THE RELATIONSHIP BETWEEN THE CLIENT, CLIENTS PROJECT TEAM AND THE EPCM PROJECT TEAM

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The inter-relationship between these parties and the effect on the outcome of the project is often grossly underestimated.

There are numerous success stories where the parties have worked as complementary teams aiming at the best outcome for the client company and achieving significant success.

While there are a good number of occurrences where either the roles of the parties were unclear or perceived to be different from what others in the team believed or required them to be and the results were less than desired. This usually resulted in ongoing conflict, incorrect focus, working to different agendas and the result being a less than optimum result to Client Company.

Mining, by its very nature of exploring where you cannot see, be it a shaft being sunk, tunnel being developed or other excavation that needs to be made, requires a very special working relationship between the parties. To understand this, and it applies equally well to mine and plant construction and other multiple function projects, one needs to start by describing the relationship of the parties. Often people believe that because they manage ongoing complex operations and large numbers of people that they can manage projects and as such the participants will "fall into line." At the outset it needs to be stressed that "Project Management" is a specific type of management and needs to be understood as such. There are enough Colleges and Universities that teach project management, not only as a subject but also as a Master Degree.

As you start up your project the relationship you establish between the client, project team (C.P.T) and the Engineering, Procurement, Construction and Management team (EPCM) will largely determine how successful your project will be. It is essential that from the outset a spirit of co-operation, support and respect be nurtured, and that it be actively carried through the project life cycle.

There are several methods to facilitate this including team building exercises right at the start. This time and money will be well spent and recouped many times over during the project life cycle.

However, should this aspect be neglected relationships may soon spiral down to intolerable levels. When projects operate in adversarial mode the consequences for the project are such that is almost certain that the targets will not be met. It is therefore imperative that significant attention and detail is directed towards the goal of relationship building between the relevant parties.

Firstly, it is of critical importance to understand the roles and responsibilities of each of the parties as well as the individual members that make up the overall team.

The Clients project team will determine the product or outcome required by them which is submitted to the project manager prior to any work commencing. That each understands clearly what the outcome required is and is agreed by both parties cannot be stressed sufficiently. A clearly thought through document written in sufficient detail with time lines, hold points and specific detail, where necessary will facilitate this understanding process on both parties sides. It will be important to include certain hold points which will be incorporated into the schedules, where the project manager must obtain approval before successive work activities can proceed.

The EPCM project manager is accountable for the outcome of the project in terms of all the deliverables usually stated as (PCT&S) Performance, costs, time, and scope. It is incumbent of the project manager to determine the project process, and not one of the other players. It is the project manager that will ensure that the project is executed with due care and diligence and within the contractual definition of the required deliverables. It cannot be more clearly stated than that the accountability rests with the project manager for the successful delivery of the project.

An aspect that is not always clearly understood is that the project managers professional indemnity insurance requires that the project manager has full control over those activities (and this refers to a wide range and is the matter for a separate discussion) that can attract a claim or claims under this specific insurance.

With reference to the above paragraph it is an imperative that the project managers deliverables are defined in sufficient detail to not only be able to monitor performance on deliverables, but also to handle matters in the event of a claim.

The question will probably arise as to why this is stated so specifically and it needs to be stressed that the role of the project manager is not a pre defined role and the deliverables cannot be assumed. The roles can and do vary considerably and hence the need to clearly define them or each of the project managers roles. In large multi disciplined projects it happens that there are individual project managers responsible for specific activities and / or section reporting to an overall project manager (Programme Manager).

There are numerous activities that take place within a project. These are scheduled out in great detail by the planners to enable the proper control and deliverables, but as pointed out by H W Read in his presentation to the platinum conference in 2004, people must not fall into trap of these activities becoming the dominant focus and hence impacting on the critical path. Here we refer to such activities, reviews, audits and option studies, although of great importance, run in parallel to the critical path and the team must not get so embroiled in alternative analysis that so much time is consumed as to unnecessary add to the cost and / or delay the project.

