The LogFrame Handbook

A Logical Framework Approach to Project Cycle Management

The World Bank
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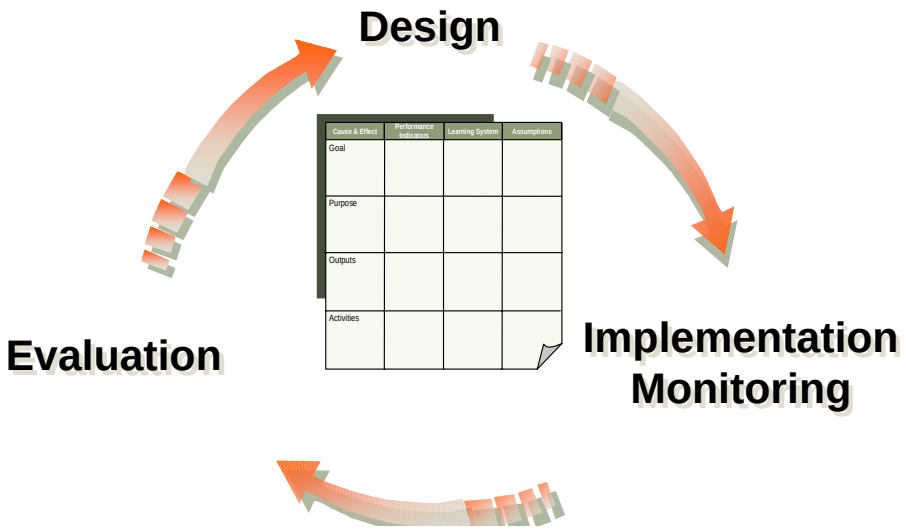
The Logframe Handbook was created by Team Technologies, Inc. of Middleburg, Virginia (www.teamusa.com) in cooperation with Operations Core Services.

THE LOGICAL FRAMEWORK

The Logical Framework is the core reference document throughout the entire project management cycle.



- *Based on international standards, methods and terminology*
- *Promotes collaboration and ownership*
- *Produces objective-driven, client-centered designs*
- *Improves causal logic*
- *Assumes projects are a learning process*
- *Integrates projects with program and strategy*

FOREWORD

The Logical Framework (Logframe) has been in use at the World Bank since August 1997, when it became a standard attachment to the Project Appraisal Document for investment operations. Created in 1969 for the U.S. Agency for International Development, it was used widely throughout the bilateral donor community in the 1970's and 1980's. Practitioners in most development management organizations have explored the power of the Logframe to create clear objectives and build commitment and ownership among clients. Over the years, the Logframe evolved as a core technique for managing the complete project cycle from design, to implementation monitoring and evaluation.

For most of the Bank's project documents the basic Logframe matrix is found in Annex #1.

This handbook summarizes the rationale and essential elements of the Logframe for practitioners. While providing guidelines for World Bank usage, the Handbook is generic enough for use by clients and consultants. However some Bank terminology may vary from general usage.

ORGANIZATION OF THE HANDBOOK

The Handbook is organized as a step-by-step user's resource guide:

How to Design a Project (Logframe)
An introduction of the Logframe matrix highlighting the key features — the causal logic, point-of-view, strong impact statement, client-centered design, systems-based intervention strategies, performance indicators, the project learning system, risk assessment and mitigation, accountability.

Design Quality Checklist
A practical approach to project design quality based on the Bank's Quality of Entry instrument and a Logframe checklist.

Adaptable Lending & Adjustment Lending
This section demonstrates the use of the Logframe with different Bank loan instruments: Adaptable Program Loans (APL), Learning & Innovation Loans (LIL), High Impact Adjustment Loans (HIAL).

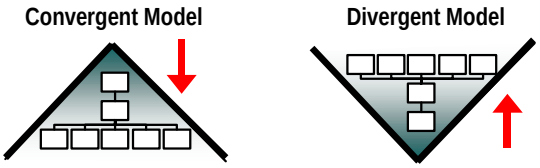
Tips for PCM/LFA
This section summarizes several valuable tips and provides specific references for finding help in the manual.

