCM leading to LogFrame and very well worked on billions of dollars worth of development / redevelopment and, thirdly, there is also action research methodology and supporting knowledge and knowledge capture, value measurement processes.

The combination of these into what worked in real hard (and soft) practice and theory (with the understanding that good theory is good practice) in these final
validation testing fields is what can be seen, effectively as, ‘project research’ as a further redevelopment of ‘action research’, but with its own, and better, environmental frames.

And so through various trials and paths, we eventually arrived at the understanding of the possibly better paradigm shift to ‘project research’, with its supporting epistemology of project evaluation, as the best paradigm through which to pursue a broader project understanding in future. This is a significant issue to review and reflect upon in the understanding and process. This then may enable a more central and robust research methodology and methods in project research with understood antecedents and then a consistent process for future project management in general.

The models, processes and methodologies which may lead to this ‘project paradigm’, with its ‘project epistemology’ and ‘project evaluation methodology’ and lifecycle methods to processes, are evaluated in this thesis, but as a possible subsequent realisation rather than as the prime purpose of this research.

The key antecedent and project success factors validated through the peer review workshops and follow up communications were developed into a working process at three levels – organisation, programme and project, as outlined. The different layers or ‘point of view’ then arrived at cycles within cycles. These cycles were at these three levels with the organisation level encompassing the interconnected programme and project cycles as outlined earlier. Each of these cycles can again be seen in context as a plan, do, review, reflect cycle and they can even be depicted in eastern yin yang balance as outlined earlier in this thesis.

These cycles all work within and without each other, but clearly they work effectively only when the antecedents to the project cycle are understood and in place.

This three level project to programme to organisation cycle was then put into practice and further testing and evaluation in both the local situation and overall general working interpretation in the post bushfire response in Victoria. The following
summary, three cycles working together process was developed through further
development of the action research to arrive at the best methodology. This brought
together the “point of view” (as outlined in Section 5.2.3.1) method effectively
working within the programme cycle management in a step by step process, with
each main step having key frames and being able to be broken down into further
detailed steps as illustrated in Figure 5.29. This methodology enabled people,
especially managers, to see the relationships and links between different levels of
the overall organisation, but at the same time to see their place in it and what they
were to work to.

This ‘point of view’ levelling approach is very similar to the standard work break
down structure approach of traditional project management where one works with
main frame summaries and then for each of those more detailed activities fitting
within each particular frame. This main cycle frame, with more detailed activities to
be checked off or enacted, was found as the most workable for the range of
practitioners and community in general to be applied to these projects and their
now recognised antecedents.

There are clear steps and links between each of the processes to be followed and
people can then focus on their area and what steps or processes fit or are available
within those, but at the same time see what else they or others may be dependent
on. This model got best understanding from managers who could see then who
needed to do what and how. It also provided logical order and sequence in
activities and resolutions so that people felt much clearer about what they and their
organisation were to do and had reference for the actions or processes that
belonged to each step or section of the project programme organisation cycles.
Each step or square has certain processes and requirements which then lead to the next step in logical order and through each cycle to realise the outcomes needed. For instance, the resolution of stakeholder outcomes (orange square) leads to the targeting of deliverables (light brown square) at the linkage of the programme and project cycle. These then led to the need for certain competency in the realisations or capabilities in the blue square. These competencies could very well include not only traditional project management ones, but also emotional intelligence and authentic leadership. The constantly referred to process of goals to outcomes to deliverable activities project plan can be seen clearly embeded both the three cycle process and the logical framework steps within this graphic.

Figure 5.29 Full View of Overall Organisation to Programme to Project Cycle Management Process
This step by step process in each cycle and integration as set out in Figure 5.29 proved very valuable in overview and for those at a high level to understand and work to, and to set process, policy and governance to. At the same time, however, it proved possibly too much information for those at the project level or working in the field work. What evolved there was the need to keep steps simple, focussed and not too complicated or with possibly too much perspective. As such, in order to get ‘buy-in’ at the working level, the steps were made clear and the key aspects of how to meaningfully and effectively identify and engage with key stakeholders, resolve the outcomes to achieve the programme or organisation objective from their “point of view” and then to plan the activities and address the risks to these were recognised. Again, the synergy and alignment of the project to programme management and the action to research dual working cycles came through. The ongoing and increasingly validating resolution of these becoming the same key steps was apparent.

**Provide workable processes to Community in practice for implementation**

These processes proved very workable in practice as long as people understood the main steps and why they needed to be applied. There is nothing that difficult about these processes. They can be, and were, set out one step at a time with clear reasons and descriptions of how to do each one.

What was realised here was that the success of these otherwise key steps was simply dependent on how much emphasis the organisation the people were working with put on them. This realisation again touches on the need for authentic leadership and engagement of project management in an empathetic way as well as in the traditional technical way.

What was realised eventually, with all of this work and the processes to be enacted, understood and followed, was that it was really a matter for the organisation to understand its importance and to see if it suited or worked with their values and
direction. This need for understanding, value and support also challenges
organisations traditional view of leadership and the need for the engagement of
emotional intelligence as well as managerial and technical. The times these
processes did not work were, in reality, when the organisation did not take due steps
in giving them priority over other demands or politics. Otherwise they were
eminently workable and understandable.

The final realisation was that when our project practice and organisation was
allowed to work these processes without confusion and together with the key
community engagement people with authentic leadership and empathy, it worked
very well, to the point of the director of the recovery authority describing this
stakeholder engagement and scope resolution process for over 100 reconstruction
projects as a “well oiled machine”.

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5.4.2 Test / Validate / Update Methods / Methodology / AR / PM process

As noted earlier, the stakeholder engagement process is one of the least used, but
most needed, in traditional project management. Our study so far on the
antecedents to effective project success also raises the essential place of this
engagement for these projects. It is probably one of the most important lessons of
this thesis – the necessity for effective stakeholder engagement. Effective
stakeholder engagement is not a quick fix. It is quite a process – to engage
stakeholders in a way that brings out what is needed for the project success, but
does not leave them without adequate representation, understanding and appropriate outcomes through the engagement.

What typically happens in these situations, is that there is some nominal interchange through the project scoping, but it may never really be resolved as to who in the community is, in fact, representing what interests and whether they truly represent the best interests of that community or group to be served. At its worst in post tsunami Aceh in several communities, and in several places, those purporting to represent the community many times were not. At its best this meant that, in most people's experience there was, therefore, some disengagement or misrepresentation and loss of appropriate outcomes which was especially wasteful of scarce resources and time. At its worst, this may have led to corruption, standover tactics and, often times, community and agency upset, loss of face and compromised outcomes by not only the community, but also the donor, the agency and the government.

These issues are not that easily worked through for the average project person. The PDRM gives little focus or process to this and most mainstream project management methods seem to underplay or underestimate this stakeholder need and engagement process as well. As previously noted, this is most surprising given that the definition of project success is, generally, now agreed as being that of stakeholder satisfaction with the project outcomes.

The PMBOK presently gives little process here. It is also surprising that to do a word search with the PMBOK for the word ‘value’ (thinking in respect of stakeholder value or value of outcomes) that the word is more a reference to the values in a system or mathematical sense rather than for the process of the project management method.

It is very important that the stakeholder engagement process is one which addresses who are the most appropriate to represent, who is likely to be in alignment with the goals of the project, who may be in conflict, who carries the power or may be better
Figure 5.30 Stakeholder Engagement Cycle (source Victorian Gov.)

to represent and who has the greatest need. In this light there are several processes or methods to engage stakeholders appropriately. Most NGO, UN, EU, Aid Agencies and governments do have manuals and methods for reference and the key aspects are seen as the points headed in the following Table 5.4. The following stakeholder engagement cycle illustrated in Figure 5.30 is from the Victorian State Government in Australia.

However, it was found, again, that very detailed methods or diagrams were not necessarily followed a lot. That, in the necessary context and test of sense-making and workability, and given the average skills of those persons needing to be in the field and with the stakeholders to resolve these matters, simple and straightforward step by step processes are best, and when engaged with authentic leadership.
In that light we found that the following simpler stakeholder engagement table (see Table 5.4) worked much better than the detailed full information cycle. These lessons also carried through in all of the project matters we put into action, test, practice and validation over the whole year of the post bushfire recovery and also before that in research post disasters generally. In that respect some of the simpler tables and forms that proved most useful or workable are derived from this table.

**Table 5.4 Effective Stakeholder Engagement table used to help people work through and realise the key issues**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Stakeholders</th>
<th>Needs / Credibility</th>
<th>Interest / Alignment</th>
<th>Power / Conflict</th>
<th>Commitment</th>
<th>Communication Plans</th>
</tr>
</thead>
</table>

5.4.2.1. **Smart Project Goal Outcomes**

The value of the process of goals being statements of aim or objectives and achieved by a set of outcomes and outputs being “deliverables”, which when delivered together through a programme achieve value through an outcome or project, was addressed earlier in this chapter. This value in its simpler, but more effective, resolution (of what otherwise might be quite imponderable to the average user, or project person at the field or engagement level) became very obvious in this last year of work in those methods to outcomes being understandable and workable to those who wanted it. This experience is also very relevant to our subsequent aim outlined in Chapter 4 and related to Cooke-Davies’ third point for future research also summed in Chapter 4 and that was

> ‘An effective means of ‘learning from experience’ on projects, that combines explicit knowledge with tacit knowledge in a way that encourages people to learn and to embed that learning into continuous improvement of project management processes and practices.’ (Cooke-Davies, 2002; p189)

Learning from experience on projects is fundamentally how most people begin to understand and then better work and make sense of project management and its
necessary antecedents. If you were to give the PMBOK or other guides to a person who did not have experience in project management, they would quickly get lost and possibly learn incorrectly. To enable people to learn project management and also how to enable it within a context and environment, it has proven necessary to guide them by action or ‘doing’ in that way. This is also how tacit learning can be passed on to some extent. The methods, frames and support processes by both systems and experienced people that were shown in the early part of this Chapter in reference to how our project practice passes on its learning remain effective because they are embedded in learning through practice.

The constant working through the cycles reinforces learning and understanding as set out in Figure 5.29 in the blue square with competencies improving from that framed by communication, targets, monitoring and evaluation. This also aligns with our aim in this cycle to test and update PM process improvement set out in Chapter 1.

The other simple, but very effective, lessons that came to the fore in this action cycle review were the point of realising how to triangulate the traditionally developed work breakdown structure using the logic of objectives to outcomes and outputs. This is best illustrated through Figure 5.31 – the goal to outcome and output example of a traditional project management work breakdown structure.
Figure 5.31 Working Example of Typical WBS Triangulated Through Logic of Outputs to Outcomes to Objective Impact

What proved a very good discipline here to understand is that for each outcome there is a set of outputs which can be agreed to define that outcome. Then the overall objective is defined by a set of outcomes each having their set of outputs to clearly scope and define them – all to be agreed by the key stakeholders. This is quite a robust way to resolve these definitions which, otherwise, are mostly left to chance and the skill or otherwise of the project manager or facilitator. This more rigorous process also brings more measure into the evaluation of the outcomes in that it gives much more capability for checking and therefore more rigorous outcome validation.

Quite often the work breakdown structure is progressively changed and developed as the project or programme proceeds. This often leads to unrecognised scope creep
or significant changes in frame, without tracking, that then lead to all sorts of other breakdowns in both the planning and implementation of action and with consequent diminishing value. This potential loss of rigour or triangulation through the outputs and outcomes can, and too often does, lead to serious disagreement over the understanding of what was intended, or was to be delivered, and consequent loss.

The other serious problem encountered can be instanced by the post tsunami reconstruction in Banda Aceh. A project such as a village set of houses in a particular village was contracted, but the civil infrastructure necessary for those houses to be accessible and properly habitable was not sufficiently progressed at the same time. This was, mostly, a result of the inexperience of the people putting these works into place in such pressured circumstances, but it also resulted from the misunderstanding of the importance of a programme outcome to incorporate the relevant collection of project deliverables to enable the overall outcome working value required to be achieved. If this need for resolution of what combination of projects was necessary to deliver workable value to the overall goal then and this process was tied into governance and standard procedures and was implemented from the outset, then this problem could have been resolved much more effectively.

The other aspect the Banda Aceh experience brought out was the problem of design for local conditions and culture. Without authentic leadership engaging to understand the background and needs of a particular group or geography, even the designs can be compromised. The risk of the old traditional leadership to work to achieve good outcomes in praxis is also brought out in the paper by

“professionals who frequently do not see widely or deeply enough in the designs they produce, and ignore issues such as environmental and cultural”.(Toor and Ofori, 2008; p620)

So the realisation here is that we need both robust and effective project planning but also authentic leadership or people enacting empathy and trust or emotional intelligence as well.
The dual main risk of planning and implementation can be significantly better addressed by these logical improvements to defining projects and their necessary structuring into outcomes that will work effectively together to provide the overall goal for that programme. It is amazing how many times these essential considerations are not properly resolved at the outset and simply because no one understood the process by which this can be effectively and rigorously formed and agreed with the key people – with or without project experts.

This can be further detailed in Table 5.5 below where the outputs to inputs of activities (and contingencies) are outlined in a visual work break down structure which becomes much easier for anyone to check whether all that is needed to achieve each outcome is able to be delivered by each set of outputs.

Outputs are delivered through a series of activities and contingencies for risk in a feasible project plan. Here we found that we could define and align the project objective or goal by the set of outcomes (or programme) which would achieve that and then, for each outcome, define the outputs or deliverables and the activities that will achieve them. The traditional LogFrame has these keys running vertically with criteria and assumptions to risks, but we found that people could address the resolving of these four keys if we framed them horizontally as illustrated below. This horizontal alignment for each outcome and its full outputs becomes significantly easier for people to visually check, discuss and resolve and is illustrated in Table 5.5. It was found, ongoing, that these simple, more effective, triangulation methods saved significant time, resource and misunderstanding. The better use of them also led to more people being able to work them with less qualification to resolve what otherwise could not be.
These instances are only part of the extensive work done in this last year in the Victorian Post Disaster Recovery and Reconstruction in both research and reflective practice resolution and validation. So extensive is it that if it were all to be included here the thesis would go well over the content requirements of a PhD.

This, again, is in the light of the validation for the original objective of this research and that is for the best understanding of the antecedents to PM best practice having been carried out and nearly completed prior to the bushfire response. The results from that may be considered additional to that which is necessary for the requirements of this thesis, but are nevertheless very valuable in practice.

What these situations did enable, quite valuably, was the research and development of testing / validating / updating of methods / methodology in action research and
project management process improvement through, and within, communities in practice. A part of this thesis was supported by a grant from the PMI Research Group. Their interest is as a follow on to this thesis and that is a handbook of findings, methodology and methods for better practice in these areas. Those extensions on this thesis will be better exemplified in the relevant practical setting of those publications, and there are outputs and outcomes for this to be taken forward too.

**Review - Test / Validate / Update Methods / Methodology / AR / PM process improvement through work in communities in practice**

The more we worked these simpler ways of stepping through the workable processes outlined in this section, the more it became clear that people could understand what we were working through as long as they were given, and took, the time to see how to do it. As the old saying goes, ‘none of this is rocket science’ and none of the people we were working with were rocket scientists. What is possibly most interesting, in respect of project management in general, is that it is increasingly being used by less qualified people than a qualified PMP (PMI Qualification - Project Management Professional) and for most project management to work these days it needs to be driven not only by the professionals, but also by the average office or field worker, especially in these projects we are fundamentally researching here.

For those vast range of people who now work with project management, or will need to in these areas, to understand and find it workable it needs to be fundamentally useable and understandable in an everyday fashion. To make this point even more importantly understood, once you range out into the more remote regions of Indonesia or any non industrialised area (or even in some industrialised areas) the people’s experience in these uses becomes more challenging, but is still able to be resolved.
That resolution comes through the major focuses of this research and the paradigm considerations, the methodology possibilities and the ways and means to achieve understanding, working and validation regardless of the context and environment. PMP’s indeed do not grow on trees and there are nowhere near enough to cover all this work in these areas needing project management and its better antecedents to be in place. Even if there were, it is unlikely that many of them would want to go to the risk and extremes that these regions may possible present to them. Therefore we must come face to face with the reality that for project management to work one of its necessary antecedents is that it will be understandable and workable in the country, culture and ways of the context and the environment within which it is needed to be so.

Hence the reader of this thesis may now understand why such analyses were worked in such depth in respect of the philosophy, paradigm and related methodology outline in Chapter 4, which may necessarily need to be worked through to enable such universal resolutions and solutions.

The reader may now also understand why such basic approaches and the use of colours for meaning, the use of the simplest, most robust, step by step cycles and methods were worked through to fulfilment in such a range of environments and contexts. When we, in fact, test for internal and external validity as will be done in the following Chapter 6, we are working at something possible very few have before. The internal part is relatively straightforward. The external validity needs to externalise on a whole range of cultures, places and people. This is why we have repeated the reference to plan, do, review and reflect cycle over many different contexts and tests. This is why we have visited the yin and yang and cultural belief systems of the world’s leadership, religions and more. We have, of necessity, needed to dig very deep and often deeper than our professor and supervisor might ever have been taken to before.

Having worked initially in the slums of Calcutta in 1973 and further afield, having worked for 3 years in the post cyclone reconstruction of Darwin (where my eldest son was born when they were still putting the roof on the hospital) and resource was
very thin on the ground, having worked in post disasters including extended assignments in Aceh, Nias and the Mentawai Islands in Indonesia and then in my home state of Victoria. I have no doubt that these matters are able to be worked through and understood by all range of people, as long as they are framed for that context, and I have no doubt that the average person has more potential using the more straight forward method than the average method from our traditional publications.

An additional problem is that the methods which eventually were found to work here were found through action research and critical pragmatic paradigms which the average linear thinker in the traditional project management research world here simply does not necessarily have experience, knowledge and indeed sufficient context to work through.

That realisation of the need for the understanding of the demands on project management in these more challenging environments could also affect peoples’ ability to work more effectively in context. However, it is very workable and these methods now to be summarised can be made sense of by most people given the right understanding, frames, authentic leadership and robust methods.

With all that in view, the following reviews were arrived at, and are consistent with, the previous tabling and methodology as set out in the close of Chapter 4. The positive outcomes of these, regardless, were the use by the community in practice, the practitioners and those with either need or experience in this field.

Given all of the above, our work in the reconstruction and recovery work, in reflective practice and action research and with all the methods developed through practice and with communities in practice, we did arrive at very positive, workable and understandable outcomes, validation and impact. The table below evaluates and updates that work accordingly.

<table>
<thead>
<tr>
<th>Knowledge Understanding</th>
<th>Sense-making</th>
<th>Practice Workability</th>
<th>Community Internal / External Valid</th>
<th>Outcome</th>
</tr>
</thead>
</table>

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5.4.3 Summarise Findings / AR to PM Methodology – Synthesis, Enduring Models

In a very positive light though, and with 40 years experience in practice, with great respect for both theory and action, again needing to be worked through rigorously through the ongoing improving cycles of action and research it was found that the PhD process is a fundamentally very sound and triangulating one. It was found, eventually through repeating cycles of action and research, theory and practice, leadership and implementation, to be consolidating the resolutions, the research, the outcomes and their impact. I did regain good faith and then, finally, strong confidence in the ways of practical research.

The understanding that was gained through these methods which were considerably more sensible to those working in these places was both very strong and very telling. This also can be evidenced by that fact that, initially, this practice was engaged in the bushfire recovery ‘pro bono’ for the first six months. At the end of that time the Victorian Bushfire Reconstruction and Recovery Authority were very keen to keep this practice working for them and their respective communities so they extended that engagement on a commissioned retainer for the next 6 months and then again for a further six months.

At the time of the final writing of this thesis, my practice and key people within it, are still engaged there.

This ongoing re-engagement and stated satisfaction was also a strong form of validation of each aspect of this work in practice applied in both the review of action and research in. This showed solid understanding and making sense, practice and workability, community engaging internal and external validity and then the objective impact on the overall objective in reality. It was clear that the methods evidenced here worked effectively in these and earlier environments, were understandable, workable and they certainly were taken from other internal lessons and worked further to achieve external validation.
The reviewed impact on the objectives was substantial, so the action research review table below reflects that in respect of the key value adding of these processes and understandings – both antecedent and project management.

<table>
<thead>
<tr>
<th>Knowledge Understanding</th>
<th>Practice Workability</th>
<th>Community Internal / External Valid</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sense-making</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 – Very effective</td>
<td>4 – Very effective</td>
<td>4 – Effective</td>
<td>4 – Effective Impact &amp; value</td>
</tr>
<tr>
<td>sense-making</td>
<td>workability</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reflect Upon Summarised Findings / AR to PM Methodology – Synthesis, Enduring Models, Synergies and Realisations – Working

The testing of these models, processes and key factor summaries over the full year of the critical bushfire recovery and reconstruction in Victoria enabled an extensive amount of extra evaluation and validation work to be done, additional to the previous two research cycles. We wanted to leave nothing to chance and at the same time take up the opportunity in our own communities and practice to firmly ground and resolve all that we had found leading up to that, and then in the third validation research cycle. It was also an opportunity to further test internal to external validation and the full extent of action research rigour over extended action and research cycles.

The key outcome of this was that the developed methodology is actually effective and simple and as long as the key steps and understandings were advised and respected they do work and very effectively. This also needs to include authentic leadership as outlined a number of times earlier in this thesis.

The challenge, then, is how those people or groups that it may be best suited to, can pass on these understandings, methods and realisation in practice.

I have summarised, through and following the enduring models replicated below, the key steps leading into any new intervention, programme / project in general
below an enduring skeletal model of it all. It does come out quite simply after all – it all eventually leads to practical project management, in frame, delivering value within programmes for key stakeholder groups, but it gives much safer front end resolution to the development of the best projects for the best value outcomes.

There is more detail that is to be provided outside of the content provisions of a PhD thesis, of course, but this is worked to enable understanding and practical application within the confines of this research and its objectives. The following process diagrams work to effectively resolve a situation analysis and then, through the series of questions of what, why, who and how (set out in more detail previously) to collectively arrive at feasible outcomes or programmes developed on the planning and implementations of actions to deliver those.