Research has shown that the single most important factor that can be attributed as the cause of project failure is project fragmentation.

The client often does this unintentionally and without fore thought to the consequences. It is imperative that the project be seen as an integrated whole and where the project managers main function is to coordinate and integrate all the elements, components and team members into a harmonious working unit.

The project manager must have the authority to implement the above actions and to achieve this necessitates that all contractors, sub-contractors consultants are appointed both commercially and legally by the project manager.

The acknowledgment and the support of the project manager needs be demonstrated by the client's management team. To this end a project charter needs to be drawn up and countersigned by the relevant person.

The charter, which is drawn up in conjunction with the clients team and management clearly defines the roles and responsibilities of and in particular, the project manager. This then provides the clear requirements, necessity, and authority of the project manager to make the necessary decisions and to lead the project to success.

Having described the function / role of the project manager, the clients project manager has very different roles and responsibilities also of critical importance within the overall team, to support and facilitate other team performance. Their tasks include but are not limited to the following. Before listing these task it should be clearly understood that the roles of the clients project manager and that of the project manager are distinctly different and do not or should not overlap.

The clients project manager tasks include:

- Provision of an aligned and co-ordinated interface between the stakeholders at the project and organizational level,
- Work toward the implementation and acceleration of corporate strategies within his / her area of responsibility,

- Manage the inevitable and intensive political pressure to promise / commit to unrealistic time frames as well as pressurized reductions in cost items or the overall without considering the implications of the actions,
- Develop / apply operational and performance standards,
- Ensure quality,
- Control spending,
- Examine alternatives to speed up deliveries and / or execution time,
- Facilitate creative solutions to complex problems to the best of the clients needs,
- Ensure value for money for the client,
- Ensure alignment with corporate strategy and goals.

"As valuable as Project Management Techniques are, they are insufficient to manage the overall corporate business process" HW Read.

The clients project team should not be involved in the execution, as that would interfere in their role of quality assurance to meet the company goals.

Communication, Communication, Communication – there can never be too much communication. The interaction between the clients project team, the project manager, and the EPCM team, that is meaningful and constructive communication is vital for the overall success of the project.

It is important to understand the following aspects with respect to the overall project success:

1. Project philosophy is communicated at the level of project manager / project principal.
2. Overall project control is executed by the project manager.
3. Ensuring the meeting of the clients needs is the role of the clients project manager.
4. Formal communication needs to be recorded and signed off / agreed to in a formal manner.
5. The EPCM project manager is and remains responsible for the outcome.
6. Project fragmentation will lead to project "failure," i.e. less than optimal delivery.

Acknowledgment to: - Project Management by H. W. Read (Pr. Eng) December 2003.

MANAGEMENT OF MINING PROJECTS

ZAMBIA

WHY PROJECTS FAIL

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The word “fail” comes from the Latin “fallere” – to deceive

In modern English, fail means:

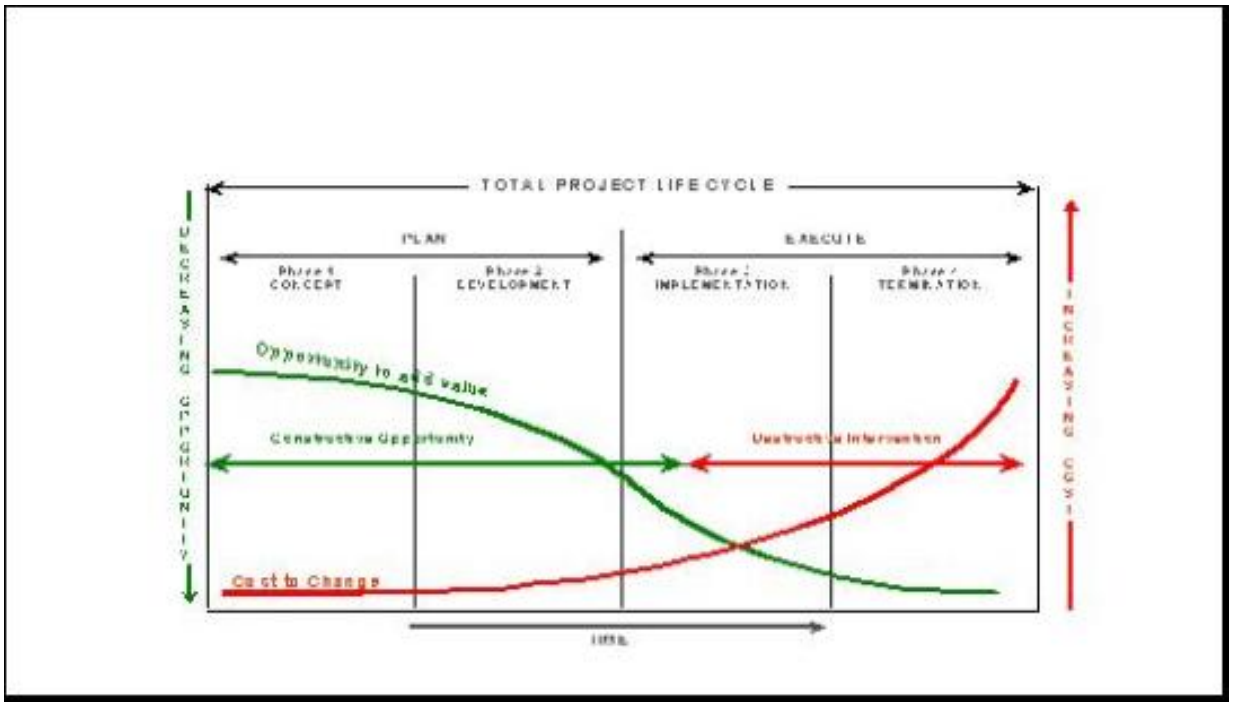
- To be unsuccessful in an undertaking
- To be unable to meet set standards
- To stop working properly
- To go out of business.

A mining project is generally deemed a failure when:

- It over-runs its budget
- It over-runs its completion schedule
- It does not meet its production targets
- It does not make money

Any one of these outcomes can be a consequence of many problems encountered during the project’s life cycle. All these problems are, however, secondary to the prime cause of project failure: A lack of understanding of project dynamics and the critical importance of the investigation and development phases.

Figure 1 is an elementary representation of a project life cycle.



As the project move through the four phases in its life cycle, so the opportunity to add value decreases, and the cost of doing so will increase as more people become involved, more decisions made, and more money is committed to the project. In the earlier phases there are constructive opportunities to improve the project but, once planning and development are complete and the implementation phase is underway, any intervention is destructive and costly.

The conceptual phase starts with a decision to proceed with an investigation. It is essentially a desktop study lasting about thirteen weeks and involving a small team of two to four people.

The output will be an order of magnitude estimate of the capital cost and expected returns on the investment. This OME is prepared to with an error level between 25 to 30 percent and a confidence level of 40 percent.

The error level means that the capital estimate could be between 25 and 30 percent higher or lower than that shown. The confidence level indicates that the OME only addresses the major issues, which are only 40 percent of the total required.

During phase two, the development phase, the error level falls to between 15 and 25 percent, and the confidence level rises to 66 percent. The output is a final feasibility study, upon which the developer will make the decision to proceed with the implementation phase. These detailed, sometimes called “bankable,” studies are expensive, unlike the desktop studies of phase 1.

Once the developer takes the decision to proceed with the implementation phase, there should, ideally, be no changes to the basic designs developed during the feasibility study. Of course, this is not usually possible, but the effort put into the conceptual and development phases will be inversely related to the amount of re-work required in the implementation phase, i.e., the more effort put into the conceptual and development phases, the less amount of re-work. Repeating work adds significantly to the costs.