Sample Project Designs
A set of sample designs by sector and type.

"CLEAR OBJECTIVES AND
STAKEHOLDER COMMITMENT DRIVE
SUCCESSFUL PROJECTS."

THE CAS, CDF & THE PORTFOLIO

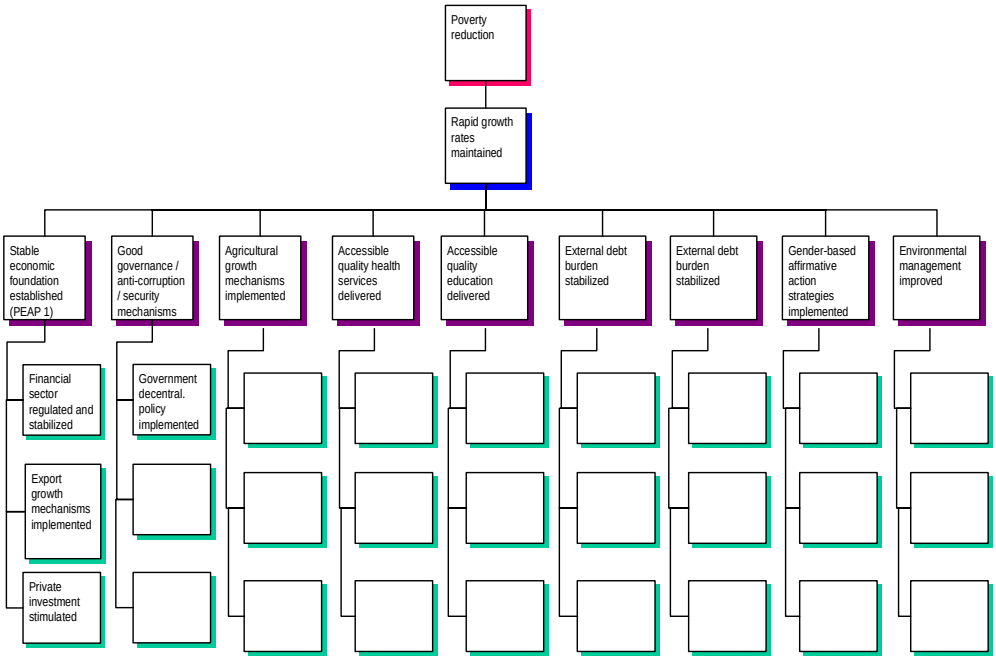
Given the continued scarcity of resources among Borrowers, the need for equitable use of government funds and the highly uncertain environments in which projects are undertaken, use a convergent model as the basis for strategic and program planning. Begin at the end with the overall results desired by stakeholders and then work backward, causally. A convergent model develops causality deductively from a desired set of strategic outcomes and tends to promote demand responsive analysis. A divergent model develops it causal logic inductively from a set of interventions and tends to promote supply-side analysis. Both kinds of analysis are essential to developing a quality project portfolio.



When used collaboratively among Bank, Borrower and stakeholders, the Results Framework method based on the use of a convergent model generates a strategic and program framework which can capture the design of the Comprehensive Development Framework (CDF) and define the Bank's Country Assistance Strategy (CAS).

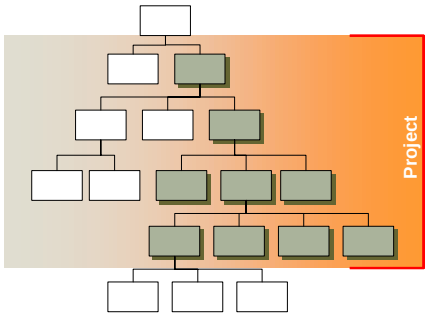
Use this approach to build a portfolio of projects grounded in strategy that is demand-driven, client-centered and based on the resources necessary to produce results as well as the capacity needed to implement the projects.

