Water and the project cycle
by Tom Franks

The stages through which any development project passes form a 'cycle', traditionally — if not ideally — modelled on the participating agency's perspective. Is there a workable 1990s alternative?

PROJECTS ARE AN important mechanism for the development of the water sector. Whilst there is increasing emphasis on establishing the right policy framework for the utilization and protection of water resources, the practical actions to implement these policies are generally undertaken through projects or programmes. These consist of sets of activities which require the investment of financial and human resources over a period of time to create physical or institutional assets, in the expectation that they will yield benefits in the future.

Projects in the water sector cover a great range of undertakings: the digging of a well, the establishment of a village well committee, restructuring a municipal water supply, building a large dam and its associated infrastructure. Many people think of projects as activities undertaken specifically in co-operation with multilateral and bilateral assistance agencies, and these agencies have indeed been very significant in developing project methodologies. Nevertheless, the basic project approach is applicable to a very wide range of human activities in the water sector (and elsewhere), and is not restricted only to undertakings which are supported by outside agencies.

Figure 1. The project cycle

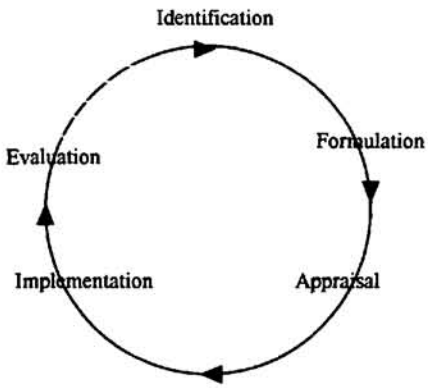


Figure 1. Baum's early model for a simple development-project cycle.

A project is often described as passing through a series of stages which form a cycle. Many versions of the project cycle have been put forward, in varying degrees of complexity and highlighting different features, and one of the earliest was Warren Baum's, in the form of a simple cycle of five stages (see Figure 1, left). In Baum's cycle, the project moves from identification, through the successive stages of formulation, appraisal, and implementation, ending with evaluation which leads to the identification of further project ideas — thus forming a cycle of development. Whilst Baum's model, and the other models which followed it, has conceptual strength and simplicity, it views projects from the perspective of development agencies and financiers, who are mainly concerned with the project phase because that is the stage at which their involvement is greatest. Development agencies may have less interest and involvement in the subsequent and more important phase when the assets have been created and benefits should flow from their use. Projects viewed from the perspective of beneficiaries are somewhat different; they do not form a cycle but a line, starting with the project phase and continuing, hopefully over a long period, into the period when the project assets are in use to yield benefits and services.

Measuring achievements

Projects and the project cycle have been a feature of development for a considerable time, but some new and important project approaches have become widely used in recent years. The logical framework is increasingly applied to assist in the planning of all types of project, and can serve many useful functions in relation to water development. The most common format of the logical framework consists of a four-by-four matrix (see Figure 2, above). Its most important feature is that the four horizontal rows link the activities of the project (the bottom row), to the project outputs, which are the facilities or assets to be created by the project. The use of the project outputs contribute to the purposes of the project which, in turn, contribute to the wider objectives or sectoral goals (top row). By highlighting these relationships, the logical framework assists stakeholders to think through the linkages between projects and policies for the sector, and to ensure that a particular project fits rationally within a policy framework. The four vertical columns link the activities, outputs and purposes of the project to the monitoring indicators which can be used to measure its achievement, and to the risks and assumptions which may affect project achievements at each level.

Figure 2. The logical framework

Project summary	*Objectively verifiable indicators*	*Means of verification*	*Risks and assumptions*
Sectoral goals			
Purposes			
Outputs			
Activities			

Consideration of these linkages is a useful exercise for planners and managers alike, and may lead to changes in project design and different management approaches if particular problems are identified. It also directly facilitates the identification of appropriate indicators for monitoring the outputs

and impacts of the project. Although the framework is often thought of as a tool which is particularly used by development assistance agencies, the logic is independent of the method of financing a project, and its application is valuable at all levels and for all types of projects.