This phased approach reduces the risks involved. The first risk, after the initial decision to proceed with the conceptual investigation, is the cost to complete a full feasibility study

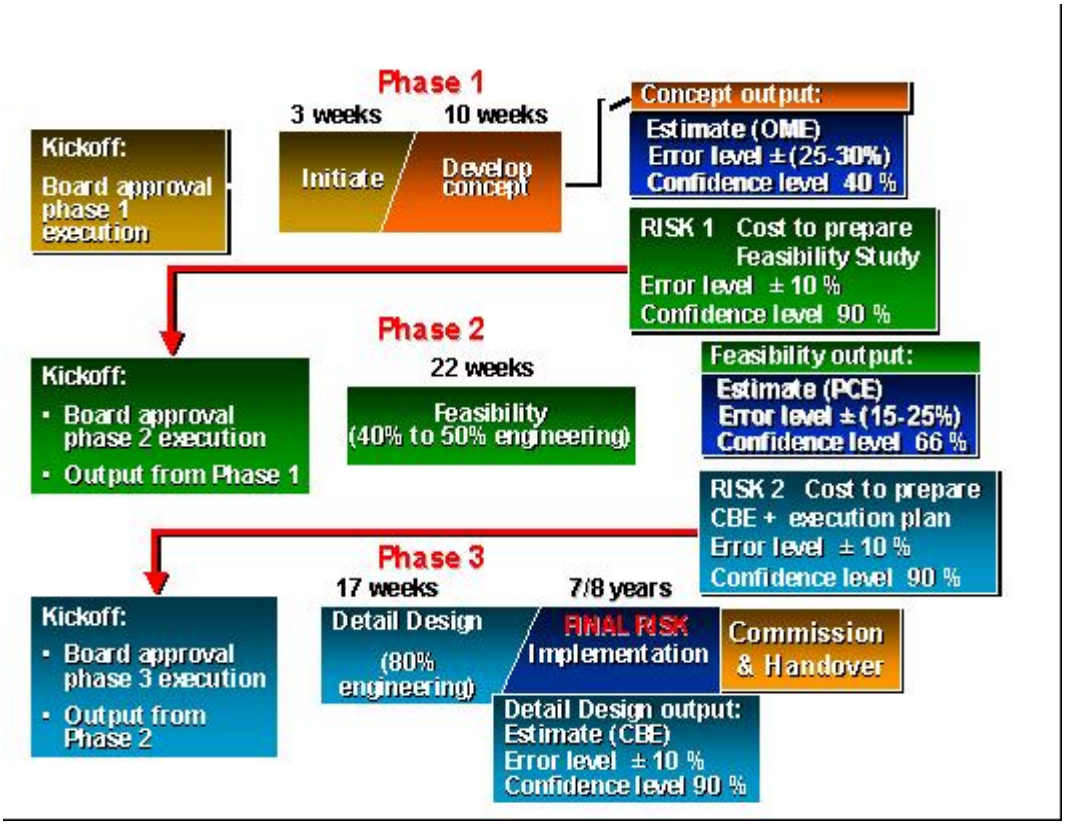
This estimate, prepared with a low error level and a high confidence level, is a phase 1 output.

The second risk is the cost of actually constructing the mine. The feasibility study must produce a low error, high confidence level estimate to do this.

The final risk is the actual construction phase. It is here that many projects go horribly wrong, and both costs and time spiral. The simple reason is that not enough effort into the conceptual and development phases, or that the developer took “short cuts” by failing to strictly follow a phased development of the project.

A mine is a complicated engineering construction, and requires input from many different engineering disciplines. These highly qualified, experienced and expensive specialists must be not be involved in the project until all the preliminary investigations are complete, and no work is wasted, re-done or duplicated.

Figure 2 illustrates this concept



Virtually all other problems that arise during the course of a project, and which can cause it to fail, originate from a lack of proper planning and investigation. All too often impatience rules, and, in an effort to please owners and investors, project managers take short cuts and report false progress. In other words, they deceive not only themselves but also the investors; which brings us back to the origin of the word “fail”.