Develop a Results Framework for the CAS. Begin with "Poverty Reduction" and work your way down into strategy and program.

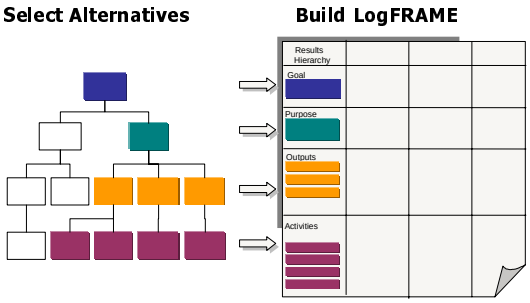


PRIMACY OF POINT-OF-VIEW

All projects in a country strategy should be aligned with the CDF and CAS. The CDF and CAS Results Framework may have several levels.



The Results Framework provides the causal logic for the first column of the Logframe.



The first step in using the Logframe is to identify the appropriate level for the project you are designing. We call this Point of View. Point of View is relative with regard to the Results

Framework. Use point of view as the basis for agreeing on the definition of impact (the Development Objective) and defining clear roles and responsibilities (the Outputs).

Point of view begins with the question: Whose project is this? Every endeavor is from someone's point of view. By definition, Point of View is that of the implementing group. This could be a government ministry, local NGO's and community-based partners, or combination of these actors. Keep in mind that development projects are rarely from the point of view of the Lender.

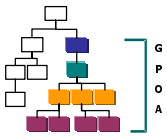
To set the window use the follow three steps:

Primacy of Point-of-

1. Establish Point-of-View

Whose project is it?

Relative - use the implementers' point-of-view



2. Define Project Development Objective

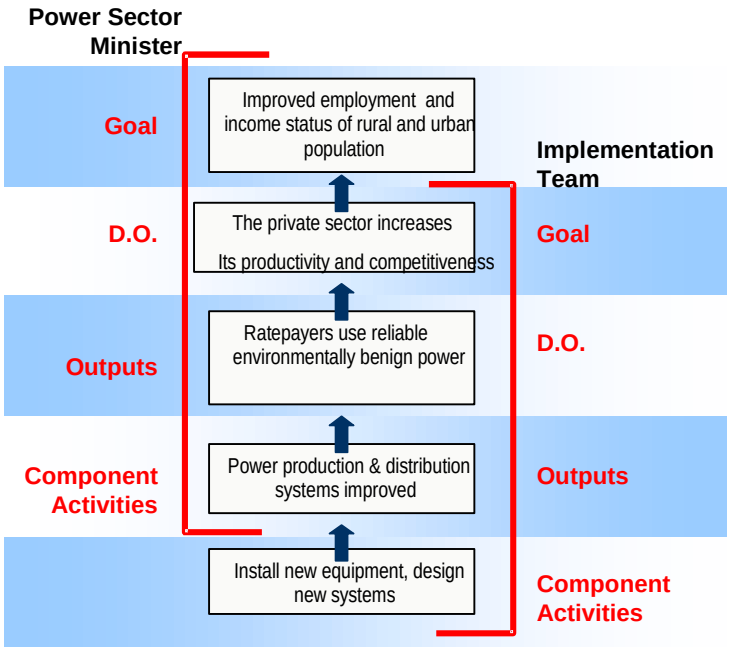
The impact the implementers hope the project will have on the customers; the change in client behavior, institutional or system performance: *but outside their control.*

3. Define Outputs

The value added by implementation of the components. *the implementers can be held accountable.*

Point of View is relative. For example, in the causal hierarchy below, the cause & effect for the minister of the Power Sector would be different than that of the project implementation team. The Minister would be accountable for product program level results. The project implementation team would be accountable for producing project level results. The cause & effect stays the same: the point of view alters.

Point-of-View is Relative



Note: Development projects are rarely from the point-of-view of the Lender or Donor.