What became very clear through all of these engagements was that the methods needed to be simple, but rigorous, and get to the key issues of goals, stakeholder engagement, understandable method and outcome. Feasible project planning and action reviews needed to be engaged consistently, but be workable with local resources and communities and, at the same time, be able to be integrated into effective programme management processes for central office planning and control and with authentic leadership. What is even more reinforcing is that this statement is also very consistent with the summary of the needs of the rich pictures in research cycle 2.

These requirements were also achieved and to the stated satisfaction of those involved in this third research cycle.
The enduring models of how this would be understood, made workable, be accepted by communities and have a positive and significant impact on the overall goals of the organisation and the key stakeholders was arrived at in the following process summary. This can be applied in an action research process, where appropriate, for groups or practitioners needing to resolve the keys to their rapid response and resolution, or for programmes to projects to enable understanding, effective practice and community take up. The model illustrated in Figure 5.32 is the one arrived at in response to the aim of enabling the AR to PM Methodology – Synthesis action review, where people close to the project can bridge identified gaps in PM practice including, but not limited to, aid / relief projects.

This process has a striking synergy and similarity to the necessary antecedent to project management practice skeletal cycle that evolved and is shown in Figure 5.33. Communication is, of course, one of the keys to success in these, or any, environments. To make sense of the process and for factors to be successfully engaged, the
stakeholder outcomes need to be readily understood and effectively followed. The extensive research undertaken in this thesis over the last three years, and more leading up to that, arrived at the following process as the best take up understood and worked to.

In the early intervention, and where an action research approach is seen as the best way to obviate the gaps and responses from which the programme for recovery then can be worked we found the method illustrated in Figure 5.32 is the one most workable in action planning to outputs and outcomes for all range of people in all range of experience and practice. We need to remain mindful that the vast majority of project management enactment is actually achieved in practice in the field in these and a whole range of growing environments by non professional project people. We need to communicate with them in simple effective and understandable ways.

There is a significant similarity between the two methods, but it was found that the programme to project process was more readily worked to by those with that sort of experience while the action research skeleton method was significantly more readily taken up by practitioners who were not experienced in or comfortable with, project management. Nevertheless whichever model is best, and that will be further reviewed and reflected upon in the following chapters, authentic leadership is seen as needed regardless.

The synergy of the final resolved cycles in the overall action and research is very compelling. This has been applied in a range of environments and through a range of organisations. This can be further detailed in whichever way is deemed best.

It is both practical and supportable.

The following sequence is the one that is contained within the enabing and enduring model. It can be summarised under key headings and then in the process both within and connected between the two respective cycles (programme to project)
5.4.3.1 Situation analysis to programme development key question and answer process outline

What are the intended objective or goals of the overall intervention and how may their impact be assessed?

What is the real situation framing this intended intervention? (What is the environment within which this situation is to be resolved? What key groups will be involved here? What are their key values / criteria for success? What are the key outcomes in focus here and are they feasible and agreed?

Why do this? Does this fit within the organisations overall vision / mission / values / key criteria / authentic leadership / competence?

Who are the key stakeholders? Of them who will be critical, aligned, committed, driving, conflicting and are their values addressed in the outcomes to be resolved?

How can key programme outcomes be resolved and achieved with them and are they feasible and supportable? How can the project deliverables / outputs / inputs / activities deliver the necessary value to the outcomes to enable the overall objectives / impact? (Do they align with the organisation criteria for success?)

Through these steps a project plan to deliver programme outcomes to appropriate values can be resolved and agreed. Then the two cycle process can be used to regularly review project management progress and then, on a less regular basis, the programme cycle to evaluate the delivery of outcomes and their value to, and impact on the overall objective and real problems in the real situation, and with due respect for the values and stakeholder environment.

The project management at work here is how it may have been done in the past, but now with more identification of the outcomes and deliverables (and in turn from that the key value identification part for the best selection of projects / outcomes / objectives.
5.5 Summary of Chapter 5

Chapter 5 covered an enormous amount of research, action in the field and the reflection of that in both evaluation and validation. The findings from these were extensive and previously unrealised and unexpected by almost everyone involved. This clearly led to a much greater understanding of both the necessary antecedents to PM and its best practice in that light.

The extent of the data and the review of the actions leading to each outcome and their possible value, knowledge and their application in practice through synergies and improvements of a range of existing practices did, indeed, generate considerably more understanding than possibly expected. This applied at a personal, professional, community and range of ‘communities of practice’ level and with even greater potential for wider practice and communities around the world.

There is significantly more to this thesis and its eventual outcomes than is presented here. In fact, this work seems to have needed to address and resolve considerably more territory, both in its literature and general practice review and thus its epistemological and methodological frames, than ever anticipated by those who proposed and supported it in the first place.

This harsh reality then presented me, the researcher and author here, and also my supervisors, with the problem of how far one needed to go to, to resolve such complex, but pressing, research problems and arrive at satisfactory, rigorous and validating outcomes. That challenge was then added to by exactly the same risk that this thesis was to address – the environment in which we live and enact our daily projects.

It was never foreseen that I, as reflective practitioner, research and writer, would be faced with testing all this work in the country and state of my birth and majority professional development. But, such is chance that, after working far and wide in both the lead up to and the primary stages of this research, we would then be taken to test it all out in the greatest disaster this home state had suffered in our history.
Together with people and communities I am familiar with, as close as family, we still needed professional and effective, or is that best, practice to work it home over a very wide group of projects and with a diverse group of people and communities. We also need authentic leadership and social as well as technical programme and project management to enable that effectively through a vast range of communities of practice.

The key findings, understandings and outcomes from this extensive action research and programme to project management reflective practice are summarised and set out in Chapter 6 to follow.
Chapter 6 – Review and Reflect Upon Outcomes, Findings

There are two ways of spreading light: to be the candle or the mirror that reflects it.”

Edith Wharton

6.1 Reflection

We arrived at key evaluation and validation criteria in the summary of chapter 4. In Chapter 5 we reviewed the case studies, research data and progressive action and research cycles in a single and double loop cyclical review process, focussing on outcomes from research action and their effect on understanding and practice.

We did this within the context and environment of post earthquake and post tsunami Asia, post bushfire and, before that, post cyclone Australia in particular interventions though project management, project evaluation, action research and organisational challenge over the past 40 years.

This was all done through a methodology that is supported by significant philosophy, methodology, practice and practical action research over that same, and sometimes significantly longer, period.
We are now going to reflect upon, evaluate and validate our findings where appropriate. The breadth of this research, and its necessary encompassing of several worldviews and cultures, makes for a lot of income in terms of information, review, research, practice and practical and community outcome realisation. It is important to have a firm and consistent frame in method and rigour here, to focus on what is the key and not spend too much time in final write up on what is not significant in itself for the objective impact assessment we are now to work through.

In this respect we arrived at the following model Figure 6.1 for research evaluation, review and validation.

![Figure 6.1 Research Validity Model](image)

**6.2. 1st Research Cycle - PM / Antecedents – Findings & Evaluation**

We did reflect upon this in Chapter 5 and found that there was good gain and grounding of knowledge achieved through this set of actions, and it was more preparatory or formative than having value in itself. The literature review was extensive and it revealed some very good understandings and insights, but also exposed the paucity of academic literature, in particular with respect to aid / relief project management’ log frame and effective research.
Table 6.1 below collects the relative value of each action cycle in respect of the 4 criteria outlined in Chapters 4 and 5. (The colours follow the same order and legend as related in Chapter 5).

Table 6.1 Relative value collection of each action cycle within research cycle 1.

<table>
<thead>
<tr>
<th>Review</th>
<th>Understanding</th>
<th>Practice</th>
<th>Community</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Summary Critical success Factors</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Understanding and synthesising the methods</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1.3 Realising &amp; Summarising the Importance of Context</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1.4 Summary Keys and Methods to Antecedents PM</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

There was both a summary and project management success and a broad development of the understanding of their antecedents, but it was not neither validated nor working effectively. It was very good preparation for the next research cycle and effectively formed an extensive literature and reflective practice review. It enabled a very deep understanding of the theory and practice of the relevant PM bodies of knowledge, the epistemology, and of the range of project cycle management monitoring and evaluation methodology. It also enabled the synergising of the appropriate front end and antecedent programme to project management understandings.

Further, there was also good ground gained in the integration or synthesising of the log frame, traditional project management and action research methods forward.
While none of this was significant in itself it was certainly very helpful and preparative for what turned out to be the most important stage and outcome and that was stage 2. Similarly for the finding of the antecedent or front end factors likely affecting the full findings, but not standing of themselves.

So the first phase of this research cycle was not workable knowledge gain in itself. It did not achieve understanding because on the basis of that knowledge alone it was not seen how to frame, method and apply the knowledge and show understanding of that knowledge in isolation. These first stage findings were presented to a number of conferences and whilst they got good interest and follow up they did not obviously resonate in people’s application and there was not sufficient validation in itself of the understanding of those processes and knowledge gains. The primary value of this first stage was through the framing of the point of views, worldviews, methodologies, synergies to actually set the scope for the key stage 2 interventions.

The methodologies and methods were not resolved sufficiently in themselves to be of value immediately for understanding in practice and neither was there found anything in present combination that could be used to address the antecedents to project management best practice in general. This was quite an outcome in itself for it was initially expected that this research or working may have already been addressed. These results are reflected upon in summary in Table 6.2.

*Table 6.2 Summary evaluation of research cycle 1 - PM success / best practice & antecedents*

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Evaluation</th>
<th>Relative Weighting</th>
<th>Knowledge</th>
<th>Understanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making sense</td>
<td><em>It began to make sense to me but it was not obvious it made sense to many others in a provable way</em></td>
<td><em>3 – because it very much helped the way</em></td>
<td>Gain in personal knowledge but not yet shared</td>
<td>Moderate gain in understanding but not yet able to be applied in practice</td>
</tr>
</tbody>
</table>
There was however, the realisation that an existing useable / workable epistemology for project management success / best practice was the PMBOK and the epistemology for project success was the project evaluation / PCM to LFA. It was also seen that the best frame in which to view these together was the methodology / epistemology of action research and within that meta-frame, SSM, for the robust engagement in the post disaster to be undertaken

The development and understanding of these frames was mostly a preparation and summative evaluation for the significantly more formative lessons to be learned
from the aid / relief research cycle worked through, and with a large number of active practitioners in the field, in post tsunami project and programme management. Both the literature and my own experience were not built on this focus in project management predominately over the last 40 years – the rapid change and antecedent understanding needed a wider palette on which to reflect. That palette was surprisingly rich in the aid / relief world and whilst it presented significant challenge it also had the potential to offer significant insights.

6.3. 2nd Research Cycle – SSM - Findings and Evaluation

This next stage of the research cycles required the most preparation, input, and resilience, and was one of the most difficult undertakings I had ever had to address in all my 40 years, in both hard and soft practice, and over a wide range of very demanding projects. But it was eventually worth it and table 6.3 reflects such.

Table 6.3 - Relative value collection of each action cycle within research cycle 2.

<table>
<thead>
<tr>
<th>Review</th>
<th>Understanding</th>
<th>Practice</th>
<th>Community</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 SSM / Rich Pictures from Post Disaster PM</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2.2 Peer Review of Key Findings / Validation</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>2.3 Summary Findings, Antecedents, Method</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 6.4 then summarises the reflection in evaluation of these improvements

*Table 6.4 Summary evaluation of research cycle 2 - PM success / best practice & antecedents- aid relief projects*
The outcomes from these interventions were realised as significant and with even greater potential. They were unexpectedly useful, acceptable, realisable and responded to by a wide range of practitioners, both in the field of aid / relief projects and in project, programme and organisation management in general.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Evaluation</th>
<th>Relative Weighting</th>
<th>Knowledge</th>
<th>Understanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making sense</td>
<td>It clearly made sense to a whole range of relevant and experienced practitioners – in the aid / relief context and other more commercial / governmental and industrial contexts</td>
<td>4 – because it reflected so very well upon and validated</td>
<td>Very significant gain in knowledge at a personal, group, organisational, community of practice level.</td>
<td>Good understanding achieved through a diverse but relevant set of communities of practice</td>
</tr>
<tr>
<td>Workable</td>
<td>Yes it was validated by a range of very experience practitioners in practice and</td>
<td>3.6 – it was applied and accepted</td>
<td>Good knowledge gain</td>
<td>Good understanding at community of practice and professional project manager levels</td>
</tr>
<tr>
<td>Internal &amp; External</td>
<td>It was resolved in the original context and then accepted and added to in several others</td>
<td>3.6 - one environment to the other</td>
<td>Good knowledge gain in the learning from one community of practice and passing on and validation by another</td>
<td>Reasonable understanding from one community o practice and being able to be understood and confirmed as such by a very different one.</td>
</tr>
<tr>
<td>Objective impact</td>
<td>This second stage had obvious and accepted impact on the overall research objective</td>
<td>3 – achieved the objective</td>
<td>reasonable</td>
<td>reasonable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Evaluation</th>
<th>Relative Weighting</th>
<th>Knowledge</th>
<th>Understanding</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Objective impact</td>
<td>This second stage had obvious and accepted impact on the overall research objective</td>
<td>3 – achieved the objective</td>
<td>reasonable</td>
<td>reasonable</td>
</tr>
</tbody>
</table>
Again the key tests of pragmatic action research and are both sense-making and workability. These were tested at every cycle and evaluated for sense-making (Sankaran, 2007, Weick, 1988, Johansson and Lindhult, 2008, McKay and Marshall, 2001, Gustavsen, 2008, Hughes et al., 2004, Lau, 1999, Shalin, 1992, Kriger and Seng, 2005) in the extended engagement of this research over, particularly, the last two research cycles, the first through a wide range of practice and practitioner review and reflection and the third over an extended set of engagements to test and prove up particular models and methodologies within the already validated frames.

6.4 3rd Research Cycle Results – Outcomes - Findings and Evaluation

Through the third research cycle the process improvement that developed from this was both continually improved upon through the sense-making, testing for workability (both key action research and pragmatic validation) and also through extended rigorous testing in practice through ongoing action cycles.

Table 6.5 - Relative value collection of each action cycle within research cycle 3.

<table>
<thead>
<tr>
<th>Review</th>
<th>Understanding</th>
<th>Practice</th>
<th>Community</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Provide workable processes</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>3.2 Test / Validate / Update</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>3.3 Summarise Findings / AR to</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>PM Methodology Validate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This further enabled an ongoing evaluation of the value of progressive outcome and methodological updates. The end result of this was the evaluation of practice and knowledge outcomes and the combination of these to validate understanding of antecedents and the project reflective practice.
Table 6.6 Summary evaluation of research cycle 3. Provide PM process improvement and how people close to the project can bridge identified gaps in PM practice including, but not limited to, aid / relief projects.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Evaluation</th>
<th>Relative Weighting</th>
<th>Knowledge</th>
<th>Understanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making sense</td>
<td>Whilst already validated it was valuable to further test understanding over an extended range of programmes and projects and in a different environment again to that of the preceding research</td>
<td>4.3 – Proved more extensively and was more effective than foreseen</td>
<td>Knowledge mostly consolidated in cycle 2 but further validated and improved upon in this final cycle</td>
<td>Understanding greatly improved upon in this final and extended research cycle.</td>
</tr>
<tr>
<td>Workable</td>
<td>Whilst already validated it was very valuable to a seasoned practitioner to apply over a further extended range and in a more direct context</td>
<td>4 – Very effectively proven in practice and with communities</td>
<td>Knowledge of process and making more effective and useable by average worker really improved and validated.</td>
<td>Significantly improved understanding in how to enable it to work with a whole range of projects, people, communities and practice</td>
</tr>
<tr>
<td>Internal &amp; External</td>
<td>It was resolved and taken to a great extent in communities and practice in further contexts and at a range of levels and points of view</td>
<td>4 – All really worked through and resolved</td>
<td>Significant gain in validation and knowledge in the extending of internal learning form one environment to the next</td>
<td>Significantly improved validation and understanding in applying, testing and improving models in practice over an extended time and place</td>
</tr>
<tr>
<td>Objective impact</td>
<td>This proved up significant impact and understanding – (the challenge now is how to carry it forward to realize the overall impact it could have in the environment and several contexts</td>
<td>3.6 – Solid impact, but there is still a lot for it to be taken to and research to build on.</td>
<td>Validating knowledge by the practice outcomes and findings and improvements. Validation enabled through the extended</td>
<td>Real understanding gained by key project people at a range of levels and practice. The objectives impacted better than ever expected and the importance</td>
</tr>
</tbody>
</table>
The importance of the second research cycle can be seen through the mapping of the value of the four key criteria through each research cycle as illustrated in Figure 6.2 below across the three research cycles in this thesis as also illustrated below. As my supervisor also then observed, this also formed an effective map of convergence and an indicator of reaching saturation in an innovative way, in his view.

![Figure 6.2 Relative value and research validity mapping](image)

This categorisation of antecedents to best PM practice will now be given form through Table 6.7 which presents examples of what action may trigger PM best practice so that the ‘what needs to be done’ question is addressed.
<table>
<thead>
<tr>
<th>Antecedent issue</th>
<th>Summarised example of how antecedents to PM Best Practice were and actioned and realised through</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contextual i.e. Environment, culture, power balance</td>
<td>Summarising in a simple but effective universal framework, contextually appropriate project methods for application in any environment. Providing a significantly improved understanding of the necessary PM work needed at the front end of projects in general. Identifying the necessary effective PM practices in any environment and how they may work in all range of projects. Acknowledging core value and synergies in each of the PM body of knowledge methods employed around the world for traditional PM work and knowing what simple, robust and effective methods and elements to apply</td>
</tr>
<tr>
<td>Skills and Competencies i.e. Hard skills Soft skills Competencies</td>
<td>Facilitating an improvement in the way projects are understood, approached, planned and managed. Gaining significant knowledge at a personal, group, organisational, community of practice level of what constitutes PM practice. Gaining a good understanding of PM Best practice at community of practice and professional project manager levels. Significantly improving understanding and applying validation and testing of how to improve models in practice (organisational learning).</td>
</tr>
<tr>
<td>Support i.e. Frameworks, templates, resources</td>
<td>Providing a sound and demonstrated example of PM process improvement and how, perhaps through an action learning approach, people close to these projects can develop their own self-help approaches to bridge identified gaps. Providing a template of an approach that others in a similar predicament can follow to identify and address gaps or absences in best PM practice Achieving a good understanding of PM best practices through facilitating the development of a diverse but relevant set of communities of practice Gaining significant validation and knowledge of how to extend internal learning form one environment to the next Validating knowledge by the practice outcomes and findings and improvements enabled through the extended application, testing and acceptance of proven models in practice.</td>
</tr>
<tr>
<td>Attitudes i.e. Leadership learning praxis</td>
<td>Focusing, simplifying and clarifying action research and project management process in everyday project practice Realising the benefit of praxis to everyday and community projects and PM in general and having a propensity for developing emotional intelligence. Having an open mind and seeking to challenge current approaches in order to improvements. Having integrity and the drive to engage in continuous improvement.</td>
</tr>
</tbody>
</table>
6.5 Enduring keys of action research cycles

The PM process improvement which worked to enable this was the simplified two cycle programme to project cycle process brought out in Chapter 5 and shown below in Figure 6.3. The key synergies that emerged between action research and project management process and, indeed, the rigour of the repeating, interlinked and dependent cycles of action and reflection ongoing through the life of the project are the enduring keys of these methods and models.

The constant cycle of monitoring of deliverables and evaluation of outcomes enabled through both action research and project management is a key realisation of this research and has been structured in this method. This is born out by the enduring models that emerge from it and are related to the model of the overall organisation of this thesis and its chapters framework and the model depicted below in Figure 6.3.

![Figure 6.3 - Core Skeleton Key Antecedent and Project Factors in Simple Stepwise Two Cycle Process – Enduring Models in Research and Practice](image)

The keys to these are similar to, and strongly align with, the enduring key step factors brought out and validated in Chapter 5 research cycles. The process is also
that proven up and simplified from the organisation to programme to project cycles again shown here and in Figure 6.4 and also Figures 5.33 and 5.34, Chapter 5.

Certainly research cycles 2 & 3 validated very similar key steps and methodologies. In research cycle 2, the organisation and programme to project cycles show obvious alignment within themselves and with those of research cycle 3. The action research model of Figure 5.26 of research cycle 2 aligns very strongly with Figure 5.33 of research cycle 3 – as shown in Figure 6.3 above.

It is most interesting to compare the organisation to programme to project cycles of research cycle 2 to the key antecedent and project factors of research cycle 3. The two connected cycles – programme and project management align fully in both research cycles. The only difference between these two model outcomes is the organisation cycle and the point of governance. This aspect not being in the research cycle 3 outcome model is, upon reflection, not surprising. The focussing aspect of the key questions and in this case, in particular, the ‘why do this’ – the key criteria and values – Figure 6.3 has this in the linkage between the programme and the project management as key. This takes governance into the project – programme cycle.

We are also reminded that this research focus is the antecedents to project management practice. It has needed to go far and wide to come back into what really is needed to enable project management best practice and what needs to be in place to enable that. But it needs also to contain its scope to what is feasible and able to be resolved within the limits of a PhD thesis. In that frame and light, it is necessary to understand the strategic organisation that programmes of projects may work within but to realise our limits. So the other value of this last research cycle is also to remind us of exactly what we can do and within our research questions and that we do not need to work too far outside of those.

The point here, and quite an important one, is that there is so much that can be done to enable project management best practice within the limits of project management influence and by resolving the key criteria. This lesson also extends to leadership and other issues. We need focus on what is within the reach or influence
of project management practitioners and not require them to be world leaders or politicians or chief executive officers or company directors.

It is as the old saying goes, ‘give us the grace to change what we can, to accept what we cannot and the wisdom to know the difference’. So with governance or leadership and similar issues or research which can or is taken to companies, governments, worldwide organisations we draw the line at what is directly related to project management in the antecedent aspect. This is both a very challenging scope in itself, but also one we can address with feasible and sustainable outcomes. To go too far on issues that could be bordering on looking to try to solve the problems of the world would be not possible within the resource and support boundaries of this thesis.