The project approach to development has in the past been closely associated with ideas of project selection, and of choosing the best option from a number of alternatives. Traditionally, the main methodology to support this process has been cost/benefit analysis, which reflected the dominance of economic concerns in previous decades. Increasing awareness of the importance of other concerns has led to the development of a number of additional or alternative methods of project analysis which highlight different concerns.

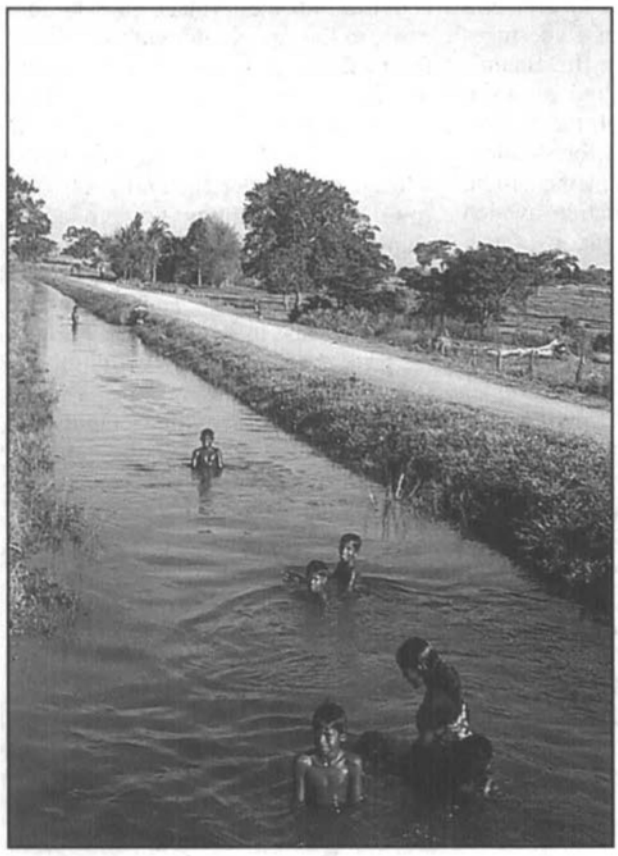
These include environmental-impact assessment, social-impact assessment, gender analysis, and approaches particularly appropriate to the water sector such as participatory appraisal and stakeholder analysis. In most cases, relatively sophisticated methods of analysis have been developed, which can be used when the scale of the project merits it and sufficient resources are available. Even in simple situations, however, the common-sense application of the ideas of stakeholder analysis, for example, can result in significantly improved project design and better delivery of project benefits.

Management issues

The concept of the project cycle has led in turn to ideas of project-cycle management. This covers the whole range of approaches and methodologies for planning and managing a project, from its identification, through the stages of planning, appraisal and implementation, to its operation to yield benefits, and beyond.

The term has been coined to distinguish it from project management, which is usually taken to refer to managing the stage of project implementation. In other sectors, particularly those involving the construction of large-scale infrastructure or industrial facilities, the stage of project implementation or construction is a very major undertaking, and its management needs to be correspondingly complex. In many water projects, by contrast, the stage of project implementation is comparatively straightforward. Project success then tends to depend to a much greater extent on careful planning, involving all stakeholders, developing appropriate financing strategies, and devising suitable institutions for operation and maintenance.

All these aspects come within the purview of project-cycle management. The ideas of project-cycle management assist project stakeholders to see the project as a whole through all its stages, rather than focusing on one particular stage in isolation. This comprehensive approach is more likely to lead to effective project development.



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Although approaches to project planning and management are constantly being improved, projects in the water sector face some specific problems. The most notable of these is the nature of such projects, and the relevance to them of project-cycle approaches. A key feature of many water projects is that success depends on the attitudes of the people served, and the interactions between human behaviour and physical facilities. This is particularly the case for projects providing clean water and sanitation to the poor, but it is also a factor in all projects where people use or interact with water directly, such as irrigation and flood-protection. The ideas of the project cycle were developed at a time when most projects were concerned with the construction of large-scale facilities, using public-sector funds. The need then was for careful and detailed planning, accurate construction of the facilities according to the plans, and strict accounting for the use of large amounts of public money. The project cycle, with its ideas of logical progression through a number of clearly defined steps, was very appropriate for such 'blueprint' projects (so-called because of engineering blueprints describing precisely what was to be built). Water projects, by contrast, are often on a smaller scale, and depend for their success on a 'process' of dialogue and partnership between all the project stakeholders, throughout the period of project development. The logical stages of the project cycle are not necessarily appropriate to process projects, which need to allow for changes in plan and emphasis as a result of dialogue, and may also need to accommodate pilot and experimental phases.