Point-of-View is important because it provides the basis for defining the limits of accountability. There will be several points-of-view and therefore several ways to define accountability.

For example:

In the causal hierarchy above, the cause & effect for the Minister of the Power Sector would be different than that of the project implementation team. The Minister would be accountable for producing program level results. The project implementation team would be accountable for producing project level results. The cause and effect stays the same: the point-of-view is relative.

LOGICAL FRAMEWORK

The Logical Framework (Logframe) is a tool that has the power to communicate the essential elements of a complex project clearly, and succinctly throughout the project cycle. It is used to develop the overall design of a project, to improve project implementation monitoring, and to strengthen periodic project evaluation. In essence, the Logframe is a "cause & effect" model of project interventions to create desired impacts for the beneficiaries.

> "If you don't know where you're going, any road will get you there."

Participatory

Developing the Logframe is a collaborative process to engage views of intended beneficiaries and key stakeholders in the project. Stakeholder ownership and commitment equally important as technical design quality, and implementation readiness of the project team.

Conflict Resolution Model

The Logframe defines a set of relationships among providers, and users, of results. As a dialogue matrix, the Logframe provides a structured and focused approach to what can be an emotionally charged negotiation process. Because the Logframe is about results, benefits and impact outcomes, it is a useful conflict resolution for determining political outcomes. Political, because setting objectives defines how scarce resources will be used, who will benefit, and who will not.

Flexible, Process-based

Most projects are undertaken under conditions of uncertainty or where learning and innovation are required to achieve long-term impact. The traditional "blueprint" approach to projects has given way to a more flexible, process-based approach, called Adaptable Lending, that views projects as learning systems, or applied R&D experiments.

Thus, the framework summarizes a set of face-to-face project agreements at a particular point in time which can change as circumstances change. In general, this point in time is the last day of the project. Note: However, the process project may mix multiple points in time.

Contract Law

The Logframe incorporates three essential concepts from contract law to clarify understanding and agreements among the key stakeholders:

- *The meeting of the minds (D.O.)*
- *Project Deliverables (Outputs)*
- *Force Majeure (Assumptions)*

The Logframe

The World Bank's logframe uses a 16-box matrix to structure a project design. Each box contains specific and unique types of information. The boxes have a "dynamic tension" among them in that changes in one affect the others. Some changes may require face-to-face renegotiations of agreements.

The Four Columns

The first column describes the causal logic of the project's objectives and makes the important distinction between program strategy (CAS Goal), project impact (D.O.), project deliverables (Outputs) and the key component activities. Once defined, the component activities provide the basis for operational plans: Work Breakdown Structures, Gantt Charts, Responsibility Charts, Resource Plans, Budgets, and Monitoring and Evaluation Systems.

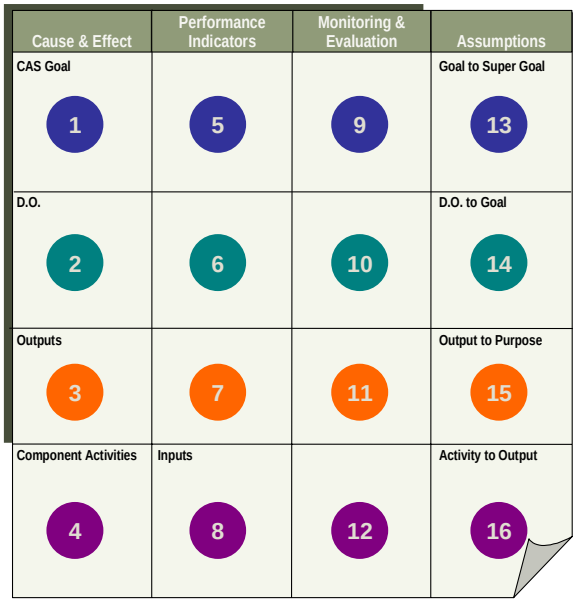
The second column identifies the performance indicators and targets for each of these levels.