It is not unlike the situation analysis which we have been working through in this thesis, in that we need to resolve what is feasible with what scope and for what sustainable outcome. Again in the terms of an old saying ‘we cannot be all things to all people’. Our ontology and scope here is one of the research of project management practice and what needs be in place to enable it to work. At its robust and workable best frame that is the method and frame of Figures 5.32 and 5.33.

In respect of the questions of what, who, why and how that form our situation analysis we also arrive at the core questions as follows:

**Situation analysis**

**What – What is** - the real environment here, the actual state of things?

**What can be** – what is the vision or objective of what may be achieved?

**Who - Who** are the key stakeholders?

**Who has** the priority needs, of them?

**Who will be** critical, aligned, committed, driving, conflicting and are their values addressed in the outcomes to be resolved?
**Why** - Why do this? Does this fit within the organisation's overall vision / values / key criteria / competence? (It is much needed, but so are a lot of projects – we need to be sure it will work within the shared goals of the project)

**How** – How can this be done? – outcomes or programmes that are feasible and suitable, project outputs that will deliver the value to the key criteria for success?

What this group of questions frames better than a thousand words or even a series of rich pictures, is the key scope for each project and programme that may be agreed and committed to with feasible leadership and sustainable outcomes. This is quite an achievement.

The framing of the objective to outcome and outputs in a table which will then robustly guide and enable feasible projects and programmes is again effectively set worked through to table 5.4. We can use this to check off with any of the stakeholders, project people or community in an understandable way what we need for each project, programme and challenging journey.
6.6 Chapter 6 Summary

Our findings offer both immediate application and enormous potential. In realising the synergies of project monitoring and evaluation/LogFrame, traditional project management and action research whilst many may say the resultant system is too good to be true, it is true and, indeed, validated.

The converse or alternative way of reflecting upon this is to address the question of how much could be saved if indeed, people could or may learn how to make it work and as effectively as brought out in practice through this research.

From time to time it is possible that very focussed and hard work, or the course of serendipity in alignment with good method, can realise significant gains not otherwise thought of or ever thought possible.

These resultant simplified and synthesised methods and practices are not of one person’s doing or arrival. They are built of decades, if not millennia, of differently worked methods, practice and research. Possibly the most outstanding aspect to me, the author and researcher, in finally writing this summary is that I am convinced that these findings could not have been achieved without the due rigour and methods and background that research has enabled to this otherwise insignificant practitioner.

The key breakthroughs came through what has already been done, but not brought to bear in combination and in wider application. It is like the old saying that the whole is much more than the sum of the parts, that the body is much more than any of its limbs in isolation. There is another old saying in the construction industry and that is that communication is the toughest part of the business. So anything that markedly improves communication and at the same time saves significant resource and is able to be used by many not otherwise enabled, then this is something to behold and work with.
We have numerous and increasingly complex project management methods, then project front end processes such as programme management, LogFrame, action research and more. But can they communicate with each other and work with each other and do any of them in isolation cover what is needed to integrate and facilitate the antecedents to, and effective application of, project management practice?

How can we realise the best way to bring these vast and differing worlds into one aligned and potentially synergised practice? If we cannot work out how to do that then how will we really be able to address any disaster in any country and have any certainty of resolving its recovery and reconstruction in a co-ordinated and co-operative way? Can we really just work with the disjointed and disagreed methods that so many different organisations within themselves and between themselves cannot seem to resolve?

The steps are fundamental, yet so many seem content to presently proceed without them. They are shown again in the enduring model to review here and now.

For each question there is a frame and set of steps to follow through and resolve.

In overall summary leading into the final chapter of this thesis, we have quite some points of arrival in this work.

We have realised or reflected upon;

- the importance of knowledge to understanding in practice and how to make sense of a situation,

- the importance of understanding of the antecedents of project management best practice to make sense of any project situation, in any environment, and in time to address and resolve it before it is too late,

- the importance of the lessons learned from aid / relief projects to this understanding, given their greater experience in needing to understand and rapidly address these situations with minimum resources and highest risk, but nevertheless sort and resolve them,
• the importance of a robust, but reliable methodology and associated methods to enable these issues to be addressed, understood, processed and satisfactorily dealt with in a feasible and sustainable way,

• the working of these methods to enable a wide range of people, stakeholders, groups, organisations and even governments, to make sense of their own and their communities needs, involvement, scope, plan and actions to become workable and sustainable,

• how to engage these methods and who the right people are to enable the best and most realisable objectives with outcomes delivered by the most valuable outputs and a plan of actions to those,

• how to realise what is the real situation, what are the real needs and what is possible within all that and the resources which may or may not be available and the risks that may visit the project or programme, and how these may be dealt with, regardless,

• how to understand and make sense of the steps that go with each of these methods and in what way and process,

• how we may use very well worked, effective, robust and understandable methodologies, based on decades of action research, that can support these workings and understandings,

• how we can take these from place to place and in different environments and cultures and still communicate, understand and make projects and programmes workable both internally and externally,

• how we can use these processes in the aid / relief worlds as well as the industrial and they have a lot of value in any environment,

We will now proceed to Chapter 7 to address our overall conclusions and recommendations.
Chapter 7 - Evaluate Research Outcomes, Conclusions and Recommendations

“Two roads diverged in a wood, and...I took the road less travelled by, and that has made all the difference.” Robert Frost

7.1 Reflection

This chapter develops a conclusion and recommendations for and from this thesis. A long journey has been traversed to reach such a point of arrival and to be able to effectively and properly conclude and recommend on the understanding of the antecedents to project management best practices and lessons to be learned from aid / relief projects.

We have found that we effectively needed to go to different ends of the earth to learn from others, and unexpectedly but importantly, to realise what was key to any project and its workable environment anywhere. It was a very interesting, but also very demanding journey. Physically, emotionally, intellectually and practically demanding, but with insights from those demands and especially from the amazing people at each stop in the journey. Resilient, resourceful people, people of great capability and intelligence in many different ways. Practical people, academic people, but most of all, project people, wonderful people doing wonderful, unheralded things in previously unheard of areas.
The world of project management is our world and it is an amazing array of resilience and ingenuity. At the same time, it sometimes can be quite a risky place and sometimes devastating in the consequences, we can only do our best to address and recover from, to start improving and rebuilding communities, livelihoods, habitats, towns, villages, cities and all range of environments and places.

What we have learned, first of all, in all this is the predominance of environment, situation and the importance of people being able to respond in their place in their way but with support, understanding and the most workable ways to enable those.

We have found knowledge and understanding in doing this and we have been enabled so much in this through people, who in their everyday lives and projects, show enormous courage, understanding, sense, work, validity and forbearance in continuing to deal with all they have to, in order to survive and, hopefully, thrive.

We cannot help but be impressed, sometimes amazed, sometimes in wonder, sometimes in disappointment and sometimes for better or worse. But we do, indeed, live and learn and we do learn from others greatly and we do learn by doing and all need to think to do what is best, for us and our environment.

So what have we learned that is key, what is of significance and what can be taken forward in a better way?

7.2 Main Research Findings

The outcomes for this research are presented in Table 4.1 in Section 4.4. The research findings directly related to these expected research outcomes are discussed below:

Outcome 1. Summarise project management success / best practice and their antecedents in general practice - can be summarised as below:

1. A clear mission/vision and agreed goals with agreed success criteria and clear understanding of desired and expected values driving the project culture;
2. Key stakeholder/key resource understanding of the goals/objectives with a clear and agreed statement of outcomes defined;
3. Project plan and programme/method of work being resolved and agreed by all key parties, including provision of adequate reserves and contingencies;
4. The feasibility of that plan (in terms of resources, contingencies, risks and outcomes) being resolved and signed off by all key players;
5. Adequate resources being committed for the project based upon detail derived from an achievable project plan;
6. Clearly stated and understood PM capacity, experience and staff/senior manager’s support including project governance, dispute resolution procedures to engender trust behaviours;
7. Adequate communication and project tools;
8. Project competencies and PM skills, adequate and agreed organisation structure; and
9. Integrity, effective communication, commitment, support, team approach, mentoring, and learning.
10. External Influences such as political or cultural awareness and capability.
(Steinfort and Walker, 2007, Steinfort and Walker, 2008)
The importance of the stakeholder engagement process to project success, and as key within the programme antecedents in more traditional use those, questions may be better framed as “What, Why, Who and How” as reviewed in both Chapter 2 on context and Chapter 3 on the literature review previously referred to.
These key questions may, in summary and initially, at least, frame the following context for this research as an example, but also can be applied to any project or programme research or otherwise.

Situation analysis of this research was as follows:

**What** is - the Reality, the Literature and the Practice?

**Why** do this – the Philosophy and Value Criteria which may be applied?

**Who** – are the key stakeholders and with what critical needs?
How to achieve the Outcomes to address these questions and the actions to achieve those pragmatic considerations can also be shown as in figure 7.1 below.

We were faced with the same challenge in this thesis in respect of the question of the how to realise or capture the value of the knowledge gain through a working method of action research (regardless of whether it is pragmatic, critical, positivist, interpretive or any combination thereof or beyond).

**Outcome 2. Realise & validate a significantly improved methodology for the antecedents / necessary front end & PM through lessons learned from aid / relief projects.**

The effectiveness of the methodology for antecedents / necessary front end & PM through lessons learned from aid / relief projects can be realised by following Twelve Critical Success Factors from the Second Research Cycle as presented below:

1. Organisational Purpose / Vision / Values (Impact) to Assess Environment / Risk (Organisation and Programme Cycle)
2. Stakeholder Engagement Culture to Programme Purpose (Outcome) (Programme Cycle)
3. Organisation / Environment Communication Plan to Stakeholder Agreement to Governance Formulation (Organisation Cycle)
4. Stakeholder Communication / Co-operation / Competence / Support / Empathy / Learning / Commitment (Core of Programme Cycle)
5. Programme Plan & Values / Criteria (Indicators) Agreed (Intermediate Results / Objectives / Outputs with Assumptions and Risks) (Programme Cycle)

6. Project Goals / Criteria Agreed (Indicators - Evidence / Means of Verification Agreed) (Project Cycle)

7. Project Manager / Team Communication, Support, Learning, Co-operation, Competence, Commitment (Core of Project Cycle).

8. Project Plan (Activities / Outputs) (Project Cycle).

9. Implement Project Plan(s) / Action / Targets / Contingency / Risk Management (Project Cycle and Organisation Cycle).


12. Assessment / Evaluation (Programme cycle)....... 

And these 12 factors are situated on the three level project programme organisation cycle in Figure 7.2 and are numbered on the cycles within cycles referred to below;

**Figure 7.2  Project Programme Organisation Cycle showing twelve key factor step process**
Outcome 3. Provide PM process improvement so that people close to the project can bridge identified gaps in PM practice including, but not limited to, aid / relief projects.

The enduring models of how this would be understood, made workable, be accepted by communities and have a positive and significant impact on the overall goals of the organisation and the key stakeholders was arrived at in the following process summary. This can be applied in an action research process, where appropriate, for groups or practitioners needing to resolve the keys to their rapid response and resolution, or for programmes to projects to enable understanding, effective practice and community take up. The model illustrated in Figure 7.3 is the one arrived at in response to the aim of enabling the AR to PM Methodology – Synthesis action review, where people close to the project can bridge identified gaps in PM practice including, but not limited to, aid / relief projects.

Communication is, of course, one of the keys to success in these, or any, environments. To make sense of the process and for factors to be successfully engaged, the stakeholder outcomes need to be readily understood and effectively followed. The extensive research undertaken in this thesis over the last three years, and more leading up to that, arrived at the processes set out herein as the best take up understood and worked to.
7.2.1 Most Significant Research Findings in Practice

The most significant research outcomes realised, in *PM Practice*, through this action research, are summarised as follows;

7.2.1.1. Focusing, simplifying and clarifying action research and project management process in everyday project practice

Project Management and Action Research have very similar key steps as has been outlined in this thesis. There is great significance in this if the synergies and understandings can be realised and combined in everyday practice, research and understanding. The core steps of realising objective outcomes, planning deliverable outputs, action then monitoring and evaluating those to reflect and learn and then re-evaluate the objectives is so important to such a diverse range of needs.

The rigour of the repeating, interlinked and dependent cycles of action and reflection ongoing through the life of the project are the key core synergies that enable us to realise the mutual workings of project management and action research. The constant cycle of monitoring and evaluation enabled similarly through action research and project management is a key realisation of this research. What this means at the everyday level, is that project managers are constantly learning through their ongoing project cycles and equally that research can tap into these cycles and reflect that learning more simply than otherwise might have been realised.

That is quite significant actually in that realisation, that it could be a relatively simple and effective path now to link project management and action research in this pragmatic and reflective paradigm to enable learning, understanding, practice improvement. This also could lead to simpler, more effective collaborative academic / practitioner action research project management in response to a recent and very relevant paper on that subject (Walker et al., 2008c). The twain of practice and research may meet and very well in this context.
Notably also and, understandably, this research thesis has been structured in this method and the enduring models that emerge from it and are related to the model of the chapter organisation and method can be seen as aligned as depicted in Figure 6.3 in Chapter 6.

The capturing of this in practice and research across such a wide spectrum is so valuable, but is in danger of being both overlooked and not put into practice.

The very powerful simplicity of the context resolving framing of the core questions of **what, why, who and how** is a first significant arrival. Then through those enactors, these can be resolved by **objective outcomes which are each defined by a specific set of deliverable outputs made up by actions or action plans**. These can then be **monitored and evaluated through the life of the projects or programmes** to agreed objective outcomes. This is so powerful but, previously so underestimated or misunderstood, in both research and practice.

At a core level it is best realised in example through **Figure 5.32 - Core Skeletal Action Research Project Process Model Resolved**

**7.2.1.2. Providing a sound and demonstrated example of PM process improvement and how, through an action learning approach, people close to these projects can develop their own self-help approaches that can be specifically deployed to bridge identified gaps in PM practice**

People are the core of projects. If those right in the thick, or at any level, of aid relief projects, or any projects whatsoever, cannot **make sense of what to do, why they are doing it, who they need to engage with and how to do it** then it may not prove workable. If they cannot **understand and make sense of it**, it will not be **workable** in their view. If they cannot resolve from their **internal** lived experience and understanding to the **external** environment and context they are now to be, or are, engaged in they will be in serious danger of increasing rather than decreasing the risks they are working to resolve.

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If their objectives do not align and work with the group response or the group response does not or cannot work these same things out then the same risks will increase, possibly exponentially.

So the key steps and processes realised through this research, and summarised above, can be seen as very significant to projects the world over. If projects or programmes of projects do not have the essential steps worked through and resolved then it is most likely those projects are heightening their risks where they should otherwise be minimising them.

On a more positive note, they can benefit increasingly from the application of these core processes and reflection and understanding from the enduring models. *It is more now a significantly challenging matter of how to get that understanding, reflection and method into practice.*

7.2.1.3 *Providing a significantly improved understanding of the necessary front end to project management, in general and, in the aid / relief world in particular*

The understanding of the necessary front end to project management was realised through this pragmatic action research, and within that, soft systems methodology in a structured but open way. It was able to be engaged with people who have been enabling projects to work in any way possible, in challenging environments and contexts. It was enabled to effectively bring good practical experience to the research table.

The extent to which this was enabled was more than expected and, upon reflection, it was realised that there is a great degree of informal research going on in any good practice. Research, as a discipline, is challenged to bring that understanding to the table and engage with that of general project practice more. It can be hard for a seasoned practitioner to initially get one head around this divide between formal and informal reflection, ongoing evaluation in practice and research. It may be even harder for others ongoing to bridge or work to bridge it. But there are such capable, resilient, intelligent, well intentioned and experienced people out there, in both
practice and research. In these cases covered in this thesis, it was enabled in an effective and positively impacting way.

Some now see the emergence of ‘pracademics’ in this needed bridging space. The term ‘pracademics’ meaning people who have extended experience and can put that in place in research. They question research and practice through their reflection of worked experience and tacit as well as explicit knowledge. At the same time, they can enable effective project action research processes and access many sources of literature from numerous disciplines.

The understanding of the front end to project management gained through this research, significantly, came through the aid relief world, in particular. The challenges and dilemmas of those worlds and their consequent worldviews, methodologies, and lowly resourced, but necessarily pragmatic, response proved of essential value to this research and its outcomes. It is not to say that these methods are perfect in themselves and those involved would be amongst the first to admit that. But they do work better than others and have survived out there for over 40 years now and have brought significant value to the table in many contexts from that working.

There was, more deeply within each of these practitioners and researcher, in this case, the lived experience of those worldviews and the drama of that stage, so to speak, with all its related emotions, skills and needs. From that came the depiction and translation of that into workable, understandable models for practice.

These models have seen the test of the elements of earth, water and fire, and more importantly, the practice in response to re-occurring disasters, unfortunately with an earthquake in Nias, Indonesia three months after the tsunami that had already devastated these parts of Indonesia and South East Asia, and then the bushfires in Australia and all their related loss and destruction. Then practice makes for improvement, the work that followed in the field unexpectedly, by nature in its fury of fire in this case, and so close to home, and with a different group of practitioners and communities.
The beauty of these models shown in Figure 7.1 is in the power of their simplicity and potential understanding and universality of use as reflected by this exhaustive research. They may be elegantly simple and they may be eminently useable. That is now for others to work to see. In that formative light the models that developed and endured these tests of fire, water and earth are significantly replicated here in Figure 7.1 because they show their obvious synergy and they can be so useful to the future of project management best practice.

We use models, in summary, because they are of the project world and practitioners in communities work best with them. As well outlined in a paper on the need for new paradigms for complex projects

“In order to support the management function, in particular planning, forecasting, monitoring and control, analysts must be able to model complex projects.

- Models can improve on classical methods, retaining the bottom-up decomposition into project elements.
- Alternatively, top-down holistic models can be built – perhaps the most successful technique being System Dynamics.
- Traditional methods capture only ‘hard’ quantitative data. It has become clear that ‘softer’ ideas must also be included in project models, if they are to be a useful representation of the real project (Williams, 1999; p272)

7.2.1.4 Realising the benefit of praxis to everyday and community projects and PM in general.

The longest surviving practical philosophy, in respect of objective to outcomes and deliverable actions, dates back to that of Aristotle, millennia ago. Part of the benefit of that understanding is the value of praxis, where it is seen as a cycle of action and reflection that includes philosophical, contextual, needs and pragmatic considerations.

This is significant in that too often project management and its historical methods has sometimes be seen and treated as a technical enterprise or mechanistic programme with focus primarily on material goals and application. What emerges, and was seen by many earlier, is that projects are human as well as material
developments which work properly with the integration of ‘soft’ and ‘hard’ approaches and methodologies.

One of the keys to success, in this light, is the recognition of and working to value. Antecedent to that is an understanding of the values and authentic leadership needed in that, as outlined previously in this chapter.

7.2.1.5 Identifying the necessary antecedents for effective project management practice in any environment and how they may work in all range of projects and then specifically in the aid / emergency management world.

The identification of the necessary antecedents for effective project management in any environment was one of the core assignments of this research. The antecedents have been detailed, summarised and further developed throughout this thesis. They have significance in that it could not be found, in this sort of study, to have any resolving incorporation or methodology before. The importance of antecedents and the process to address them was not recognised and implemented. Even in this research, the extent of their influence over project management success emerged as considerably more and also more predictable than expected, especially to the extent that has now emerged and been further tested in action, validated and can be understood.

7.2.1.6 The core value and synergies in each of the PM body of knowledge methods employed around the world.

The various main epistemologies, bodies of knowledge and methods engaged throughout the project world, be it traditional, international development or social engagement have intrinsic value, but not often recognised synergies. This context raises insightful challenges to traditional project management and it is seen that simple, robust and effective methods emerge from the constants occurring from all work under review. This study may greatly assist to extend that into practical and valued application of Project Management in each of these worlds and, most significantly, in combination. The writer of this thesis has gained real value through
looking at their constants and combining the best of each of their core methods. Further work in specific engagement through each of the appropriate representing bodies for each worldview could bring considerably more significant outcomes for each and all together.

**7.2.1.7 Summarising in a simple, but effective universal framework, the antecedent contextual project methods for application in any environment and particularly the PM Framework and application undertaking Aid / Relief Projects.**

These methods are set out either in the body of this thesis or in the appendices. In summary the most comprehensive framework is that of *Figure 5.29 Full View of Overall Organisation to Programme to Project Cycle Management*. This three linked cycle frame incorporates all of the key success factors coming out of the SSM work and then the peer review validation workshop and engagements following those.

This also gives working method to the three levels, organisation to programme to project, ‘point of view’ and incorporates governance and communication in this respect. The development to the understanding of the antecedents is tracked in detail within chapters 4, 5 and 6 and their better and more immediate working at an everyday level from that to this summary.

**7.2.1.8 Facilitating an improvement in the way that the studied projects are understood, approached, planned and managed.**

What becomes very clear after working at this for so long, in both practice and research, is that the approach, in both a tacit and explicit sense, is significant to the success of the leadership, methods and implementation. If the understanding is in the approach and the planning, then the reflection in the management and the outcomes and the effectiveness, efficiency and efficacy is the greatest value of all.

Therefore, the facilitation of an improvement in the way these projects are understood is seen to be a very helpful step forward. The facilitation through this work is then able to realise significantly better understanding and, for this practical
researcher that has been, among a significant number of its outcomes, a realisable step forward. Further research at a wider group and institutional level could benefit significantly more from this.

7.2.1.9 Very significant gain in knowledge at a personal, group, organisational, community of practice level.

Possibly the greatest gain for me in this case, as the practitioner researcher, was a gain in understanding rather than a gain in knowledge. My understanding of the broader context, needs and enabling paradigms towards this was increased well beyond the expectation of a 40 year seasoned practitioner. This essentially gave me new life and freed me from the constraints of my previously bounded worldviews.

This limitation, in retrospect, was a mostly inevitable product of the more positivist frame of the project management worldviews and my development within those experiences and knowledge bases (explicit or tacit). That is not to say I did not realise the importance of the human and environmental / contextual needs of projects, but rather that I was not sufficiently aware of the effective array of paradigms and related methodologies to address and better resolve these.

We may see now, with all due respect, and from the extensive involvement of other practitioners and researchers from all range of backgrounds, contexts and experiences and their relevant organisations, that almost all of us may have been more constrained in view and therefore the encumbent methodologies capabilities.