Stakeholder ownership

The nature of water projects as a process of development leads on to some other specific problems with applying project-cycle approaches.

The concept of 'process' is founded on ideas of dialogue and interaction between stakeholders, and yet the traditional project cycle does not explicitly allow for stakeholder analysis. Theoretically, it should precede even identification, since different stakeholders may have very different ideas about what type of project is needed. Indeed, there are countless examples of projects which failed to deliver their expected benefits because it turned out that the beneficiaries had a different set of motivations and incentives from those funding or implementing the project.

Thus the project cycle needs to be placed within a framework of stakeholder analysis, so that it can be clear from the outset who are the stakeholders in the project, and what are their interests. Related to this, the traditional project cycle does not make explicit allowance for the need for dialogue and participation between the different stakeholders, and for the fact that such dialogue may take time and result in significant changes in project direction, to accommodate different needs and perceptions. Underlying all such problems is the important issue of 'ownership'. Projects must be 'owned' by those for whom they are intended if

they are to be successful. Traditional project-cycle approaches have very often been perceived as being owned by development and financing agencies. The need now is to develop project approaches which are owned by the primary stakeholders.

These problems are being addressed in different ways by the various agencies concerned with water. The World Bank, for example, which was very closely identified with traditional project-cycle approaches, has recently acknowledged the need for different approaches in particular circumstances, and now proposes a new cycle consisting of listening, piloting, demonstrating and mainstreaming.[1] This cycle builds on many of the ideas of process projects.

Another major international funding agency, the European Commission, is currently developing a set of guidelines for water resources development co-operation. For historical reasons, these guidelines adhere to the traditional project cycle as formulated by the Commission (programming; identification; formulation; financing; implementation; and evaluation) but they make reference to the need for stakeholder analysis, dialogue, ownership and the other important features of water projects discussed in this article. The guidelines develop some useful 'principles for managing water equitably, efficiently and sustainably' in the areas of institutions and management, social analysis, economics and finance, the environment, information, education and communications, and technology.

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The measure of things. Projects must be flexible, and responsive to stakeholders.

New NGO approaches are going on everywhere — a health and sanitation lesson in Burkina Faso.

New NGO approaches

NGOs, too, are active in thinking through new approaches to projects. They appreciate the value of the project format for many of their undertakings and initiatives, but are concerned to make it applicable to their particular style of operating, by putting special emphasis on stakeholder analysis, participatory dialogue, and the necessary conditions for the sustainability of project impact. NGOs, like other development agencies, are also concerned to develop improved methods of project-cycle management by, for example, developing better ways of learning from review and evaluation exercises.

Underlying such new thinking is the realization that there is a need to be flexible and responsive to the changing situation for water projects, and that projects themselves must be planned and managed in such a way that they can be flexible and responsive to the requirements of their stakeholders. Perhaps projects in the past have been perceived as being linked too closely to large-scale, donor-assisted activities and, in many cases, these approaches seem both to have failed their stakeholders and not produced the benefit expected. Nevertheless, many project approaches and methodologies are applicable and useful for projects of all types and at all levels. Those in the water sector must continue to apply appropriate project methodologies imaginatively, in order to achieve better and more effective project development, and to increase access to clean water and sanitation.

References

1. Picciotto, R. and Weaving, R. (1994). 'A new project cycle for the World Bank', *Finance and Development*, December 1994, pp 42-4.
2. The Resources Guide, which you can find on pages 10-11, gives a number of useful resources concerned with project planning and management.

Tom Franks is a Senior Lecturer at the Development Project and Planning Centre at the University of Bradford. The article is based on work being carried out at the Centre on new approaches to project development, together with a recent project-cycle management consultancy for the European Commission. The author can be contacted at DPPC, Pemberton Building, University of Bradford, Bradford BD7 1DP, UK. Tel: +44 1274 385262; E-mail: t.r.franks@bradford.ac.uk.