The third column identifies the source of the data for the performance indicators at each level. It defines the process, events, people and information you will need over time, during implementation.

The fourth column describes the other conditions, in addition to the project, on which the project depends for its success. These assumptions are at different levels and each has varying degrees of risk.

Use the Logframe collaboratively to:

- *Link with the CAS (1);*
- *Set project objectives (1-4);*
- *Define performance indicators (5-8);*
- *Distinguish between project impact and project deliverables (2 versus 3):*
- *Define critical assumptions & risks on which the project is based (13-16);*
- *Define the system for monitoring, evaluation and supervision (9-12);*
- *Identify the basic Component clusters for implementation planning (4);*
- *Define resources required for implementation (8).*



Narrative Summary	Performance Indicators	M&E / Supervision	Important Assumptions
CAS Goal: Higher objective to which this project, along with others, will contribute.	Indicators (increasingly standardized) to measure program performance.	The program evaluation system.	**(Goal to Super Goal)** Risk regarding strategic impact.
D.O. The impact of this project. The change in beneficiary behavior, systems or institutional performance because of the combined output and key assumptions.	**Impact** Measures that describe the accomplishment of the PDO The value, benefit and return on investment.	People, events, processes, sources of data for organizing the project evaluation system.	**(D.O. to CAS Goal)** Risk regarding program level impact.
Outputs The project intervention. vWhat the project can be held accountable for producing.	Indicators that measure the value added of implementation of the components.	People, events, processes, sources of data – supervision and monitoring system for project implementation.	**(Output to D.O.)** Risk regarding design effectiveness.
Components The main component clusters that must be undertaken in order to accomplish the Outputs.	**Input / Resources** Budget by component. Monetary, physical, & human resources required to produce the Outputs.	People, events, processes, sources of data and monitoring system for project design.	**(Component to Output)** Risk regarding implementation and efficiency.

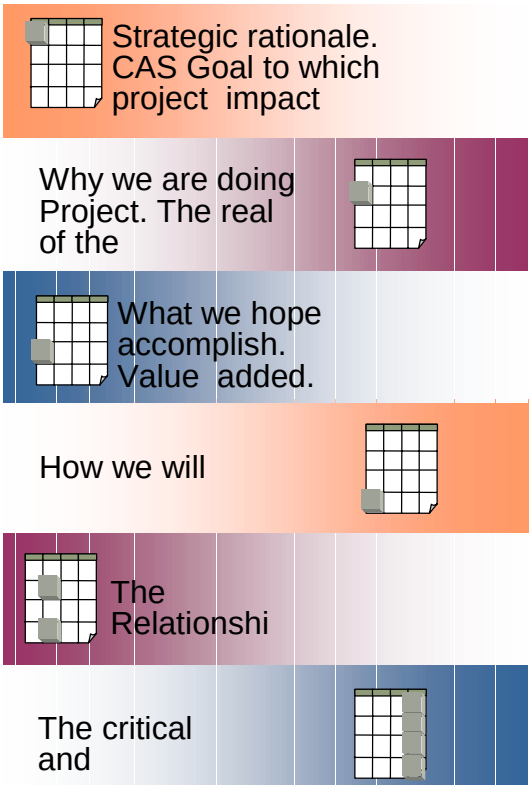
Taken together, these core concepts provide an organizational framework for summarizing the fundamentals of the project. The Logframe does not replace or substitute for traditional analytical tools and methods. Instead, it provides a structure for using those tools productively and collaboratively.

These features come alive in using the Logframe as one element in a project management system.