Communities of these practitioners and then more general communities in themselves can also benefit from this wider and more understanding view. That is one of the possibly most significant realisations or potentials of this research. That these better understandings, methodologies, core values and outcomes can be enabled much more extensively worldwide and for so many countries and communities.

Good understanding is achieved through a diverse, but relevant set of communities of practice in this work as outlined in this thesis.
7.2.1.10 *Significantly improved validation and understanding in applying, testing and improving models in practice and research over an extended time and place.*

Significant learning was achieved through action research and reflective practice both in the aid / relief area and beyond. As previously stated, the lessons learned were stronger and more able to be validated, than expected. They also had more impact on the practice of project management and provided significantly more respect, in particular, for the antecedents to project management.

The importance of key stakeholder engagement was probably the most outstanding and, within that, the respect for different values and the importance of those to satisfactory outcomes.

The key outcomes were progressive ones and reviewed and reflected upon through the single and double loop learning that is availed by action research in practice. The methodology of action research was also a significant finding in itself in its value and synergies to the project process in both management and evaluation. The critical and reflective capability of pragmatic action research was again a significant realisation in itself and the correlation of methods between project evaluation and project management was, quite surprisingly, not found to be enabled previously.

But the key findings were in the results themselves. The key factors coming out of the rich picture work in post tsunami Indonesia, in particular, and then the validation and alignment with those key factors and methods by practitioners of very different backgrounds was as significant again.

The situation analysis in context and environment is essential as are the objectives of the project or programme and the key stakeholders to those organisation or groups involved or dependent on them. The key stakeholder engagement is again essential and this is best facilitated through method and questions related to the what, why, who and how of each intervention or programme to be undertaken.
7.2.1.11 A suitable paradigm for project management research in practice

There has been ongoing debate and ranging views over the best, or even a workable, paradigm for project management research. This thesis both helps develop and, at the same time, saw evolving an appropriate, stable and supportable paradigm for project management research.

This may be best termed the ‘project management’ paradigm. The key aspects of this paradigm are its epistemology, enablement to test sense-making, workability, internal and external validity and impact on objective outcomes, the four key validations worked through this action research.

Action research is core to its value and that is very aligned to the standard project management process, as detailed in this thesis. Pragmatic action research was where the breakthroughs started from in this work. The key validations of sense-making and workability are pragmatic tests of a long time in the making and significant history in broader social development.

Internal and external validity is specific to action research validation but particularly relevant to project management.

The testing of the impact on the objective outcomes is a test of evaluation, actually, that dates back quite some time in ‘evaluation’ and social science as well as the international development and aid relief world. Project monitoring and evaluation has long been worked to best possible effect in those environments.

So what we have here is the best of all project worlds into one cogent and evolutionary project paradigm that fits our world of project management and its antecedents.

7.3 Contribution to Project Management Research

The contribution to project management research of this work could be amazingly beneficial, as has already been born out in application in post disaster PM in flood ravaged Pakistan. But the understanding of the contribution needs an open mind
and a capability to move beyond traditional PM methods and legacy to more social engagement realising the best outcomes through these simplified, robust but rigorous processes. The criteria, benefits and potential impact of this work is then;


**Benefit**

– Greater focus on getting the project objectives and vision well understood at the front-end of projects. Getting outputs and outcomes better understood and to clarify assumptions made.

– By focusing on key stakeholders’ requirements whose needs prompted the project in the first place, their expectations can be better gauged and managed and feedback about the delivery of these through the project can be better communicated.

– By closely evaluating the programme and the project’s place in that programme, the relevance and value of the project can be better understood. The project can be supported and better maintained with resources if viable or if not viable then the project can be re-evaluated. Clarity of vision and objectives is maintained through evaluation. Better assessment tools to avoid misuse of scarce resources.

– The modified LogFrame and M&E approaches provide the high level assurance of staying relevant. The actual project delivery stage may need times of intense focus using traditional PM tools and techniques.

– This work has a significant benefit through praxis that knowledge will flow more easily and less slickly. Individuals and groups benefit from being reflective and through exchanging ideas, groups communities and organisations gain longer term benefit.

**Impact**

– Statement of a project’s objective and place within a program and gaining a wider more holistic view of PM, approaches, tools, and techniques from other parts of the PM world and from general management that may be usefully applied.

– More informed key stakeholders who interact more constructively with the project delivery team, less disruption through unanticipated resistance. More long-term support enabled.
– Requires effective application of the models and understanding of their use for outcome evaluation and determination

– An appropriate array of models to be able to manage the complementarities of taking a broad ‘helicopter’ view while being also focussed on details. Benefits from a ‘bricoleur’ approach to sensemaking and action.

– Choice of models set out to build in learning and knowledge transfer as a recognised project outcome and project to program outcome.

7.4 Main Research Implications

The first realisation with implications for further research in this work was extending and focusing the body of PM knowledge to include improved ways of recognising the contextual factors and PM antecedents that affect undertaking projects in general, and disaster relief projects in particular.

The key focus, however, was improving the way that people and communities involved in disasters respond more effectively to these projects. It also can improve PM practice by identifying a currently poorly understood type of project.

Following this is the better understanding the antecedents of project management best practice and its key success factors, in context and generally. Research extending fuller understanding this ‘messy situation’ context to help explain what antecedent conditions need be in place before PM best practices can be applied to lead to project management success, would be very valuable indeed.

Realisation of the core alignment of the process of the necessary antecedents to project management and the key steps of action research, to extend the understanding of how these may be better worked together more effectively in future for a very large number of groups, communities, regions and worldviews.

The benefit of the critical pragmatic paradigm to projects or their programmes in general, and these sorts in particular, to gain more understanding and acceptance in the wider project research world.
The implications for research and project management in the extent of the action research and practice outcomes which could be enabled through these simplified paradigms and methods are extensive, and could prove of great value to project management research institutes and organisations in general.

The simplification for a whole range of groups, communities and more resourceful application and understanding of the context to project outcomes along with research in a whole range of environments and cultures is work that would also be very appreciated and valuable to a whole range of groups, worldwide.

The potential to cross cultural borders and previous misunderstandings to now realise understandings through different, but simpler and less conflicting ways, has good potential here as well.

Then there is the potential to cross what may have thought previously to have been functionally differing paradigms, methods, processes, ideologies, philosophies and outcomes.

The most interesting and challenging possibility and improvement from this work is the realising in practice, and in research in general, of the simplification of project action research and strategic to programme to project management and more feasible outcomes, with less confusion and less resource waste.

What is the potential impact of this research? How can it be useful to the PM profession?

From a pragmatic perspective, this research and writing has been undertaken to enable it to be useful to two communities—PM practitioners and PM scholars. There are, in amongst all these, reflective practitioners who, through their praxis, consider each experience as a learning opportunity and have effective commitment towards the plan > act > observe > reflect cycle. These reflective practitioners may be positioned in either practice or possibly academia and may work within both types of organisation, even simultaneously.
The subsections of this section will first discuss implications for practitioners and how this work may impact upon them and their stakeholders and this is followed by a subsection that discusses impact of the research and implications for PM scholarship.

7.4.1 Impact and Implications for PM Practice

Four main impacts and implications are summarised in Figure 7. below.

![Diagram of Implication of findings to PM Practice]

**Figure 7.4 High Level Summary of Research Implications to PM Practice**

7.4.2. Thinking about the Program/Project Interface

The first implication of the impact of the findings to practice is thinking about the role of projects within programs. This could be liberating for PM practice. The recent focus on PM research and practice development has been centred more recently on strategy with an explicit aim for projects to be firmly seen as a delivery vehicle of outputs which when combined with other projects, delivers valuable outcomes and benefits. This work has reinforced a clearer link being established between projects and programs with tools that are shown to work to this end. The LogFrame and the M&E tools, or a variant of these tools, provide clear ways in which projects can be mapped and integrated into programs.

This research allowed tools and techniques to be tested and refined through the VBRRA third action learning cycle. Impact and use is summarised in Table 7.1.
Table 7.1 Impact and usefulness of rethinking program to project interface

| What is its potential impact of this research? | Projects are more clearly framed within a program’s intended benefits outcome delivery. |
| How can it be useful to the PM profession? | Better mapping and the adaptation of aid project world tools, techniques and approaches provides better vision definition, scoping mechanisms and stakeholder engagement. |

These tools can now be used as standard and indispensable PM tools for program management in the VBBRA or in any programme of projects.

7.4.3. Re-evaluating Performance Indicators

The iron triangle of time/cost/fitness for purpose has been expanded to be more focussed on stakeholder engagement and notions of how to best monitor and evaluate projects. This leads to evaluation criteria from M&E being seen as relevant.

The focus on evaluation performance indicators such as relevance, efficiency, effectiveness, impact and sustainability provides a paradigm shift in how performance indicators are viewed. Answers to the impact questions are presented in Table 7.2.

Table 7.2 Impact and usefulness of reevaluating performance indicators

| What is its potential impact of this research? | Project performance indicator mapping being more clearly seen to be needed to contribute to program success in terms of intended benefits to be delivered. |
| How can it be useful to the PM profession? | Better mapping of how a project performs in terms of being relevant, effectively and efficiently managed so that outputs are sustainable and produce positive impact to a programme, and can lead to a more holistic view of project and PM success |

Seen in this way the individual project then needs to be relevant to the programme context and goals, as well as producing an outcome, an output that sustainably contributes to the programme goal. The ‘iron triangle’ PM success indicators are part
of the efficiency evaluation performance indicator, so it is not abandoned or lost, but rather is extended by this perspective. Similarly, timely and sensitive performance criteria may be considered part of being effective in terms of optimising the value of the M&E effort.

### 7.4.4. Re-evaluating the Effectiveness of Performance Indicator Criteria

Project performance needs to be relevant and purposeful to serve the aims and objectives of the program and project to deliver the expected benefit. Accepting the pragmatic paradigm leads, therefore to a need for the M&E effort to be valuable and value adding. Evaluation criteria should facilitate **knowledge and understanding/sensemaking**, be **practical and workable**, demonstrate **community internal/external validity** and produce an **objective impact** on the monitoring exercise.

Traditionally in PM, the monitoring process leads to action being taken with an aim to maintaining progress to plan, or influence how an unrealistic plan can be reshaped to be more practical as outlined in Table 7.3. Sometimes the performance measures used do not measure what is important to stakeholders who could benefit from the information and knowledge.

#### Table 7.3 Impact and usefulness of reevaluating activity effectiveness criteria

<table>
<thead>
<tr>
<th>What is its potential impact of this research?</th>
<th>Performance criteria being less exception management driven becomes more transformational in its outcome—performance measurement and management become more clearly a part of continuous improvement and learning cycle.</th>
</tr>
</thead>
<tbody>
<tr>
<td>How can it be useful to the PM profession?</td>
<td>Using the criteria noted in bold above could be measured by how it clarifies understanding about component and system integration and how it affect the expected program outcome.</td>
</tr>
</tbody>
</table>

While traditional PM time management tools such as bar charts and critical path analysis are useful for more technically oriented team members, it may not be...
understandable or appear valid to other stakeholders who may more easily comprehend the same message being transformed into simulation graphics or use of metaphorical media and communication channels that they are familiar with, trust and believe to be valid.

7.4.5. Seeing Projects as Action Learning Cycles

Once we started to see projects in an action learning cycle of *plan > do > observe > reflect* we could see how the missing link of learning within and between projects could be remedied. The point of departure for this work was seeing PM as an action learning process in which knowledge becomes a key asset and therefore of key strategic competitive advantage. A closer focus was on what learning was gained from the PM experience on each project as a result of this paradigm shift as set out in Table 7.4. This has profound potential impact on what constitutes success. It could for example lead to questions about a project such as - what do we now know more about with regard to stakeholder characteristics, desires, potential influence and preferred engagement strategies?

There are many such questions that could be illustrated here that highlight how traditional PM often fails to manage knowledge within project boundaries and across projects.

These questions serve to illustrate a notable gap in value realisation in PM and remedying this can be prompted by changing the paradigm from projects as delivering outputs toward realisation of a tangible objective to one where projects are additionally seen as valuable experimental grounds where valuable knowledge is created and where individual people and groups involved in this endeavour could increase their absorptive capacity and can reduce the stickiness of knowledge transfer.

*Table 7.4 Impact and usefulness of seeing projects as action learning cycles*

| What is its potential impact of this research? | To improve the capacity of PM team members to become reflective practitioners and to improve knowledge transfer within and between projects and programs. |

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How can it be useful to the PM profession?

Improved knowledge transfer from one team to another, projects to project and projects to programs could significantly reduce wasted effort and resource waste.

Seeing projects as action learning cycles also permits great competence and skills upgrading for all concerned.

Two terms used in this context need clarifying. Knowledge stickiness is the perceived difficulty in knowledge being transferred between people. In the traditional PM context, knowledge may be seen as a largely irrelevant project output even if it may be a ‘nice to have’ outcome. Often, people see no need to reflect or to exchange perspectives on issues beyond immediate problem solving when that happens and so knowledge becomes undervalued and is given a low priority.

7.5. Impact and Implications for PM Practice and Scholarship

We again have selected the four most relevant impacts and implication for PM practice and scholarship. As illustrated in Figure 7.5.

![Figure 7.5 High Level Summary of Research Implications to PM Scholarship](image)

7.5.1. The Pragmatic Paradigm

The practice research herein devolved from strong and lengthy industry practice and from a very traditional part of the PM world—the construction and engineering sector. This originally gave us a propensity to hold a positivist stance on many issues and we tended to see projects through a plan and control and more of a technical
perspective. However, the PM world needed to shift understandings quite radically over the past decade to become more engaged in the ‘soft’ people side of PM and also gravitate towards an interpretist perspective of trying to make sense of what happens in project work.

This can be seen in addressing the questions posed as to the potential impact of this research and how can it be useful to the PM profession.

Table 7.6 illustrates the outcome to these questions in light of the pragmatist position which we worked through in conjunction with the action research and evaluation paradigms.

Table 7.5 Impact and usefulness of the pragmatic paradigm

| What is the objective impact of this research? | Improved interest in and quality of PM research through realising a pragmatic paradigm as valid. |
| How can it be useful to the PM profession?    | Motivating experienced scholars with highly valuable lived experience of PM to make their contribution using a pragmatic approach and being able to cite this work and the authorities that were cited here to justify this stance. |

When we reviewed the literature, we find that pragmatism is a well established paradigm. Being pragmatic means that you tend to believe more in what seems to work when it is justified by valid evidence and that the necessary evidence should facilitate **knowledge and understanding/sensemaking**, be **practical and workable**, to demonstrate **community internal/external validity** and produce an **objective impact** on the research being undertaken. It was found very useful to measure each action learning cycle. These 4 criteria are derived from pragmatic action research evaluation theory and, in the pragmatist paradigm, workability and sensemaking are primarily pragmatic tests. However, internal and external validation stems from action research origins while the objective impact is, primarily, validation through 'evaluation' (York, 2009, Brook, 2004, Hope and Waterman, 2003a, Eden and Huxham, 2006b).
7.5.2. Reflective Practice as a Research Approach Exemplar

Calls for reflective practice as an approach for research is not new (Schön, 1983, Raelin, 2007), however there still seems to be a residual mistrust by many academics that practitioners cannot be trusted to base findings on intuition. The medical profession has built its reputation through case studies of reflection on cases in a reflective way that exposes assumptions that may have turned out to herald misplaced confidence in a theory, yet that profession has had several hundred years of theory development from and out of practice. For some unexplained reason, PM and many management discipline domains are expected to conform to scientific paradigms of ‘truth’ and ‘rigour in research’, even though management is dealing with social systems not mechanical or molecular interactions.

Reflection and sensemaking has been championed and advanced by such proponents as Raelin (2007, 2001) and Weick (2001, 2005) so it has a strong pedigree. This work supports that tradition and adds to numerous studies of the lived experience of project managers such as that found throughout the chapters of Hodgson and Cicmil’s (2006) book. Table 7.6 illustrates our answers to this chapter’s questions.

Table 7.6 Impact and usefulness of reflective research

<table>
<thead>
<tr>
<th>What is the potential impact of this research?</th>
<th>Improving understanding of the fine-grained complexities experienced by project managers— their lived experience.</th>
</tr>
</thead>
<tbody>
<tr>
<td>How can it be useful to the PM profession?</td>
<td>Unearthing many instances of tacit knowledge as well as expose the raw lived experience in ways that emotions, feelings and power issues are far more clearly portrayed than many other research approaches can deliver.</td>
</tr>
</tbody>
</table>

This research provides a high level of reflective practitioner research with reflections across 40 years of practice and extended CoP member reflective practice input as well as the very valuable SSM studies.
7.5.3. Innovations in SSM

One of the most interesting outcomes from this research was in pragmatically facing challenges in conducting interviews with very busy and absorbed professional project team members operating in distressing conditions. The ‘normal’ SSM practice is to interview participants and, over time, develop rich pictures through an iterative process.

In the action learning cycle 2, it was necessary to travel to some distant and ‘at risk’ parts of Indonesia to interview the participants.

We managed to devise a way to co-develop participation in ways of representing the classical cartoon-like vignettes, but overlay these with themes and action related colour coding. These were significant innovations in that they provided ideas of how rich pictures can be drawn and used for the co-generation and review that these entail in a way that intensifies meaning and imparts themes and issues with distinct clarity. We also used technology effectively by using emails to pass evolving versions of the rich picture over an extended period until the participant was happy to sign off on the veracity of each picture.

My years of experience of a project manager took me this way and to take this approach. This was because my life’s experience of PM had been about working with stakeholders. We practice project managers have, for decades, been used to gaining other people’s perception of ‘truth’—be that expected time to undertake some task, or method to perform some complicated operation or to gain acceptance for a plan of action or sensitive negotiation over issues. By taking a pragmatic action research evaluation approach and those 4 criteria presented earlier in Section 6.2.2.1. Table illustrates the impact and usefulness of these innovations.

<table>
<thead>
<tr>
<th><strong>Table 7.7 Impact and usefulness of innovations in SSM</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What is its potential impact of this research?</strong></td>
</tr>
<tr>
<td>Improving the efficiency and effectiveness of developing rich pictures in SMM studies.</td>
</tr>
<tr>
<td><strong>How can it be useful to the PM profession?</strong></td>
</tr>
<tr>
<td>The approach to investigating messy situations using SSM becomes a useful general tool that not only researchers can use, but also practitioners in</td>
</tr>
</tbody>
</table>
problem solving. The innovations of colour coding themes and important processes adds to the clarity of the rich pictures and makes developing root definitions more straightforward.

This contribution in SMM innovation had dual utility being useful for general research as a way of improving how to develop rich pictures, but also as an exemplar of how SSM can be used in decision making, thus building on other useful examples that we highlighted in Section 3.3.2 and cited examples such as (Winter, 2009, Checkland and Winter, 2006).

7.5.4. Aid Project World Research as a Focus

This research was able to cite only a few examples of PM research being undertaken within the aid relief project world when compared to what may be found on research case studies on construction, IT and even change management or business process change. What this research brings to the traditional PM community is reinforcement that worthy research should be taken, that aid world tools such LogFrame and M&E are worthy of further study from a PM perspective and that a PM perspective on aid projects could be very rewarding. Table 7 illustrates the impact and usefulness of research aid relief projects.

Table 7.8 Impact and usefulness of undertaking aid relief project research

<table>
<thead>
<tr>
<th>What is its potential impact of this research?</th>
<th>Demonstrating how aid projects can be studied from a PM perspective.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Showing how studies can be used to validate tools and techniques either from the aid relief project world or from the traditional PM world</td>
</tr>
<tr>
<td>How can it be useful to the PM profession?</td>
<td>The action learning cycle 2 methodology is useful as well as action learning cycle 3 as a validation approach.</td>
</tr>
</tbody>
</table>
This outcome of the research may prompt testing of LogFrame and M&E in a variety of other PM contexts and such study may prompt other scholars to investigate the lived experience of project managers in this highly challenging environment.

7.6 Concluding Comments

7.6.1. Practice and Scholarship Contributions

We set out a series of contribution objective outcomes and outputs that we aimed to achieve through presenting this research in this thesis. These are summarised in Table 7.10 with details of where in this book these were addressed.

<table>
<thead>
<tr>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explaining how the PM mindset is changing to enable us to better see value</td>
</tr>
<tr>
<td>and benefit as being derived from individual projects to (most usually)</td>
</tr>
<tr>
<td>enhancing the effectiveness of programs designed to deliver business or</td>
</tr>
<tr>
<td>social outcomes.</td>
</tr>
<tr>
<td>Offering a deeper understanding of the validity of seeing project objectives</td>
</tr>
<tr>
<td>and outputs in a broader way that has been traditionally privileged and</td>
</tr>
<tr>
<td>dominant in the PM literature through our exposure to the vast aid relief</td>
</tr>
<tr>
<td>and aid project literature.</td>
</tr>
<tr>
<td>Introducing pragmatic research methodological approaches to readers who</td>
</tr>
<tr>
<td>may not have considered their usefulness before</td>
</tr>
<tr>
<td>Exploring the lived experience of project managers in extraordinarily</td>
</tr>
<tr>
<td>challenging circumstances and indicating how they cope and what other PM</td>
</tr>
<tr>
<td>professionals in more traditional contexts can learn from them.</td>
</tr>
<tr>
<td>Explaining the nature and impact of antecedents to PM best practice.</td>
</tr>
</tbody>
</table>

The primary objective outcomes for this research were set out in Table 4-1 in Section 4.4 in order to gain the necessary understanding the antecedents to PM Best practice through lessons learned from the aid relief project world with 3 identified outcomes and specific action outputs actions for each outcome. These actions informed the research oriented action research that provides the empirical evidence which supports the research conclusions and assessment of impact.

7.7 Future Directions

The age old project question, ‘where to from here?’ now begs appropriate review. There is still much to do and realise. Research such as this one undertaken, whilst
greatly supported by RMIT, the PMI and the very encouraging number of practitioners and community engagements enabled through all of that, whilst now acknowledged as significant, is really a start towards much more significant research.

There are numerous well resourced and relevant stakeholders who could be interested and gain significant value from taking these embryonic formations to deeper and wider engagement in a whole range of contexts and environments for a whole range of communities and cultures. The most pressing need in this respect is that which titles this thesis. That is the aid / relief project worlds. That would also be fitting because they are the worlds which have inputted so much and so significantly to this research to date.