Advantages and Limitations of Using the Logical Framework

Advantages	Limitations
• It helps you ask the right questions. • It guides systematic and logical analysis of the key interrelated elements that constitute a well-designed project. • It defines linkages between the project and external factors. • It facilitates common understanding and better communication among decision-makers managers and other parties involved in the project. • It prepares us for replication of successful results. • It ensures continuity of approach when the original project staff is replaced. • It provides a shared methodology & terminology among governments, donor agencies, contractors and clients. • Widespread use of the Logical Framework format makes it easier to undertake both sector studies and comparative studies in general.	• Organizations may promote a blueprint, rigid or inflexible approach, making the Logframe a straitjacket to creativity and innovation. • The strong focus on results can miss the opportunity to define and improve processes. • The Logframe is only one of several tools to be used during project preparation, implementation and evaluation, and it does not replace targetgroup analysis, time planning, impact analysis etc. • The Logframe is a general analytic tool. It is policy neutral on questions of income distribution, employment opportunities, access to resources, local participation cost and feasibility of strategies and technology, or effects on the environment.

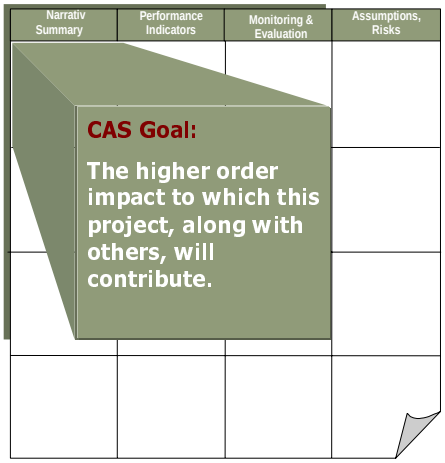
Summary of how the Logframe treats the critical project issues



CAS GOAL

Alignment with Strategy & Program

Alignment is fundamental: Alignment of projects with program is key, so begin with the causal logic between the CAS Goal and D.O. The CAS Goal is the broader objective to which your project, plus others, will contribute. It is often a strategic, sector or program goal, and may appear as the CAS Goal statement in several Logframes. It is not expected that a single project will achieve all that is stated. The project will be one of the causes, among others.



The CAS Goal statement may be taken directly from government agency or organization documents, such as five-year plans, annual institutional development plans, Country Assistance Strategies, etc. When policy level stakeholders review the value of a project, they will look at the CAS Goal and the D.O. level accomplishment. These describe the benefits for which we undertake the project Output intervention.

CAS Goal is still about customers: Beneficiaries (and those representing their interests) will want to see these interests represented in the CAS Goal. Put a face on the CAS Goal statement. If it is Reproductive Health, then be a little more clear about it:

Prevalence of HIV in Northern Region Reduced

Remember, the CAS Goal is not an aggregation of the D.O. and it is not a restatement or reformulation of the D.O. (a tautology). Keep the causal logic clear. The tautology[1] always weakens the project design.

State the CAS Goal as completed action in the future, using a strong action verb.

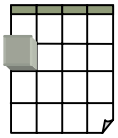
CAS Goal Checklist

✓

- ❑ *Consistent with the strategic development policy.*
- ❑ *Consistent with agency's mission statement, policy guidelines.*
- ❑ *Represents sufficient justification for the project.*
- ❑ *Target groups explicitly defined.*
- ❑ *Expressed as a desired end, not as a means (a process).*
- ❑ *Stated clearly in verifiable terms.*
- ❑ *Not a restatement or summary of the D.O.*

[1] *See page 29 for fuller discussion of the tautology.*

DEVELOPMENT OBJECTIVE



Why Do the Project?

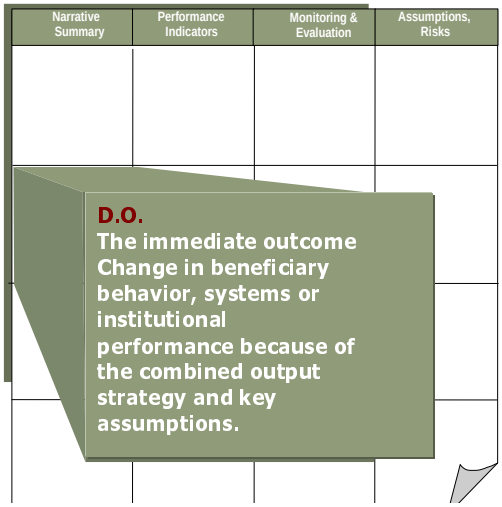
The Development Objective describes the desired outcome we hope the project will achieve, or how the world will be changed as a result of the project's Outputs. The D.O. outcome is very often the change in behavior of the project beneficiaries.