The benefits of extending this research and practice outcomes need not be limited, however, to only the aid / relief project world. There are significant benefits and improvements, both in understanding and methodological improvement for all range of projects, programmes, organisations, communities, practitioners and people in general.

Much of government and delivery of social services is now being seen as project work with erstwhile operation managers being re-birthed as project managers are coping with managing temporary organisations in ways that are alien to many of them. So we need to learn more about their ‘lived experience’ of PM and what lessons they can bring to the more traditional PM world in the same way that this study allowed us to discover long established tools and techniques such as LogFrame and M&E that while known in the PM literature, nevertheless lie at its fringe at present and can be realised in better frames and use in mainstream PM as well.

Programme and project management mainstream developments and project research can benefit from the findings of this action research in practice.

In the time of finalising this thesis this work was taken at request to assist in the Pakistan Flood Relief work. The following communication was received in respect of the efficacy and effectiveness of that work;
“Dear all,

The past two weeks have been an incredible learning experience for everyone, and I thank Paul Steinfort, Ian Hirst and Nigam Vaid for making the trip, and Paul Wilson and Lew Gedansky for making the trip possible.

The outcomes of the effort have already exceeded our expectations. There were a total of 61 people who received initial training, including representatives of major relief organizations, as well as PMP’s. In addition, we are all beginning to see how Paul Steinfort’s methodology and the PMPDR actually are both needed and complement one another, and together create a very robust process set.”

7.8 Chapter Summary

This chapter had the objectives of wrapping up this thesis in as tidy and insightful a fashion as is possible, given the magnitude of the task, while leaving readers with the sense that this is not a final step in journey, but the necessary preparatory steps to be taken to begin a bigger and now more feasible journey.

The chapter highlighted 4 major implications that the research has on PM practice and PM scholarship. These were not exhaustive, but indicative, and other implications could also be drawn. We tried to clearly establish the impact made by this research and how it may be useful to PM. We hope that other researchers will continue this type of work and that this work provided useful examples. Our short section on future directions should stimulate that interest.

In wrapping up this thesis my I again acknowledge the contribution made by the extended CoP’s. They have been patient, resourceful, extremely giving and intensely valuable as a sounding board, as an expert group that helped to dynamically re-frame insights and explore the impact and validity of research findings discussed and presented here. May I also acknowledge one particular personal ‘point of view’. I was approached to undertake this research as a seasoned, and somewhat successful, practitioner who had traversed reflective many project types over many project contexts and environments.

It may be seen by some that practice needs to work harder to keep up with research and by others that research needs to work harder to keep up with practice. What
unfolded to me, now more clearly seen with the benefit of reflective hindsight, is that practice is potentially more valuable than researchers give due value for. There does seem to be, and I experienced this seriously at significant stages of this research, a tendency for some researchers to look down on practitioners as being undisciplined or not sufficiently intellectual or rigorous in their work. May I simply state that to compete in professional practice, and to grow and bring benefit to others through that, practical research, or is that action research, is part of everyday developments.

In that respect, I have illustrated the practice examples of mine, but significantly, and more importantly, larger institutions and worldwide organisations, existing action research, single and dual learning cycles in the first research cycle of this thesis. It sometimes appears that practice is not keeping up with research, but it could also be that research is not keeping up with practice. The twain need to meet, with more understanding and mutual respect, and it is inevitable that will happen more and more in the future, necessity being the mother of invention and our possibly diminishing resources worldwide fuelling that necessity.

If there is one concluding point that we wish to make for both researchers and practitioners it, is that the strength in the rigour of engaging a voluntary CoP where practice and research are combined is of the most significant value of all.

If this thesis and the unexpectedly challenging and extended journeys, stories, understandings, lessons and resultant combination and more powerful simplification of models to more sustainable and lower risk outcomes, is able to open the eyes of many more to what is really now possible, then it will all be worth it. If that enablement and this practical research is taken forward as simply a small, but useful, step to significantly more shared and widespread outcomes globally, then it and all the efforts of all the people who worked with or inputted to this work will be of significant benefit and value to future of this lovely or lonely planet.
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Appendix 1 - Validating References for Project Action research
Reference: Paul Steinfort

To Whom It May Concern

I have worked with Paul Steinfort of PSA Project Aid for more than 12 months. Paul has been working with SurfAid as a mentor, facilitator and project management guru. We have benefited greatly from the tools, experience and professionalism of their organization and Paul as a global leader in his field.

Many of the lessons learned from the construction project management world can be applied to any form of project planning and this is of great relevance to us as we have been putting together project plans, reporting systems and addressing the critical issues of monitoring and evaluation for our health and development projects. Paul’s experiences in the commercial sector and in the aid world have shaped an enormous capacity to provide a practical approach to project management applied in any project context which have been hugely beneficial to SurfAid.

The aid world needs more people and support from people like Paul and PSA Project Aid. Frankly without Paul and PSA Project Aid, SurfAid would be a long way from where we are at today and we owe all the team there especially Paul an enormous debt of gratitude.

Sincerely,

Andrew Griffiths
CEO
SurfAid International
12/12/06
19 April, 2006

Dear Sir/Madam

Re: PSA Project Management - Program Management Office Services

For over 2 years, PSA Project Management have provided specialist project management services to the Mail and Networks Division (MND) in the establishment of the division’s governance structure and program management office. To assist the Mail and Networks Division in achieving their objectives, PSA Project have assisted in the development of standard methodologies, governance processes and templates, development of summary schedules and resource plans, in addition to providing mentoring and consultation to project managers.

Specifically PSA Project have provided or assisted in the following areas:

• Review of existing methodologies, governance process, reports within the MND and other areas of AP to provide a single consolidated document of agreed methodologies;
• Review and standardisation of templates (Project Brief, Project Management Plan, reporting templates etc);
• Set up and maintenance of a single location for all project information, providing future Project reference, estimation and information;
• Review of existing schedules with Project Managers and the creation of a Summary Master schedule identifying all projects, dependences between projects and associated resources;
• Management of projects within the Project Office to ensure consistency with Business Planning approved strategies, corporate objectives, relative priority and reporting requirements to the NEC and Board;
• Clear definition of the goal and scope of each project along with the corporate objective it achieves;
• Clear identification of Managers and Project Managers accountable for each project;
• Competency Assessment enabling skill and knowledge improvement of Project Managers;
• Provision of relevant information on projects to enable management to make appropriate and informed decisions; and
• Establishment of program office champions within each unit to facilitate education of project office methodologies, tools and reporting.

PSA Project have provided a valuable service in the establishment of the Program Management Office and continue to provide ongoing support and improvement. The processors developed are now also being used by other Divisions in the establishment of their Program Management Office’s.

Don Newman
Manager Network Infrastructure Unit
Mail & Network Division
Australia Post
PSA Project Aid  
620 St Kilda Road  
MELBOURNE  VIC  3004  

Attention: Paul Steinfort  

Dear Paul  

Re: PROJECT MANAGEMENT SERVICES FOR C.R.S. IN ACEH  

Catholic Relief Services (CRS) are continuing to provide over U.S. $100 million worth of relief projects to tsunami-devastated areas of Aceh, Indonesia.  

CRS are very grateful for the project management services provided by PSA Project Aid and it was very useful having you support us on our projects directly and indirectly over the last two months period here. Your advice in the field in our Aceh Reconstruction Projects was invaluable, as has been your written advice and reporting.  

We acknowledge that the services outlined have been provided free of fee charge to CRS by you but at the same time have been worth more than simply the value of the fees to us.  

The value to us is in getting your project management expertise at maximum benefit to our beneficiaries. This has enabled practical and cost effective project management support to the reconstruction effort and provided the development of effective project aid to the international reconstruction effort in Aceh and beyond with due benefit and at least cost.  

We thank you sincerely for your support in the field and our office here in Aceh and we look forward to an ongoing relationship with you and PSA Project Aid Pty Ltd.  

Yours Faithfully  

Scott Campbell  
Aceh Director  
G.R.S. (Catholic Relief Services)  
Banda Aceh  
Indonesia
Appendix 1 – Project Management Action Research Validation
Dual Action Learning, Rigorous Cycles (16 pages in this pdf document)

MELBOURNE CRICKET CLUB
NORTHERN STAND REDEVELOPMENT

Statement of Service – Project Management

Provider: Steinfort Project Management @ mcg Pty. Ltd.
Suite 2/602 St. Kilda Road
Melbourne, Vic 3004

Project Details: In April 2001, the Melbourne Cricket Club and the MCG Trust announced the redevelopment of the northern side of the Melbourne Cricket Ground would be undertaken at a project cost of around $434 million. The project consisted of redevelopment of approximately 55% of the MCG by replacing the existing three stands on the northern side of the MCG with state of the art facilities including, improved seating and viewing lines, additional restaurants and cafes, upgraded catering facilities and new media facilities.

The project announcement followed a two stage feasibility study which commenced in September 1999.

Scope of Service: Steinfort Project Management was engaged to provide the following services:
- Feasibility Study Phase:
  - Prepare the scope of the feasibility study.
  - Arrange the engagement of the Consultant team to undertake the two stage study.
  - Manage the study through the stages including programme preparation and monitoring.
  - Oversee preparation and submission of the final reports.

- Project Development Stage – Pre-Construction Contract Award
  - Overall project management including planning, programming, risk management, monitoring and reporting during design and tendering phases.
  - Preparation of pre-registration and tender request documents including evaluation criteria and assessment scoring system for Head Design Consultant contract and Design and Construct contract.
  - Assistance in developing D&C Contract documents including contract control mechanisms.
  - Manage pre-tender briefings, site visits and answering of tender queries.
  - Evaluation of tenders and recommendation on D&C contract award.
Appendix 1 – Project Management Action Research Validation
Dual Action Learning, Rigorous Cycles (16 pages in this pdf document)

- Assistance in final negotiations for award of D&C contract.
- Advise the Principal on all project management, building and contractual matters.

Project Construction Stage
- Undertook role of Project Manager in the D&C contract covering:
  - Specific focus on Time and Risk Management.
  - Ongoing development of program and staging requirements and advice to Client on same.
  - Monitor and reporting on design and construction progress against program productivity, potential delays and forecast milestone completions.
  - Evaluate and determine claims from the builder in respect of program, staging and EOT’s.
  - Advise on implementation and enforcement of all contractual obligations and remedies in relation to contract duties.
  - Issue instructions and determinations to contractor as required.

Results:
During each stage of the project, Steinfort Project Management met their required targets in managing, programming, monitoring and reporting. This has ensured attainment of the tight project timelines at each stage.

Summary:
The Melbourne Cricket Club has been satisfied with the professional services provided by Steinfort Project Management in the areas of project management including planning, programming, monitoring and general project management advice.
Steinfort Project Management has made a significant contribution to the successful completion of this complex project which is of importance to the Melbourne Cricket Club and the people of Victoria.

Source:
Mr. Stephen Gough
Project Director and
Chief Executive Officer
Melbourne Cricket Club

Signed: [Signature]
Date: 6th February 2006
Appendix 1 – Project Management Action Research Validation
Dual Action Learning, Rigorous Cycles (16 pages in this pdf document)

18 December 2001

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Reference for Paul Steinfort & Associates – Casey ARC

It is my pleasure to provide a reference for Paul Steinfort and Associates who played a vital role in delivering Australia’s newest Aquatic and Recreation Centre on time and within budget.

The Casey ARC is a $17.4 million Aquatic and Recreation Centre comprising of a 50 metre pool, wave pool, toddlers pool, learn to swim pool as well as gym and fitness areas.

Paul Steinfort & Associates have clearly demonstrated their project management skills professionally and with integrity in delivering an outstanding project at the best price, in the quickest time and to the highest quality.

The project management covered all stages from start to finish, this included concept design, design and documentation, and design and construction. The design was novated with 55% to the construction stage. This resulted in a very short two year overall program, which demanded a high level of management skills in a very dynamic and diversified team of professionals and trades.

I would therefore not hesitate to use their services again and highly recommend them for any other project management position.

Yours faithfully

[Signature]

Ray Butler
Director Infrastructure Services

More than Victoria’s fastest-growing municipality
Appendix 1 – Project Management Action Research Validation
Dual Action Learning, Rigorous Cycles (16 pages in this pdf document)

5 April 1999

I have been asked to provide a reference on behalf of Paul Steinfort and Associates (PSA) and I do so without reservation.

PSA have been retained by St John of God Health Care for approximately the past seven (7) years to provide full project management responsibility for two major redevelopment projects at St John of God Warrnambool and St John of God Geelong. The collective budgets of these projects nearing approximately $30,000,000. My observation and comments of Paul Steinfort and his team will relate principally to the Geelong project suffice to suggest that all the positives achieved in Geelong under PSA’s guidance do I believe apply equally to the success of the Warrnambool project.

The Geelong project incorporated the $15,000,000 major redevelopment of an existing Private Hospital to provide a comprehensive upgrade of facilities underpinned by the significant challenge of maintaining full business turnover and all services whilst retaining environmental ambience. I am delighted to indicate that these objectives have been achieved to our absolute satisfaction.

PSA’s professionalism, advocacy, attention to detail and advice were instrumental elements in achieving this outcome. At all times this has been underpinned by a strong demonstration of honesty and integrity. PSA’s involvement in the project has been comprehensive and has incorporated a range of elements including:

- Fee negotiation and appointment of consultants to project
- Coordination of all pre construction planning processes
- Liaison and negotiation with all planning authorities and instrumentalties
- Tender documentation preparation and analysis
- Contract administration and management
- Project monitoring and management
- Negotiation leadership and advocacy on behalf of client.

In addition to these technical skills PSA has endeavoured to fully understand not only the complexities of our business but also our Mission and culture to ensure that all strategies and decisions achieved the best possible outcome for St John of God Health Care.

I am pleased to indicate that the project is nearing practical completion in accordance with our financial and timeline expectations and I have no reservation in suggesting that the achievement of these project outcomes in an at times testing environment would not have been achieved with the comprehensiveness of professional and personal support offered by PSA.

Our hospital is preparing to embark upon stage two developments incorporating a new medical centre. This project will incorporate all the challenging elements of stage one however we proceed assured in the knowledge that PSA will again guide us toward success through the application of their immense skills base and focus on achieving an outcome in the best interests of the client.

STEPHEN ROBERTS
Chief Executive Officer

P: 03 5226 8888
E: info@stjohnofgod.com.au
W: www.stjohnofgod.com.au
The Royal Melbourne Hospital

7 December, 1994

TO WHOM IT MAY CONCERN

REDEVELOPMENT - STAGE 1B
CONSULTANT PROJECT MANAGER

As part of the Hospital's master plan for redevelopment of the 50 year old infrastructure, the Stage 1B Building was proposed to be located on the corner of Grattan Street and Royal Parade.

The building of approximately 1,600m² accommodates the following departments:

- Basement - sterile processing service
- Ground floor - emergency department
- First floor - radiology
- Second floor - cardiology and coronary care
- Third floor - operating theatres

Demolition of the site for the new building commenced in July 1992. In July 1994, the emergency department moved into the new facility. The relocation of the radiology department, cardiology and coronary care units was completed in November 1994 and operating theatres are scheduled for early December 1994.

The total project budget was approximately $50 million. The project was overseen by the Ministerial Steering Committee, established jointly between the Hospital Board of Management, the Minister for Health and the Department of Health and Community Services.

Day-to-day management of the project was vested in the Project Control Group, chaired by the Project Director.

The project was delivered utilising a construction management contract with direct trade contracts to the Principal, The Royal Melbourne Hospital.

PSA Project Management of 620 St Kilda Road, Melbourne, 3004 was engaged in July 1992 to fulfil the role of Consultant Project Manager for the project, providing the following services:

- assume responsibility for the co-ordination of programming, industrial relations, construction and commissioning of the Stage 1B project during the documentation, construction, equipping, commissioning and defect rectification stages,
The Royal Melbourne Hospital

7 December, 1994

TO WHOM IT MAY CONCERN

REDEVELOPMENT - STAGE 1B
CONSULTANT PROJECT MANAGER

As part of the Hospital’s master plan for redevelopment of the 50 year old infrastructure, the Stage 1B Building was proposed to be located on the corner of Grattan Street and Royal Parade.

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- Third floor - operating theatres

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The total project budget was approximately $60 million. The project was commenced by the

The Royal Melbourne Hospital

- 2 -

- be accountable to The Royal Melbourne Hospital and provide reports to the Hospital and the Ministerial Steering Committee. Take day-to-day direction from the Hospital Project Director within the delegated authority of the Ministerial Steering Committee;
- establish and maintain appropriate procedures for clearly defining the project team’s responsibilities in terms of administration, accounting, approvals, reports and meetings;
- develop, monitor and report progress of the master program for the project, from documentation to commissioning, identifying major milestones and critical target dates,
- ensure an appropriate quality control and testing regime is established and maintained,
- establish procedures in association with the quantity surveyor for issuing of
The Royal Melbourne Hospital

7 December, 1994

TO WHOM IT MAY CONCERN

REDEVELOPMENT - STAGE 1B
CONSULTANT PROJECT MANAGER

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The total project budget was approximately $60 million. The project was managed by the

The Royal Melbourne Hospital

- 3 -

During the project, significant issues arose including a major review by the Government, performance and financial stability of contractors which required a flexible team approach from all participants of the project. PSA Project Management maintained their commitment and tenacity throughout these issues to ensure the project was delivered in the shortest time and lowest possible cost.

The Royal Melbourne Hospital is satisfied with the results of the project, which has been completed both ahead of time and below budget. Importantly, all departments of the Hospital remained operational during the construction phases. It is a credit to all involved, including PSA Project Management in their role as Consultant Project Manager, that the project has resulted in the creation of a world class facility that will improve the health care services for all patients.

[Signature]
Date: 21 May 1997

TO WHOM IT MAY CONCERN

MR. PAUL STEINFORT

I have known Mr. Steinfort, and his company Paul Steinfort and Associates, since 1988 when I was impressed by his generous assistance to final year student who had sought his help. I subsequently spent two months of staff development leave with his company in 1989, and since that time, our association has been of great benefit to myself and the University. Specifically Mr. Steinfort has contributed as follows:

- His company hosted my staff development leave for two months in 1989.
- During 1990 he served on the course development committee which developed the new Master of Project Management coursework degree at RMIT. The course was accredited at the end of 1990, and commenced in 1991. I was a member of this committee and was also the inaugural course leader for the programme. I consider that his contribution to the design and development of this course was invaluable.
- He served as inaugural chairman of the course advisory committee for the Master of Project Management degree course in 1991, and has continued as a committee member to the present day.
- He designed, developed and delivered a subject for the Master of Project Management course, and a subject for the third year of the Bachelor of Engineering (civil) course at RMIT. This third year subject is taken by civil, civil/business, and environmental engineering students.
- He has delivered lectures himself, or through his highly competent staff, at masters and undergraduate degree levels since 1991 and continues to do so. These lectures have been delivered in three departments of the university, namely the department of civil and geological engineering, the department of building and construction economics, and the graduate school of engineering.
- He has donated substantially to RMIT in the form of computer hardware and software, prizes, course advice and development, and innumerable personal student consultations.
- He has provided a continuous and greatly appreciated source of advice to myself and other RMIT staff on current and future directions of project management.

Mr Steinfort's contribution over the years has been substantial, and he has been instrumental in helping to ensure that the project management master and undergraduate programmes remain relevant and reflect current industry practice.

Mr. Steinfort is a thoroughly competent, knowledgeable and effective lecturer, as are his carefully chosen staff who assist him from time to time. His lectures are always professionally prepared and delivered and he carries great credibility as a lecturer, being the principal of a well known and successful project management company. He is absolutely reliable and very highly regarded and appreciated by the staff and students at RMIT. He has a keen enquiring mind and a comprehensive knowledge of project management theory and practice, which he continually updates on a world wide basis. He has the rare ability to relate theory to practice in a comprehensible way for a wide range of audiences.

Mr. Steinfort is highly professional, and of the utmost integrity. I have found him to be totally honest, clear and straightforward in all our dealings, and I have complete trust in his advice. I am pleased to unhesitatingly give him the highest recommendation as a lecturer, course developer or adviser on all aspects of project management.

Michael J. Somers
Senior Lecturer, Civil Engineering
TO WHOM IT MAY CONCERN

For the past two years Paul Steinfort and Associates have been contracted by Target Australia Pty Ltd to provide professional support and skill transfer for all aspects of project management.

The services provided by his company over this period were:

1. Running workshops for middle to senior managers involved in projects in the nine elements of project management, supporting processes and tools used for project management.
2. Mentor support to a range of project managers with issues relating to their own respective projects.
3. Transferring project management skills to a key representative within Target, enabling Target to continue internal skill transfer.
4. Advice and support in setting up a project support centre.
5. Development of a logical process to support Project managers within Target. This has been agreed and signed off at General Manager level.
6. Development of software package for project managers to use in Target. The package aligns to the processes developed for project management within Target and aligns to recognised best practice in project management (ISO 10006).

Advice provided by Paul Steinfort has varied from individual coaching to workshop facilitation and within this has covered all aspects of a project i.e. inception to completion.

As a mentor Paul is very good at transferring his knowledge, with the key representative for Target having been trained to a level where he can sufficiently continue the transfer of project management skills internally. Paul has taught us how to explore and understand project issues and subsequently has challenged the individuals he mentors to think and solve their project problems. On many occasions, Paul has not only brought to our business project management skills, but also helped our people understand the importance applying commercial sense to the projects that we undertake.

Paul has also demonstrated to us how to work under pressure and taught our project managers the importance of standing back, assessing and analysing situations and how to apply project management techniques to find appropriate solutions.

In Target we now have a software package which will be utilised to ensure a consistent proper approach to both the development of project personnel and the implementation of projects.

In summary, Paul has brought to our business a wealth of knowledge and expertise and our relationship with PSA will continue. He has provided us with excellent support and advice for the period we have been involved with him and Paul has demonstrated faultless integrity and an ability to communicate with all levels of management and staff.

Please feel free to contact me directly if you would like any further information to support this reference.

Steve Griffin

Business Project Manager
Target Australia Pty Ltd
MELBOURNE CRICKET CLUB

SOUTHERN STAND REDEVELOPMENT PROJECT

Statement of Service - Project Planning and Management

Provider: Paul Steinfeld & Associates
620 St. Kilda Road
MELBOURNE VIC 3004

Project Details: In November 1988, the Melbourne Cricket Club announced that redevelopment of the M.C.C.'s Southern Stand would be undertaken at a total project cost of around $150m. The project consisted of redevelopment of approximately 45% of the M.C.C. involving a new multi-tiered stand with improved seating and viewing facilities, upgraded catering facilities, restaurants and sponsor boxes.

Scope of Service: Paul Steinfeld & Associates was engaged to provide the following services:
- overall project planning, programming, monitoring and reporting.
- design and documentation planning, programming, monitoring and reporting.
- minute taking at Project Control Meetings to develop action statements and then follow-up with monitoring and reporting of same.
- advising on appropriate contractual strategies.
- assistance in development/refining of novated design construction contract.

...2/
- provision of personnel on site full-time during the construction period to verify adequacy of contractor planning and programming and to monitor and report on same.

- general advice and back-up to the M.C.C.'s Project Manager as requested, including sourcing of capability submissions from services consultants, discussions with, and assessment of, contractors pre-tender submissions.

**Results:**

At each stage of the project, Paul Steinfort and Associates met their committed targets and their pro-active role in programming, monitoring and reporting has ensured strict adherence to a tight project programme enabling the works to be tendered on time.

They also played a significant role in the development of the relatively new Project Delivery Strategy currently in use on this project.

A great willingness to assist as required in other general areas of project management was also demonstrated.

**Summary:**

The Melbourne Cricket Club is more than satisfied with the professional services provided by Paul Steinfort and Associates in the areas of planning, programming, monitoring and general project management advice.

Paul Steinfort and Associates have made a significant contribution towards keeping this complex project on target and the Melbourne Cricket Club is pleased to have had their involvement over the full length of the project.

**Source:**

Dr. J.C. Lill  
General Manager  
Melbourne Cricket Club  

April 1992
26 July 1993

TO WHOM IT MAY CONCERN

RE: PSA Project Management

This is to certify that PSA Project Management has done a conference on Project Management in Singapore. Mr Paul Steinfort, the Managing Director of PSA Project Management was here in Singapore on July 3, 1993. Conducting a one full-day seminar, Paul did an excellent job, delivering lectures on Project Management principles as well as sharing his vast experiences with the attendees. The profile of the attendees were Project Managers, and Executives involved in Project Management.

Paul Steinfort helped advise a group within the Singapore National Computer Board on the principles of Project Management and its application in the software development cycle. As a result of his vision, NCB will take a closer look at his solution and one of the Solution Providers in Singapore will demonstrate the solution this coming mid August.

Please feel free to contact me at (65) 3299410 should you need further reference on Paul. I believe that PSA Project Management will contribute a lot to his clients.

Thank you,

[Signature]

Ang Thang Hin
Product Manager
Microsoft Singapore

Microsoft Corporation is an equal opportunity employer.
18th April, 2006

Dear Sir/Madam,

Re: PSA Project Management - Consultancy Services for the Development of CRE Construction policies and procedures.

PSA Project Management was contracted to provide specialist project management services to Corporate Real Estate in the establishment of the division’s CRE Construction Projects Policies and Procedures manual.

PSA Project were involved in the following areas:

- Development of a single consolidated and agreed policies and procedures manual that aligns with the Project Management Body of Knowledge (PMBOK) and the National Competency Standards for Project Management;
- Review and standardisation of existing policies, procedures and checklists;
- Review and standardisation of templates (Project Brief, Project Management Plan etc), including alignment with other Divisions within Australia Post;
- Review of the existing Gating process, including its relationship with other related Divisions and client groups.
- Development of Flow charts detailing the project methodology, including governance requirements;
- Work-shopped with State and National Project and Construction Managers and liaison with key stakeholders to ensure alignment with their procedures;
- Held training workshops with Construction and Project Managers in the application of the new manual.
- Development of administrative procedures for upkeep of the manual; and
- Identification of clear accountabilities for project activities.

PSA Project played a key role in the successful development and implementation of the policies and procedures manual for Corporate Real Estate.

Peter Bowden
Manager Major Projects and Construction
CISO – Corporate Real Estate
Australia Post
Appendix 2 - 1996 Summary Paper on Above and Beyond Project Management
ABOVE AND BEYOND

PROJECT MANAGEMENT EVOLUTION

INTRODUCTION

This paper is in two parts

1. The Emergent Success Factors in Project Management
2. A Positive Contract

Firstly, the understanding of the benefits of shared goals, delegation, leadership, and monitoring as key driving and motivation factors in a project will be addressed.

This will be explained against the backdrop of findings coming out of the Annual PMI Symposium in Boston and Beyond.

A number of points are self evident, yet are constantly ignored in a number of environments, mostly to the detriment of those projects.

Secondly, in a Contract Environment too much effort has been focussed on negative aspects and divisive legal processes. By incorporation of the key success factors in project management a positive contract can guide people to a problem solving and collaborative path which would significantly improve the average outcome.

THE BOTTOM LINE

The “Bottom Line” of a project will benefit from incorporation of the fundamentals coming out of this paper. The projects that do work to these guidelines should have markedly improved outcomes in time, cost and quality, be better investments with less risk and be more enjoyable to work on.
A JOURNEY IN PROJECT MANAGEMENT AND CONTRACT IMPROVEMENT

1996 Annual PMI Seminars & Symposium and beyond

Boston Massachusetts USA

Theme: Revolutions, Evolutions & Project Solutions

1996 Proceedings 1144 Pages

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214 Papers Total

Up to 14 at any one time period.
FOCUS OF PAUL STEINFORT

After 25 years on the project management main stream I wanted to arrive at a view of the limits and future value of project management. The Project Management Institute of USA (PMI) outdates me in practice in that it was formed 31 years ago and has been holding Annual Seminars and Symposium for 27 years now. It seems a reasonable place to address the question. This year in Boston the PMI played host to over 2,600 representatives from around the world but mostly from the American Continent.

My focus on this pilgrimage was in fact the question of “What lies beyond Project Management?”. Is there something that it will evolve into in the foreseeable future? What is beyond it in two senses of the phrase i.e. what lies further to it and what is beyond it in the sense that project management is not suitable to it?

Answers were found to both questions and I am more than satisfied with the journey and its lessons. Of course, for people outside of my world, it is probably important to understand my view of project management. Project Management is the identifying of objectives, planning, organising and monitoring their achievement within the time, cost and performance boundaries agreed and to ensure or guide their achievements.

We carried out a survey in 1988 of over 100 companies and groups in Australia when project management was not nearly as widespread as it is now. Whilst the outcome of that survey was well publicised many peoples’ pictures of project management had not really focused. Much water has passed under the project management bridge since then and more importantly the use of project management over a significantly broader range of enterprises has proven successful. It was in the late 80’s that I was involved in the course development committee for the Masters in Project Management at RMIT. A key point in my drive for that course was for the “generic” development of a project management course that was not specific, that the principles of project management were applicable anywhere where people were to achieve new goals with limited resources. That key point remains unchanged. The breadth of its success for a spectrum of groups is its foundation.
In the last 10 years we have been involved in “leading edge” developments in project management in both its traditional and non-traditional environments. Processes such as “Novation” and full responsibility contract, fast track programming, detailed design monitoring, the development of computer-based project control processes, training and education have all been part of advancements that have had a very positive impact on the confidence of delivery of a range of projects. Throughout all of this change is a constant and continual improvement as a necessary response.

But there is more to it all than process, delivery methods and systems. And it was from that point that this year has developed for me. The most clear outcome from that reassessing was the development of our new logo and theme “YOUR PROJECT PATH”. The logo stylistically images an objective and a path to your objective - your project path.

Our key role has become to identify with people or groups their key objectives, ensure that they are achievable and then together with them to determine the path to get there and then sit with them as navigator or mentor to help them achieve their goals.

I arrived at this picture before I went to the PMI Symposium but determined to put it on the shelf in cold storage until I came back from the Symposium with what may well have been a differing direction.

It was never an easy decision to go to Boston and neither was it a small investment of my time or resources (also in respect of opportunity costs). But I had travelled 25 years to this point and I wanted to have a very good look at the map. Sometimes one must step back to move forward. And so I did.

The papers presented in Boston were, to say the least voluminous. The particular sessions I attended were sufficient to give me the answers and the direction I needed. The main themes coming through every session I attended were on the fundamentals. The PMI have, over a number of years, developed what some see as the Bible for project management - more precisely known as the “Guide to the Project Management Body of Knowledge” (PMBOK).
It has 12 Chapters

1. Introduction.
2. The Project Management Context.
4. Project Integration Management.
5. Project Scope Management.
6. Project Time Management.
12. Project Procurement Management.

The 1996 Edition has 175 pages containing the collective wisdom of many respected people and organisations and many many years of experience and framework in project management. This framework has become the major reference for project management around the world and whilst it suffers to a degree from American terminology and processes it is a very worthwhile publication.

Further to this, the PMI has established a certification process known as the PMP (Project Management Professional) based on a seven hour exam on all of the above topics. This is a knowledge-based exam. In order to sit for the exam you need to firstly be able to satisfy a process that you have sufficient experience in Project Management.

The topics addressed in this exam are mostly generic but, for instance, the project procurement management which includes contract management has processes in “bid”, “solicitation” and “close out” that are not used in Australia. Terminology and semantics can play tricks with the understanding. I found, ironically, that in one of the areas I was most practised in it was most difficult to move to and agree with the American terminology. In that respect some local factors need to be taken into account in Australian testing in PMP.
The Australian Institute of Project Management has developed Australian Standards for Competency in Project Management and these become quite relevant in the future context of Project Management in Australia.

A prime focus that came out of the symposium was the emphasis on competencies as well as knowledge in Project Management as we are dealing with part theory, part skills in practice. This formalisation of Project Management practice was not the prime focus of my journey. The collective outcomes of the lessons of Project Management in practice in my areas of application was key.

So the fundamentals I was researching were not theory or certification based. They were real life outcomes, ones that I could reference with real life project experiences and project into our future.

The fundamentals that emerged in that context were not a surprise. They were, however, sound reinforcement and whilst nothing I have learnt or developed or lead or put into practice has been wasted, it is to be put in the context of what we too often do not resolve or have recourse to resolve. Equally I would say they have found that in the U.S.A. and elsewhere.

THE THREE PROFESSORS

Perhaps the best summary of this was in a paper jointly presented by three professors. The paper investigated what project managers from around the world perceive to be most important.

The seven factors that emerged were:

1. Goal orientation and awareness of mission.
2. Organisational recognition and rewards.
3. Team participation, shared decision making.
4. Equity, mutual respect, trust, valued partnership.
5. Autonomy, self management, continual improvement, responsibility.
6. Multi-skilled cross training, flexibility, commitment.
7. Support role and atmosphere, human resource emphasis.
A most interesting outcome of the research was the finding that project managers valued the above considerably more than the corporations that support them. That is, the gap that exists between project managers and executive managers is certainly not foreign to Australia.

**A PROJECT NEEDS**

In all the presentations I attended the fundamentals that were seen as essential I can put in my own words and summary. Regardless of the efficiency of the methods, the delivery systems, the processes and the developments, the projects need to have

1. Agreed objectives that are clearly understood by key players.
2. A plan of action that is achievable and sets out understandable and identifiable steps along a path to that objective.
3. The commitment and support of senior most management.
4. An organisation and structure that will enable teamwork, recognition, reward, shared goals, meeting individual needs, emphasis on co-operation and self management.
5. Management style that enables leaders to develop group or individual goals that are aligned with the overall objectives but which can be developed by those leaders and monitored reliably. The project manager’s role is then to mentor, coach and support those leaders in the achievement of those goals. In advanced examples of this, these leaders assess their own performance on an annual or regular basis and present that assessment to their manager for certification.
6. A project framework that enables teamwork. This is a very large development in the U.S.A. where it comes under different headings i.e. Team Management, Management by Objectives, Project Management etc. Microsoft (who have never been slow to recognise a market) will launch, later this year, a software product call “Team Manager”. I have been privy to a Beta version of this product and some documentation and it essentially helps people look at their objectives, break them down into actions, link those actions to team members, see the loading that results, reallocate if necessary and then delegate out and receive monitoring on those from each team member. It is not critical path based, it is team based.
7. A project team approach that enables groups or individuals to maximise their effectiveness on the project and their individual development. Optimum output from a project will be obtained when each person or group is most motivated. The point of motivation needs careful consideration. Money is not necessarily the prime motivation.

8. A project team organisation that matches needs with appropriate skills. Insufficient thought goes into the demands of different project roles and the personal or group skills set that will best perform in that role.

9. Leadership. Eventually leadership is showing people how to get to where they want to be. Where they want to be needs an identification of individual and group goals and accomplishing the alignment of those goals with the project objectives. A significant realisation and development recently is the greater efficiencies brought about by enabling people to achieve their own goals in alignment with the corporate goals. In this framework experienced Project Managers are used much more effectively as coaches and mentors rather than as experienced drivers.

10. Credibility and Reliability. Credibility in leading a project team doesn’t just come with being honest or reliable. It comes with knowledge and skills appropriate to the task. Credibility in a project manager is of increasing importance to the effectiveness of the project, the team and the outcome. A problem solving approach is fundamental - a “we are with you not against you” attitude is the key.

What does all the above mean to my view of project management as it has been and as it should be at its most successful?

MINDSET OR PARADIGM

Well the most outstanding point is a new mindset, a paradigm shift, an evolution in the way we would approach a project and its resources. There has, over many years, been at least an acknowledgment that project teams within an organisation function better with many of the preceding ingredients. Whilst not often achieved in practice the theory has been accepted. It is, however, considerably more challenging to put the above principles to mind in an external contracting environment on large or complex projects.
I think the first mind step to make before doing that, however, is to be honest about the objectives, intentions, and outcome of a project.

If you were to ask any project director, manager or senior manager in the initial stages of a project what is the best outcome for this or any partnership, they would most likely say a win/win - i.e. all parties should be motivated to a good return on investment of resources in the project.

**NOVATION**

Those involved in the original development of, say, the Novation contract of the M.C.G. Great Southern Stand felt that it should be seen to bring about a sharing of objectives amongst agreeing parties in the project. That the problem solving of the design detailing would be shared by the contractor, designers and the principal. (and subcontractors?) Well, the physical outcome on that project within time and cost was fine, but, could the process have been better? The answer for anyone looking at continual improvement is, of course, yes. Possibly the greatest pressures in a direct sense on many such projects are shared by subcontractors and the consultants to them.

But did subcontractors on, say, the M.C.G. share the win/win approach when it came to the crunch? Interesting question. I will not address the answer to that-rather leave it hanging in the air. I want to re-use that point as a bridge to a broader one.

Eventually, because nothing is perfect, we are faced with the trade off of time, cost and quality-the perennial project management balancing act.

In the trade offs, do some parties suffer and, if they do, is that detrimental to the attainment of the objectives of the project? If the project was to enable ongoing win/win for all parties would it cost more? Would it take longer?

The present process for achieving a project is to generally develop a design, estimate the cost of that design, go to the market place and receive prices for that design and hopefully, complete that design as a product at that price.

In receiving prices for that design, various risks are either identified and proceed or are ignored. The lucky (?) contractor that wins the project stays in business that bit longer and then seeks a return by doing that work better or getting cheaper subcontractor prices or seeking extra recompense from the principal.
Contracts under these pressures are becoming complicated machinations beyond the comprehension of the average subcontractor or of the average supplier of parts of the project.

It is a most interesting aspect to ponder that if we sought a simpler path, a clearer path, would the cost necessarily be higher?

**RISK AND THE FINAL OUTCOME**

A factor which needs a lot more attention than it usually gets is Risk. Contracts which develop a very competitive pricing strategy may achieve a very low starting price but submerge, at least temporarily, dangerous risk. The very keen pricing and tendering that is presently being experienced in the market place does not necessarily mean you will get best value for your money on the project. It may mean that a particular contractor has even won the work at no potential profit just to stay in business. In such cases there is an ongoing pressure to recover costs in a variety of ways from the project.

Research over an extensive number of projects in the U.S.A. has shown that a low initial contract more often than not ends up costing more than the next lowest tender. This comes about because of number of factors including:

- a portion of the works can not be completed at the price set.
- the contractor seeks alteration by focussing on problems in the documents.
- the contractor passes of unallocated risk to subcontractors who then find it difficult to continue and in some cases collapse

In some cases the projects are completed at the original price but something is comprised in the process. Or sometimes the project manager or the architect and engineer just work inordinately hard to cover the risk and resolve the problems regardless.

What is not generally understood is that risk can actually surface on a project, if not properly dealt with, and that it could cost the project dearly.

So eventually it is important to analyse the long term desired outcome of a project at its probable cost and face identification and resolution or assignment of risk as a process of necessity.
THE M.C.G. GREAT SOUTHERN STAND PROJECT

The M.C.G. Great Southern Stand remains one of the best delivered projects in Melbourne of recent times. Its contract delivery process was well thought out and executed. But there were some losers on the project. Is that inevitable and is there any alternative?

The responsibility of taking on design/contract requirements on this project was, to some extent, underestimated and misunderstood by the head contractor and more so by a number of subcontractors. The communication and education in that peculiarity was never comprehensive. There were also matters of culture and previous experience in the approach to design problems on that and later Novation contracts.

In its broadest sense, the intention of the Novation contract was to achieve a project contract that did not encourage extra cost claims. That brought about a situation where the design was constructed with the detail problem-solving taken on by the contractor who was pleased with the outcome even if it was not a large profit. The designers? Well it certainly was new ground for them. But, in the majority they saw it in a positive light. The subcontractors? Most fared O.K., some fared well, some not so well. So why the thought for improvement?

THE CARROT OR THE STICK

Well the first question there is, is the best price achieved by containment or by motivation? Is it the carrot or the stick?

The first response is that the best outcome is achieved by commitment and then the question is whether that commitment is to known prices and risk and to reliable times. And who is to say what is the best price? Competition of course. But does competition encourage a hiding of risk or an over-keenness to underprice risks? And how do you avoid this or achieve the real price for a project? Do we encourage efficiencies or risk avoidance?

Eventually it would seem that there is a real material, labour and equipment price for a given project. Whether the quantity surveyor or the contractor achieves this is a variable. The degrees of saving from equipment, methods, resource alignment are also variables. So how do we resolve this conundrum?
TRUST

Another problem to address is one of lack of trust. The designer maybe fearful they will get “screwed” by the contractor—and sometimes with just cause. The contractor is fearful of the designer or the project manager of the principal. Some contractors evidence a “claims” mentality. Some designers have a minimal responsibility approach.

Well, Novation did improve all that, but it’s a long way from perfect. What is the next step?

THE KEY SUCCESS FACTORS

The key success factors in any project contract are to have shared objectives and the opportunity for gain for the partners to the agreements. Now, these objectives need to be defined and owned at each contracting level and for each party to the contract to have the opportunity for gain. What can tend to happen in some forms of partnerships is the head contracting partners resolve what they think are their key objectives and motivations and the contract proceeds on that basis. The secondary or sub contracting parties then are not contracted to those objectives. As this secondary contracting (which the delivery of the project may be absolutely dependent on) expands so does diffusion over objectives and consequent commitment to the desired project.

Key Points

It has been found over a large number of industries that projects run more effectively, produce more quality and take less resources if key participants.

- understand the objectives of the project.
- understand their roles in achieving the objectives.
- are motivated by and committed to the project.
- have been shown goals for the project.
- feel they have something to gain from the project.
- have some form of investment (not necessarily monetary) in the outcome of the project.
- have core competencies necessary for the project
- work in an environment that encourages problem solving
- are rewarded for effort / outcome
- have authority and responsibility
Significant savings in time and cost can be achieved if these factors are in place. This has been proven time and again in enterprise, corporate or internal projects.

Yet these learning’s have not been implemented in construction contracting projects in Australia.

The standard contracts for construction projects do not foster the above points. In fact, they tend to focus people into negative or polarised positions which can actually work against the achievements of the overall project objectives. The usual Principal to Head Contractor or Designer and then Head Contractor Designer to subcontractor process defines boundaries for packages of technical work and often does not even address the identification of common objectives. Neither does it identify what each party feels they can gain from the project (other than potential profit for risk) or any additional skills they can contribute, neither does it set overlying objectives or a project charter.

Overlying objectives can be constructively used to resolve detailed conflict problems. A good example of this is in the use of a design brief (i.e. a set of design objectives) in a Novation Contract. It has been a positive experience when matters of detailed design come into dispute to refer to the design brief or design objectives to resolve the problem. In the vast majority of situations this has been achieved.

This set of objectives for design should be extended to further sets of objectives for management, process, problem solving, correspondence and possibly even outcome of investment.

**A POSITIVE CONTRACT**

Project Contracts presently focus on the technical requirements of the project and are dominated by clauses that address negative processes in detail in contract containment or dispute resolution. This can be very limiting in any project and can tend to focus people in the wrong direction.

A real positive that emerged with Novation was the “Design Brief”. This is basically a document setting out the “Design Objectives” for the project - which become an agreement or a set of shared objectives for the technical design requirements of the project. What has proven very valuable in the resolution of conjecture over the intent of the drawings or specifications in these contracts is the ability to refer to the Design Objectives (or Brief) to resolve disagreements. By referring to the positive points of what has been agreed to achieve, people become focused on solving problems rather than negatively drawing sides and disputes.
This finding can be extended to encapsulate further objectives that may be just as relevant to the satisfactory achievement of the desired outcome for a project. So as well as a Design Brief (read objectives) one may need Management Objectives and/or Cost Minimisation Objectives and/or Quality Objectives and/or Process Objectives and/or Risk Minimisation Objectives and/or more.

These objectives can be arrived at through a given process. This may be started prior to the full detailing of the contract. What is to be brought about is the sharing of objectives over both the technical and the process in all intended outcomes of the project.

The objectives should also cover a strategy for achieving each of the objectives. This may be dealt with in the way a Novation contract deals with the development of a final detailed design, i.e. by a process set out in the special conditions of contract.

**THE SHARING OF OBJECTIVES THROUGH A CONTRACT**

The commitment to and sharing of objectives through a contract is not new. However, the tendency in the past has been to focus objectives on the obvious, the technical, and expect that all of the rest takes care of itself. That the management of the contract will be effective enough in itself to deal with all the unidentified risk, uncertainty, human error, insufficient design and all else that may happen. If it is not a path for contract resolution, dispute and hopefully resolution will be apparent. The reality these days is that there are an awful lot of contract disputes and claims happening. The other reality is that risk does not necessarily decrease with a more complicated contract. The way to decrease risk is to face it and resolve it wherever possible and therefore a contract should encourage that process.

To focus on a range of objectives throughout a project with a consequent detailing of subsets and step wise definition of the steps necessary for those objectives is a considerably more effective way of carrying out a project. The sharing of these objectives between contracting parties with potential for each new contracting party to contribute to those objectives in such a way that it adds to their commitment and investment in the project is a very strong motivator on any project. To enable this in a legal contract framework and to set out a process by which, firstly, those objectives are evolved, shared and detailed, and then to encourage reference back to those objectives whenever a problem arises, is the need of an improved form of contract.

The sharing of objectives can then be carried out at different levels of the project. i.e. between the principal and the Head Contractor, between the Head contractor and the sub contractor and even between contractors and staff.
Thus, ownership of the project can be motivated at all levels of the project. Motivation, a positive attitude, problem solving and teamwork can bring about a considerably better project outcome in less time and at least cost with better quality.

OUTPUTS FROM PROJECT PLAN DEVELOPMENT

- Project charter
- A description of the project management approach or strategy (a summary of the individual management plans from the other knowledge areas.)
- Scope statement, which includes the project deliverables and the project objectives.
- Workdown breakdown structure (WBS) to the level at which control will be exercised.
- Cost estimates, scheduled start dates, and responsibility assignments to the level of the WBS at which control will be exercised.
- Performance measurements baselines for schedules and cost.
- Major milestones and target dates for each.
- Key or required staff.
- Key risks, including constraints and assumptions, and planned responses for each.
- Subsidiary management plans, including scope management plan, schedule management plan etc.
- Open issues and pending decisions.

Other project planning outputs should be included in the formal plan based upon the needs of the individual project.

Supporting detail for the project plan includes:

- Outputs from other planning processes that are not included in the projects plan.
- Additional information or documentation generated during developments of the project plan. (eg. Constraints and assumptions that were not previously known).
- Technical documentation such as requirements, specifications, and designs.
- Documentation of relevant standards

This material should be organised as needed to facilitate its use during project plan execution.
FORMS OF CONTRACT

Forms of Contract are continually evolving. (AS2124) Australian Standards Conditions of Contract is now the most widely accepted. We have been working with this form of contract for 16 years and feel it addresses the containment of a well-defined project. That is, if the objectives are adequately defined. But it can be made more positive and co-operative.

AS 4300 - Australian Standards General Conditions of Contract for Design and Construct, whilst not widely accepted as AS2124, can sit with a Positive Contract.

Of considerable relevance and very much in line with the direction of our findings is a “New Contract for Construction Projects” development in N.S.W. It is called the “C21 Construction Contract Conditions” and is intended to replace traditional contract adversarial relationships.

We find we have a shared goal with the drafters of this C21 contract who wish to have a less adversarial more co-operative contract. However C21 only goes part of the way. It does not address the inclusion of key success factors into the contract neither does it fully address matters of importance.

C21 seeks co-operation in achieving cost, time and quality goals and works in plain English.

A NEW CONSTRUCTION CONTRACT

Another contract, now with a track record, that addresses a positive approach in plain English in a major development of the Institution of Civil Engineers London, “The NEC Engineering and Construction Contract” 2nd Edition. (NEC standing for New Engineering Contract). This contract is claimed to have been used on over 3000 projects.

This contract brings about an obligation of parties to act co-operatively and in good faith. This is coupled with procedures designed to stimulate good management. Evidence suggests this has lead to less dispute and better project outcome.

CONTRACT OBJECTIVES

The key to contract structuring of a “Positive Contract” is to identify the objectives for the project at a “Principal” level and then to have a process that achieves shared goals within these objectives at the contractor, designer and subcontractor level. These shared goals should also incorporate key goals of the contractor, designer and/or subcontractor.
THE DRIVING FACTOR

The benefit of having incentives or goals identified by the key players is that it can greatly increase their motivation and their driving factor. Remember it has been found that in group projects, efficiencies, economy and quality are greatly increased by strong motivating factors and the acceptance of responsibility for goals. This can apply even more so in contracts.

INNOVATION

Contracts can also provide for or encourage and frame design of technical innovation. Because of the negative focus of some contract developments parties can be discouraged from innovation which may otherwise have been a positive benefit of saving to the project. It is therefore productive and positive to enable innovation through the contract framework and process. An example of where this has been addressed is in C21 Clause 46 “Assessment for Innovation”

THE KEY INGREDIENTS

The key ingredients for a positive development not presently included in the current normal contract are:

- A project charter including Project Objectives
- A Scope Statement, and Scope Management Plan
- (WBS) A Work Breakdown Structure
- A Communication Plan
- Constraints and Assumptions
- A problem solving direction
- An agreed monitoring process for:
  - Project Relations
  - Claims and Issues Resolutions
  - Time cost and Quality combined
- A process for developing shared goals with Principal and consequent contracting parties.
- A process for identifying key investment factors (not only financial) for Principal and consequent contracting parties.
- A resolution process that does not quickly become adversarial.
- Reference to a paramount document which defines key objectives in an extension of the design objectives (of design brief) in the Novation Contract.
RELEVANT FRAMEWORK

AS2124, C21, AS4300 or other forms of Standard Contract conditions can be used in a Positive Contract. A developed process for identifying and agreeing key objectives and then forming shared goals with ongoing contracting parties is available.

A Project Charter as defined in the PMBOK guide needs understanding and can be put in place.

A process also for developing a communication plan, a work breakdown structure, identification of key risks, constraints and assumptions also exists and can be put in place. An outline example of this process will be illustrated at the workshop. Special clauses that focus problem solving ahead of disputation are available. Examples of this are clauses 6 and 46 of C21.

Also a broader monitoring of key aspects of the project in addition to the usual time and quality monitoring is very well presented in Attachment 1 (pages 62 & 63) of C21. This monitoring of Time, Cost, Quality, Project Relations, Communication, Claims and Issue Resolution is a very good development.

There are also improvements possible in subcontractors’ input, commitment, performance and relationships as evidenced by clause 34 of C21.

The development of a paramount document of project objectives (or Project charter) as an extension on the design objectives (or design brief) is obviously already in use.
SUMMARY

In summary it is not a big step in practice to achieve a positive contract. It is not necessary to move away from existing contracting practice rather, by key focussing and monitoring frameworks, to move to a considerably more efficient and motivating one. It is certainly worthwhile working to achieve this outcome because the gains in efficiency, outcome and industry practice will be considerable. It is also seen that there could be significant savings in time and cost on any project. It could prove a very popular and mutually rewarding innovation.

Whilst the contract is covered in general, all details necessary for achieving the successful implementation of a positive contract are not set out in this paper. Insights into the process of developing the objectives, the charter, the risk mitigation, the communication plan and the general starting framework will be discussed at the presenting of this paper. The application on a given project will be addressed for that project at the suitable time.
Appendix 3 - Project Management Training Manuals
Aim

After completing this topic you should be able to have a straightforward understanding of the overview of project management. Your understanding should cover key components and phases of project management and its lifecycle and be able to see when to apply project management.

In a general overview situation you should be able to define key phases in a project management lifecycle and understand the process of defining, planning, implementing and completing a project. Whilst integration of all topics of scope, time, cost, quality, human resources, communication, risk and procurement will be dealt with in detail in Topic 10, you should have a basic understanding of the integrating effect of the key phases of define, plan implement and complete in a project.

The introduction provides an overview and general context for when, where and why people are required to use project management processes. Examples of different types of projects, both small and large, that require project management skills will be used to put the theory into context. This topic highlights that project management is made up of a number of discrete elements, which will be investigated in more detail in Topics 2 – 9. Topic 10 integrates these elements and provides participants with an opportunity to combine and apply project management, as a single discipline, to a project in their workplace.

Learning Objectives Criteria

At the end of this topic participants should be able to:

1.1 Describe the components of project management

1.2 Identify situations that require a formal project management approach
Overview

Project management differs markedly from traditional management in a number of aspects but clearly in the level of clarity and focused application of its key processes.

It engenders very much from a holistic approach but then is very clear in defining each of the consistent parts of the project and then relating them in a clearly connected way back to the whole. It is remarkable in that it can relate the whole to the part and each part to the whole.

This gives a project manager considerably better planning, management and view of the project as it is progressed through each of its life cycle phases of defining, planning, implementing, and completing.

The general project management process is not often clearly understood and it is this we will address from the outset. We will start with a picture of the whole and then look at the parts in detail and then conclude by looking at the integration of the parts back into the whole with full view of the components to be integrated.

Topic 10 will deal with the total integration of all topics in process example and working assignment but with Topic 1 we will overview the key parts and processed to integrate.

The key to project management is that to have a successful project you will need to develop and agree on a Project Plan and then implement it. In order to develop the Project Plan you will need to understand the key phases to initiate and Define a Project and then to Implement and Complete the project.

In order to do the above you will need to understand the following processes:

1. Define
2. Plan
3. Implement
4. Complete

These are basically the key steps in the lifecycle of a project with the first of these being the International Guide to the Project Management Body of Knowledge (PMBOK)®, the (Australian) National Competency Standards in Project Management (NCSPM) and AS / NZ 3905 Quality in Project Management.
These all deal with the same process but use slightly different terminology. For instance the PMBOK® outlines the project life cycle as:

Initiating Process (Define)
Planning Process (Plan)
Executing Process (Implement)
Closing Process (Complete)

We will explore these integrating processes and define them clearly and in standard terms. All processes will be faithful to the PMBOK, NCSPM and AS/NZ 3905 and will correlate them so that any gaps between these publications may be addressed and understood.

All of these publications deal with the same components of the integration of project management as categories or units being:

- Project Time Management
- Project Cost Management
- Project Quality Management
- Project Human Resource Management
- Project Communications Management
- Project Risk Management
- Project Procurement Management
- Project Integration Management

This topic defines project management, its applications, context and processes and when it should be used. The following topics will detail these processes and through examples, put it into context to ensure understanding of each unit's application. The final topic of integration will then serve to bring it all together and make it clear in application regardless of the industry it is to be applied to.
1.1 Learning Objective Criteria - 1

To describe the components of Project Management

“Agreed project phases, approval points and review points are implemented to accommodate all project management function requirements.”

“The project plan is developed, based on requirements of project sub-plans, agreed by higher project authority and implemented as the basis for project management.”

“Designated project control mechanisms are implemented to accommodate change throughout the project life cycle.”

The General Project Management Process

First let us define what a project is

A project is defined as an agreed process undertaken to achieve a unique and common objective defined for specific requirements including constraints on time, cost and quality and involving elements of risk, human resources, communication and procurement.

Project Phases

Because projects are unique undertakings, they involve a degree of uncertainty. Organisations performing projects will usually divide each project into several project phases to provide better management control and appropriate links to the ongoing operations of the performing organisation. Collectively, the phases are known as the project life cycle. Each project phase is marked by completion of one or more deliverables.

The Project Life Cycle

A project passes through a number of distinct phases or stages, from project conception, through project execution to project completion. These phases are known collectively as the “Project Life Cycle”.

At its highest level and as set out in the PMBOK® in the Chapter on Project Integration Management, project management involves the development of a project plan, the implementation of that project plan and control processes to guide both.

A project plan is not just a bar chart as commonly thought. It is the scoping and planning of all key issues of the scope, time, cost, quality, HR, communications, risk, procurement and integration (the nine categories of PM).

This is a document to be developed and agreed with all key stakeholders and then implemented and controlled.

**To implement an agreed Project Plan is the key to the Project Management process**

You need to go through a process of steps to first achieve agreement of the project plan. This process brings into play each of the nine categories of project management previously referred to.

Too many projects and project managers try to implement project plans that have not been properly developed or do not follow an agreed process. The result is predictably not a good one and it is usually due to the failure to understand the process that causes this in the first place.

**A Project Plan**

First, it is necessary to understand what comprises a project plan.

A Project Plan is defined most simply by Australian Standards AS / NZ 3905 as a “Document setting out what is required to meet the objective(s) of a project”
A project plan will include key aspects of all nine categories of project management (scope, time, cost, quality, HR, communication, risk, procurement and integration) previously referred to.

Developing a project plan involves considerable work and key resources and as such should not be underestimated. In order to apply the necessary project management resources to develop a project plan most projects start with an initiation process (Project Charter) which then gains authorisation of the resources necessary to achieve a “Project Plan”.

This “Project Plan” then needs to be implemented and successfully completed. The four phases of project management are as the graphic depicts below. Each of these is guided by controlling processes.

**Project Management**

![Project Management Diagram](image)

**Define and plan the Project (Develop Project Plan)**

The first two life cycle phases previously referred to as Define (Initiation) and Plan (Planning), are required to achieve a Project Plan (Charter) and work towards its agreement (signoff).

To Define the project you need to Initiate the project and then to Scope it.

The steps involved in these processes are summarised below and involve all categories of PM (the nine previously referred to).
Define

Project Charter - Project stakeholders are identified with guidance of higher project authorities to determine the influence of others on achievement of project outcomes.

It includes the following information:
- Background (reasons & opportunities)
- Project Goal (succinct & clear)
- Key Stakeholders
- Related Projects
- Project Selection Criteria
- Constraints & Assumptions (become key risks)
- Risks

Project Scope - The scope of a project comprises a combination of the end products of the project and the work required to produce them. Scope management involves the initial justification of the project and initial project start-up, as well as the ongoing definition of deliverables, objectives and constraints. Project scope forms the foundation of the project plan and the basis from which other related plans are developed and the focus of their integration.

It includes the following information:
- Main Phases
- Work Breakdown Structure (W.B.S.)
- Time Objectives
- Cost Objectives
- Quality Objectives
- Human Resources (constraints, key or scarce)
- Communication (communication (organisation structure) requirements monitoring or reporting)
- Risks (identify key risks to project)
- Procurement (particular sourcing or contracting needs (main aspects of delivery))

Plan

Project Plan - A formal, approved document used to guide both project execution and project control. Its primary uses are to document planning assumptions and decisions, to facilitate communication among stakeholders, and to document approved scope, cost and schedule baselines.

It includes the following information:

Time
- W.B.S (each main phase or principal work activity)
- Key Tasks/Activities (for each phase of W.B.S)
- Durations (for each task/activity)
- Dependencies (that exist between tasks/activities)
- Develop Gantt Chart
PSA Project Management

Topic 1 - Overview of Project Management

Human Resource
- Human Resources (resources needed for each task/activity)
- Resource Demand (overall demand for resources)
- Check Resource Constraints/Availabilities

Cost
- Review Project Cost/Objectives
- Cost Plan (finalise)

Risk
- Update Risk Table (including additional items coming out of above)
- Incorporate addition of action steps from the Risk Assessment

Quality
- Quality Plan (clarify & finalise)

Communications
- Communications Plan (clarify & finalise)

Procurement
- Procurement Plan (clarify & finalise)

Change
- Overall Change Control (scope change control, time change control, cost change control, quality change control etc.)

The Project Plan development involves processes from each of the 9 topics of project management to be dealt with in this subject typically the earlier planning steps of each category.

These key phases involve authorisation and then scoping and planning.

Achieving agreement or signoff to the project plan is then the key step necessary before implementing the project plan. We then formalise the implementation of the project plan and follow it through using control processes.

The implementation of the project plan and its successful completion involves processes again from each of the categories and typically the following implementation and control processes.

This will clearly set out the following chapters but, fundamentally, the items identified in the project plan in all categories will be implemented and each of these monitored and managed accordingly.

The Project Plan is clearly the key document for a successful project to be implemented and you first need to see the key components of this.
Summary

In summary the development of the project plan incorporates the following steps.

Define

- Project Charter

Outline Background  →  Define Project Goals  →  Identify Key Stakeholders

- Define Project Selection Criteria  →  Identify Related Projects

- Identify Constraints & Assumptions  →  Define Risks

Project Scope

- Define Main Phases  →  Outline Time Objectives  →  Outline Cost Objectives

- Identify Human Resources  →  Outline Quality Objectives

- Define Communication  →  Define Key Risks  →  Define Procurement Needs
The Implementation of the plan and the monitoring and control of it is the second of the two key steps in project management.
Project Example

Throughout this course and each of its topics we will refer to project examples. They will provide a clear context and understanding of what each topic contains and how it would look on a real project. Some of the project examples are reproductions of project management from an actual project, while other examples are fictional but borrow heavily from real projects. In all cases the project example will be instanced to give a relevant example and is to be used as a guide for your own development.

Activities will follow these examples to consolidate smaller pieces of learning to the workplace and provide preparation for the assessment tasks.

You will be asked to develop a Project Charter and Scope document as part of topic 2 and you will need to do this before being able to prepare a Project Plan document. The Project Plan document will incorporate issues from each of the nine categories or topics following and then you will be asked to integrate a project plan from each of those parts.

At this stage it is only important that you understand the overview of the parts of the Project Plan (Including the Charter and Scope) and that this will incorporate planning issues from each of the nine categories to be dealt with by topic in scope, time, cost, quality, human resource, communications, risk, procurement and integration.

You may, in time, wish to extend this whole workplace assessment as evidence for the qualification of a registered project manager as provided by the Australian Institute of project management and this is written to facilitate that direction.
Professionalism

Professional project managers are in growing demand in a large range of industries. The need for organisations, groups and teams to agree on their objectives and to set a plan to achieve them is becoming a major focus. In a rapidly changing world these organisations are realising that they need to utilise project management to maximise the value of their limited resources.

The growth in demand for project managers has coincided with concerns for the identification of adequate standards and formulation of a knowledge base.

Presently anyone can call themselves a project manager and that has the potential to diminish the standing of the profession. The Australian Institute of Project Management (AIPM) and the Project Management Institute (PMI) are working to provide a number of ways of assessing and accrediting credentials in Australia.

The Boards have decided to assist their members, and others, in sitting for the Project Management Professional (PMP) award. This provides those working in the project management field with a method of demonstrating their knowledge of the Project Management Body of Knowledge (PMBOK).

The AIPM has the Reg PM award which is based on competencies over the whole range of Project Management categories. The assessing of these capabilities in the area of applied skills and knowledge is carried out to the National Competency Standards in Project Management.

This should incorporate understanding of the knowledge element proven by the PMP certification.

The National Competency Standards in Project Management

Design of the Standards

The standards have been developed to apply across a range of industries and enterprises and are thus cross-industry standards, allowing each industry or enterprise to generate specific competencies for its own use if it so desires.

The National Competency Standards for Project Management have been designed to:

- Be simple to understand and straightforward to use, and
- Cover the range of competencies which project managers and project team members need to do their jobs
The design of the standards reflects:

- Input from Australian Industry
- Key competencies defined by the Mayer Committee
- The framework developed for the Project Management Body of Knowledge by the Project Management Institute in the USA, and
- The behavioural competencies identified and documented in the Body of Knowledge developed by the Association of Project Managers in the UK

The nine Units of Competence outlined in the standards reflect the main functions of project management and the key processes required to integrate them.

Each of these nine Units of Competence has been broken down into a number of elements which contain those criteria and data which can be formally assessed. Each element covers a function or process of project management.
Activities

1.1.1 Outline the two most key steps in project management?

1.1.2 Define what each of these involve in summary?

1.1.3 Outline the nine categories of project management?

1.1.4 Explain in a simple sentence how these categories relate to the key steps outlined in your answer to question 1.1.1?

1.1.5 In implementing your project plan which of the nine categories of project management do you monitor and control?
1.2 Learning Objective Criteria - 2

To identify situations that requires a formal project management approach

What is a Project

A project is defined as an agreed process undertaken to achieve a unique and common objective defined for specific requirements including constraints on time, cost and quality and involving elements of risk, human resources, communication and delivery.

In this context you need to be able to decide when to apply project management.

Firstly, there are different types of projects, small and large, that require project management skills or would benefit from their application.

Projects are generally one off activities that have been done to achieve the unique and common goal. This is the first test for a project, is it once off or unique?

The next test is does it have a common objective amongst a group? Project management is very much a team or group activity. It involves the co-ordination of resources to achieve a unique or common (agreed) goal.

So the next test is does it involve multiple resources?

The next test is does it have constraints on time, cost and quality?

The next test is does it involve elements of risk, human resource, communication and delivery?

If your project in question pulls up a yes to all of the above then it qualifies for the final test and that is will its application bring about better outcomes in terms of time, cost and quality.

The Purpose of Project Management Systems

In simple terms, the purpose of project management is to:

- Break a project into a manageable process, to communicate and agree the objectives and requirements of a project
- To identify the key targets
- To set those key targets to a time plan
- To identify the resources required
PSA Project Management

**Topic 1 - Overview of Project Management**

- To test the feasibility of the plan
- To have a model that predicts the project time, cost and outcome before it is fully committed to
- To identify key aspects of risk, human resource, communication, procurement and quality to be dealt with
- The communication to all key participants the plan and commitments required
- To receive efficient feedback on the progress of the project
- To enable team-work and organisation
- To enable efficient review of the achievement (or likely) of the project objectives at any time
- To enable an effective monitoring system to view all progress resource cost and quality effects
- To enable successful outcome of a project
- To empower people to achieve together what they could not otherwise do

**The History and Evolution of Project Management**

Project management has a long history. The Gantt Bar Chart the most used tool in project management was introduced in the 1800’s and with the Critical Path Method has been used successfully on major engineering and defence projects for half a century. Project management principles have contributed to the success of projects such as:

- The Suez Canal
- The Snowy Mountains Hydro electric Scheme
- The Rialto Tower complex
- The Melbourne Cricket Ground Great Southern Stand
- Major IT development, and
- New business initiative
Common Principles across Industries

Over the last half of the century, greater numbers of industries have recognised the benefits of project management methodologies, including:

- IT
- Resources
- Mining
- New technology
- Telecommunications
- Marketing
- Finance
- Education and research
- Sports

Each industry has slightly different adaptations but the same basic principles apply to all.

Successful Project Management

A successful project is one which is completed on time, on budget to the quality and performance objectives specified by the project owner.

A Whim and a Prayer

If a project is poorly thought out or started on a "whim and a prayer" it can lead to disaster for all involved. A project needs to be properly conceived, planned and controlled if it is to have a reliable outcome.

All stakeholders should be agreed on the concept and objectives of the project. They need to understand the time and costs involved, the resource requirements, the risk of failure and the chances of success.

Project Management in a Technical Environment

Possibly one of the greatest threats to the successful management of a project exists in technical environments.
Technical vs Project Management Expertise

In a technical environment, professionals often confuse their expertise in a particular area with expertise in project management. They have completed complicated projects successfully in the past mainly because of their superior skills and knowledge in their particular area of technicality. Because of this knowledge they had applied project determination without realising it and without a planned procedure. They knew intuitively which plan to follow without setting it out for all to see.

Larger Projects, New Demands

However as more complex or changing objectives evolve this process eventually leads to lack of communication and coordination between groups. Team effort is diffused and group direction becomes a guessing game.

Professionals who fail to discern between expertise in their field and sound project management techniques can end up in a less than professional position. It is imperative for the professional to know and understand the project management process, its forms of control and how to make it work to their advantage.

Project Management in the Management Environment

If the "technical environment" has its problems with project management so too do the managers.

Need to Understand the Process

Managers, technical or otherwise, need to understand the basic processes of project management. They need to understand the demands proper project management places on them in terms of:

- Decision making
- Management support
- The need to ensure money supply
- The need to keep customers up-to-date with the time plan

Teamwork

Project management requires a group effort. The success of a project can be as much the doing of an executive, as an engineer, as a project manager. It can be a satisfying effort with profits to match.
Activities

1.2.1 What are the six basic tests of a potential project to apply before deciding whether to apply project management?

1.2.2 Apply these questions to a project(s) you intend to use as a workplace assessment for this subject and if it qualifies outline in brief / summary response to each of the six questions why it qualifies.
Appendix 4 - SSM / Rich Picture Sum Collection Including Layering
Appendix 4 - Rich Picture and Layering – 11 pages in total

Stakeholders / Vision / Shared / Led

- Organisation
- Planning
- Communication Process
- Commitment
- Action
- Sustainable Outcomes

Goals
- Stakeholders
  - Develop Trust
  - Communicate through project scoping, stakeholder engagement, project planning, monitoring and evaluation

Common Vision
- Need to understand how community interacts, traditions

Communicate
- Systems of planning should be locally integrated and communicate effectively
  - Engage appropriate staff with appropriate character
  - Assessment needs common sense and empathy

Feasible Planning
- Use practical indicators for M & E

Manage with Method
- Manage with simple PM methodology

Monitor and Evaluate
- Risk Management is essential – need to educate
- Work with achievable milestone planning / risk management

Resource / Contract Risk
- Project system for planning and managing agreed outcomes should be simple but effective and easily understood by field and local staff
- Keep a balance between progress and accurate timely reporting

Sustainable Outcomes
- Sustainable Outcomes will only come in disasters if you have good people, you have a feasible plan agreed with project methods / capable resources

Assess, co-ordinate, validate, crystallise plan / methods, resource capable work with community
- Basic Project Management will be effective here as it is anywhere as long as it is set up and communicated effectively in local and group understanding and within vision / goals to plan and sustainable outcomes
- Resolve policies and procedures for integration of necessary integration of all
- Work through each of the levels of the project resolving achievable goals with understood methods and contract risk sensibly and effectively
Appendix 4 - Rich Picture and Layering – 11 pages in total

- Vision / Shared / Led
- Communicate / Progress
- Coalition of Change / Values
- Synthesise Lessons
- Critical Success Values / Planning
- Sense of Urgency / Progress Monitoring
- Vision, Plan & Achieve Sustainable Outcomes

Community is essential stakeholder, at village, subdistrict and district level
Government is essential stakeholder
Donor is essential stakeholder
NGO is essential stakeholder
School is gateway to community
Capacity building for staff
Key is in livelihood

Stakeholders
Key driver: to save lives / improve civil society

Communication
Need Vision of professionalism in Community

Community Participation / Awareness
Gender issues – need to push for more female input in planning

Vision of Professionalism in Community

Education of Communities
Aim to get community to put into their process
Learn from what other districts have done

Programme Planning & Management / Performance
Same Basic Project Management works here as anywhere CSF’s and risk – S.M.A.R.T. Milestone / Contingency. Management is the key to PM

Monitoring & Evaluation – D.I.P. / KAP to Programme
Effective Disaster Risk Management combined with Community Leadership and Education is Key

Resolve and Achieve Resilience / Sustainable Outcomes
Community need to be able to access funds and resources
Appendix 4 - Rich Picture and Layering – 11 pages in total

Disaster can be potent force for change, response can create goodwill, positive change (Changing Minds – Gardner)

People are the key – Leadership / Key people need to be Disciplined, Able to Synthesise, Creative, Respectful, Ethical (Five Minds for the Future; How, Gardner)

Enact financial management and empower local performance management strong link with planning

Bring all planning together with budget

Develop Competence

Quick assessments

Change Environment

Organisation / Respect

Good Governance Framework

Leadership – Shared Vision then Authority

Planning / Financial Management / Competence

Performance Management / Time Management

Good Communication with Communities

Resolve and Achieve Sustainable Outcomes

Planning needs to take real logistics into account and avoid corruption

Project Management is towards and ends and needs responsibility & authority

Get Community and Industry to work together

Main breakthrough is community driven approach
Appendix 4 - Rich Picture and Layering – 11 pages in total

Stakeholders
- Vision Shared
- Communicate

Practical Plan
- Manage for Transition
- Tight Project Control
- Local Capability / Integrity
- Sustainable Outcomes

Find reliable people in local community
Assess & Develop Trust
Find out how effective leadership is and what is best for community

- Define / Manage feasible plan together agree expectations to sustainable outcome
- Need good project scoping, planning, systems, engineering, cost & quality control

Communicate vision / agreed goals effectively, regularly and reliably
NGO's should not come with their fixed agenda and over promise but manage expectations together with community and donors / governance

Plan with practical experience and input to manage but with very tight control to minimisation corruption and enable outcome workable with community

Resolve suitable design / construction and act quickly and effectively so can manage adjust locally without loss

Need Programme Monitoring and Evaluation to address how to achieve key system of 1. Urgency 2. Control 3. Governance and each project level

Fairness / perception / good judgement / practical resolve
Manage with authority and respect
Process good communications with tight control
Employ Sound Quality Practices

Key people & systems should have practical PM, find balance in culture

Work with empathy in with local community / donors / NGO's / Gov't

Logistics?
Audit?

Need systemised project system – should be “super cut and dry”, simple & effective at all levels

Review local leadership project management to avoid conflict of interest / corruption
Understand, Involve, Sustain, Learning, Localised, Training

Westerners have heart and talk which is bigger than the head that follows? Achieve

Community focussed approach with Donor / Govt relationship effectively to achieve sustainable communities
Appendix 5 - Peer Review Workshop Six Page Agreed Validation Summary
Rapid Assessment

Key words; Environment - the natural world, especially as affected by human organisation / activity Organisation - an organised body of people with a particular purpose, Purpose - the reason for which something is done or for which something exists, resolve or determination, Programme - A broad effort encompassing a number of projects and/or functional activities with a common purpose.

Factors for Rapid Assessment

1.1 Environment Background / Context (Urgency)
1.1.1 Environment (Political, Power, Nature, Technical, what may / not change, givens)
1.1.2 Background (Needs, Requirements, Context, Value and local / personal values)
1.1.3 Stakeholders (Values, Culture, Vision, Leaders, Client)

1.2 Programme Purpose
1.2.1 Key Objectives (short and long term balance)/ Value / Priorities
1.2.2 Assumptions / Constraints / Risks
1.2.3 Necessary Inputs, Resources & Overall Cost Estimates (appropriate order of accuracy)
1.2.4 Sustainable Strategies and Values (refer to Stakeholder Engagement process)
1.2.5 Outcomes (Project Long Term Goals) / Impacts (long term sustainable?)
1.2.6 Indicators (Key Criteria or Scoring for Evaluation) for Effective Governance.
1.2.7 Key Milestones (time & performance, realistic contingency to key targets)
1.2.8 And Programme overview
   1.2.8.1 E.g. Activities (comes from WBS / Programme Plan Breakdown)
   1.2.8.2 Inputs (from activities / WBS ) incl. Resources (from activities / WBS)
   1.2.8.3 Outputs are deliverables on given projects which make up the Programme we are addressing - What realistic and agreed targets can be put in place?
   1.2.8.4 Overall Time and Cost Budget and Contingencies (percentage allowance) and contingency into those targets to be able to achieve the long term sustainable.

Key Factors for Rapid Assessment

- Environment - Background, Context, Culture, Values
- Programme Purpose – Key Objectives / Value, Sustainable Outcomes, Criteria

Effective Evaluation ongoing throughout the programme comes from agreed statements measures / criteria for Value, Programme Purpose, Goals and Sustainable Outcomes
Stakeholder Engagement

Key words: Stakeholder - a person with an interest or stake in the organisation, Culture customs, institutions, and achievements of a particular nation, people, or group. Values - A principle, standard, or quality considered worthwhile or desirable.

Primary Factors

1. Programme Purpose Stakeholder Needs Analysis Scope

1.1. Stakeholder reference group to help define value, goals, methods of recording stakeholders, their cultural artefacts, level of interest, expectations, their level of influence and impacts on individuals as well as groups.

1.2. Stakeholder Influence chart – resolve key values, criteria, strategies culture of stakeholders, with power / relationships / influence / mix / agendas and individual drivers identified and understood.

1.3. Key stakeholder / key resource understanding of the Scope (boundaries) – value goals / objectives with a clear and agreed statement of outcomes defined.

1.4. Define and agree project goals - project scope. Along with project champion & leader. Facilitate group input and diversity of insights for building a credible solution and develop stakeholder & team understanding of long & short goals.

1.5. Outline Governance Process – Key Macro to Micro Process and Evaluation Criteria

Key Add Factors for Stakeholder Engagement Scope

- Stakeholder Needs Analysis Scope (may be in table / matrix form)
  - Effective consultation with all relevant stakeholders
  - Culture of Stakeholders and mix identified and understood
  - Relationships addressed
  - Power / Influence level and needs reflected
- Programme Governance Structure and Process / Methodology
- Scope / Value Criteria for Regular Evaluation and Project / Programme Management and how to get people to decide / agree / commit

Effective Evaluation ongoing throughout the programme comes from agreed understandings and measures for Programme Purpose, Stakeholder Needs Analysis, Value Criteria for Governance / Structure

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**Communication Process**

**Key Words:** Communication - the exchange of information, ideas, or feelings, a plan of the communications activities during the programme. Governance - the functions, responsibilities, processes and procedures that define how the programme is set up, managed and controlled. Competence - having the necessary skill or knowledge to do something successfully. Trust - firm belief in the reliability, truth, ability, or strength of someone or something. Intangible - not directly quantifiable but which should still be built into the programme or project where possible e.g. improvements in staff learning.

2. Communication and Governance

3.1 People - Skills / Competencies / Self Actualisation are the key to interpret, report, forecast progress and strategy. Listen as well as talking.

3.2 Communication process to work between all levels and language / culture / distance / logistics. Feasible communication plan in terms of resources, contingencies, risks and outcomes resolved and signed off by all key players.

3.3 Governance – Effective process and direction with head to key evaluation criteria and linked macro and micro processes in initiation, planning, implementation monitoring and evaluation of tangible and intangible goals or purpose.

3.4 Organisation structure to be adequate and agreed. Senior Management / Board support understood, stated and experienced.

**Key Factors for Communication Process**

- People - Skills / Competencies / Self Actualisation keys
- Communication Process / Method – Understandable at each level gaining ownership, formal and informal
- Governance - Organisation Structure between all levels reflecting macro / micro value and have processes in place to monitor and evaluate

Effective Evaluation ongoing throughout the programme comes from agreed understandings and measures for Programme Purpose, Stakeholder Needs Analysis and Effective Governance / Communication Processes / Structure / Value with effective relating macro & micro systems.
Plan Programme

Key Words; Programme Management - the co-ordinated organisation, direction and implementation of a portfolio of projects and activities that together achieve outcomes and realise benefits that are of strategic importance. Project - a temporary organisation to undertake a unique, novel and transient endeavour managing the inherent uncertainty and need for integration in order to deliver beneficial objectives of change. Plan(ing) - A scheme, program, or method worked out beforehand for the accomplishment of an objective

3. Programme and Project Planning

4.1 Programme – flexible at macro (programme) and micro (project) level, understood, agreed by all key resources and stakeholders & understandable to key value criteria

4.2 Practical Planning at macro and micro levels - Problem Solving, Learning, Replanning, Dependency Programmes. Targets, Outcomes, Impacts, Risk Management with appropriate contingency

4.3 The feasibility of the projects comprising the programme in terms of key goals targets / risks, resources, contingencies, risks and outcomes resolved and signed off by all key players.

4.4 Programme and project management practices that allow the group or organisation to manage a group of projects that are matched to the programme strategy and development objectives.

4.5 Project, programme / organisation metrics that provides direct monitoring and evaluation on project performance, and anticipated future success /vision. Sustainable organisations are increasingly recognising the need for macro / micro aligned success criteria.

Key Factors for Programme Planning

- Feasible Programme / Project Planning - evaluation criteria focus
- Group, Programme & Project Evaluation Practice Values - Macro / Micro
- Practical Planning, problem solving, risk & contingency planning, dependency programmes, commitment, s.m.a.r.t and flexible, human.

Effective Evaluation ongoing throughout the programme comes from agreed measures for Programme Plans, Goals and Sustainable Outcomes & Value through CSC and CSF which are feasible, understood and agreed.
Implement and Monitor Outcome

Key Words; Implement - put into effect, Monitor - keep under observation, especially so as to regulate, record, or control. Outcome - Results or changes of the program, Results of a process, including outputs, effects, and impacts, Critical Success Factors (CSF) - Key areas of activity or enablers with which favourable results are necessary for a group to reach its goal

Primary Factors

4. Project Implementation and Monitoring

5.1 Check the feasibility of the programme / plan in terms of resources, contingencies, risks and outcomes resolved and signed off by all key players

5.2 Check Clear Risk Understanding - Identification / Assignment of Risk in Delivery

5.3 Check Agreed Action, Commitment - Contract, Contingency and Risk - Are both tangible and intangible costs being addressed?

5.4 Implement, Communicate, Achieve - Lead, Monitor Commitment, Time, Cost, Funding, Resource, Target, Manage Actions, Risk, Contingency, Criteria.

5.9 Manage & Monitor – Performance, Contingency, Risk, Action, Criteria (CSF), Audit

Keys Factors for Monitoring

- Implement, Communicate, Lead and Achieve / Review Plan - Resolve, Replan, Update Action, Contingency / Risk

- Monitor Performance & Commitment - People & competence are key to interpret, report, forecast progress - Timeline, Resource, Contract, Budget, Audit.

- Review Targets (monitoring) and Achieve Key Criteria ongoing thru Evaluation

Effective Evaluation throughout the programme enabled by clear definition of Value, Programme Plans, Goals, Risks, Targets, Contingency, Milestones, Commitment, and the flexibility to resolve and update with overall parameters to still achieve Sustainable Outcomes through CSC and CSF.
Evaluate

Key Words: Evaluate - to decide the value or worth of, Benefits - Quantitative and qualitative improvements expected or resulting from a plan or programme, Stakeholder Expectations - what is considered the most likely to happen. Any expectation is a belief that is centered on the future, may or may not be realistic.

Evaluate the Feasibility and Sustainability of the Organisation/ Programme /Project by being able to effectively review with key stakeholders the

6.1 Value / Benefits Realisation, Outcomes, Stakeholder Expectations & Satisfaction Relative Importance of Criteria.

6.2 Goals (take care with initial over-optimism, conceptual difficulty) Rich Communication, Key Agreed Criteria, Leadership, Flexible, Understood, Enable to Implement & Evaluate.

6.3 Performance (ensure success criteria, clarity & consensus, un/acceptable)

6.4 Risks (realistic & then target milestones (time & cost) with realistic contingency)

6.5 Outcome (success / failure, satisfaction / dissatisfaction)

Key Questions

· Can each aspect of the project be evaluated?

· Is the evaluation system built into the project?

What are your overall criteria for success? What are your indicators for success? How will you evaluate on a regular basis that your programme will achieve sustainable outcomes.

Ongoing Keys for Evaluation

- Value / Benefits / Performance / Simple Effective Workable Overview

- Key success criteria agreed & smart simple but effective planning and communication methods – key Goals (soft & hard), Questions, Metrics

- Simplify and Focus the Project - Maximise realisation of gains through Evaluation

Effective Evaluation and Growth for organisation / programme by realisation of criteria (CCS & CSF) for Organisation Value, Programme Plans, Goals, Risks, Contingency, Outcomes, Sustainable Growth.

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Appendix 6 - Glossary of Terms

Antecedent - a thing or event that existed logically or logically precedes another or needs to be in place for the other, the statement contained in the ‘if’ clause of a conditional proposition

Benefits - quantitative and qualitative improvements expected or resulting from a plan or programme,

Communication - the exchange of information, ideas, or feelings, a plan of the communications activities during the programme,

Competence - having the necessary skill or knowledge to do something successfully.

Culture - customs, institutions, and achievements of a particular nation, people, or group,

Environment - the natural world, especially as affected by human organisation / activity

Evaluate - to decide the value or worth of,

Evaluation Criteria - measurable Indicators that will be used to evaluate the progress to otherwise towards agreed (tangible and intangible) outcomes and long term desired impacts,

Frame – an open structure that gives shape and support to something, an established order, plan or system,

Method – orderliness of thought or action, the orderly arrangement of ideas, way of proceeding or doing something,

Methodology – the system of methods and systems used in a particular discipline, the science of method

Model – a simplified (often mathematical) description of a system to assist predictions, a representative form, style or pattern,

Governance - the functions, responsibilities, processes and procedures that define how the programme is set up, managed and controlled,

Implement - put into effect,

Intangible Goals - not directly quantifiable but which should still be built into the programme or project where possible e.g. improvements in staff learning

Logical Framework Analysis (LFA) or Logframe - was developed essentially in the international development area for clear definition of the project activities needed to affect the deliverables and realise the outcomes to goals

Monitor - keep under observation, especially so as to regulate, record, or control,
Non Government Organisations (NGO) - not-for-profit aid / relief or community-managed organisations that may receive government funding specifically for the purpose of providing community support service, carrying out development projects or programmes.

**Objective** - 1. being the object or goal of one’s efforts or actions, 2. not influenced by personal feelings, interpretations, or prejudice; based on facts; unbiased.

**Objective outcome** - 1. outcomes that define (and achieve) the objective, 2. outcomes that are objectively evaluated or validated.

**Organisation** - an organised body of people with a particular purpose,

**Outcomes** – end results realised by a set of actions or outputs, results or changes of the programme or a process, including outputs and activities,

**Outputs** – the product of a process, the deliverables or actions which produce value, which when delivered together through a programme of projects to achieve an outcome which can be evaluated through their sum,

**Paradigm** – a pattern or model, especially one underlying a theory or methodology, in the philosophy of science a very general conception of the nature of scientific endeavour within which a given enquiry is taken,

**Plan (ning)** - a scheme, program, or method worked out beforehand for the accomplishment of an objective

**Post Disaster Rebuild Methodology (PDRM)** - developed in 2005 by the PMI for application by relief agencies, non-governmental organizations (NGOs) and/or governments following a major disaster. It is based on A Guide to the Project Management Body of Knowledge (PMBOK® Guide) – Third Edition

**Programme** - a broad effort encompassing a number of projects and/or functional activities with a common purpose.

**Programme Management** - the co-ordinated organisation, direction and implementation of a portfolio of projects and activities that together achieve outcomes and realise benefits that are of strategic importance,

**Project** - a temporary organisation to undertake a unique, novel and transient endeavour managing the inherent uncertainty and need for integration in order to deliver beneficial objectives of change,

**Project Management (PM)** - the application of knowledge, skills, tools, and techniques to project activities in order to meet or exceed stakeholder needs and expectations from a project.

**Project Cycle Management (PCM)** - works with the Logical Framework Analysis or Logframe method through ongoing project action and reflection cycles to enable rigorous monitoring and evaluation of project action to programme outcomes

**Project Management Body of Knowledge (PMBOK)** - an internationally recognised body of knowledge, that provides the fundamentals of project management as they apply to a wide range of projects. It offers a set of processes, generally recognised as good practice, which delivers results across industries and organizations. With over two million copies in circulation, the PMBOK® Guide is renowned as one of the leading tools for the profession.
Project Management Institute (PMI) - (see www.pmi.org.au) the world’s largest PM institute which has arguably the most developed set of methods in PM (being the Project Management Body of Knowledge (PMBOK)) and standards in Programme and Organisation Portfolio Management.

Project Monitoring and Evaluation (PM&E or M&E) – project monitoring and evaluation can be an integral part of each phase/step of the project life cycle. There can be measurable objectives when the project is defined and measurable milestone in the project plan. During the implementation of the plan monitoring and evaluation can show to what extent the project or programme has reached the outcomes and targets.

Soft Systems Methodology (SSM) - first developed by Peter Checkland in 1980 for complex or messy problems and people issues in project research and resolution. The term “soft” in respect of systems was defined in response to the realisation that not everything that affects an outcome is a material or hard part of the system.

Success Criteria – the standards by which the project is to be judged to have been successful in the eyes of the stakeholders.

Success Factors-- key areas of activity or enablers with which favourable results are necessary for a group to reach its objective outcomes

Stakeholder - a person with an interest or stake in the organisation,

Stakeholder Expectations - what is considered the most likely to happen. Any expectation is a belief that is centred on the future, may or may not be realistic.

Value - relative worth, merit, or importance

Trust - firm belief in the reliability, truth, ability, or strength of someone or something,

Values - A principle, standard, or quality considered worthwhile or desirable,