For example, a D.O. typically describes the use of project Outputs by social groups or beneficiaries:

- New production methods **used**
- New systems **implemented**
- Quality services **provided**

It may also describe the change in performance of a system or an institution:

- Electric power to end-user rate-payers increased
- Secondary school graduates increased



Change in behavior

- Agricultural production increased
- Increased use of health services
- Student enrollment & retention rates increased

Change in System Performance

- Increased use of renewable energy
- Sustainable yield timber production

Change in Institutional Performance

- More & better trained graduates produced
- Increased business starts
- Export volume increased

Single Development Objective:

As a rule of thumb, we strongly recommend that a project have only one D.O. The reason for this is a practical one. Experience demonstrates that it is easier for an implementation team to focus project Outputs on a single D.O. Multiple D.O.'s weaken the design and diffuse project efforts.

If you have multiple Development Objectives, first check to see if you can summarize the multiple Development Objectives in a single D.O. statement and clarify these several dimensions in the performance indicators. See the example below. The multiple D.O.'s of the first one can be easily summarized as a single D.O. as shown in the second.

Check #1:

Before

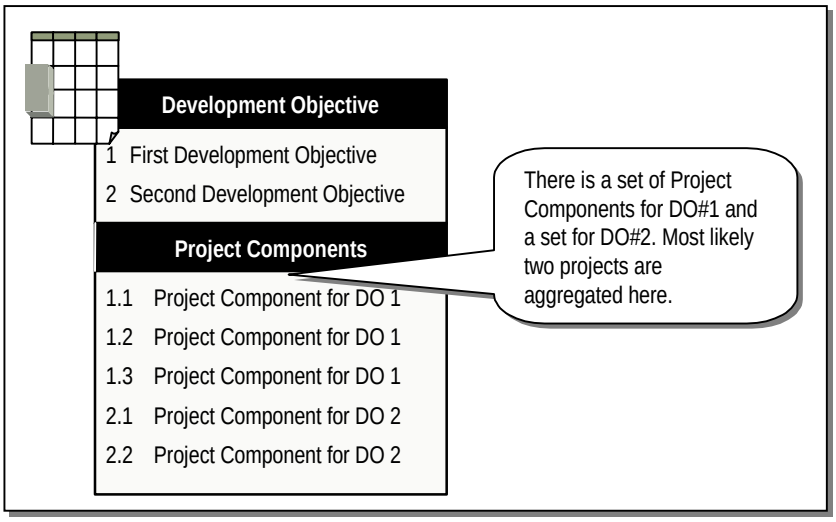
Development Objective
1. Forest resources preserved 2. Coastal areas preserved 3. Soil salinity decreased 4. Wetland area protected 5. Forest biodiversity stabilized 6. et al
Performance Indicators
1.1 Forest resource indicators 2.1 Coastal areas protection indicators 3.1 Soil salinity indicators 4.1 Wetland area protection indicators 5.1 Bio-diversity indicators

After

Development Objective
1. A managed system of protected, productive and sustainable used natural resources.
Performance Indicators
1.1 Forest resource indicators 1.2 Wetland indicators 1.3 Soil salinity indicators 1.4 Marine indicators 1.5 Coastal area indicators 1.6 Bio-diversity indicators 1.7 Grazing indicators 1.8 Regulatory systems operation indicators

Second, check if you are trying to summarize multiple projects. In that case, each D.O. will have a separate set of Outputs. You may be aggregating two projects into one.

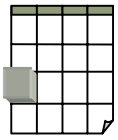
Check #2



Development Objective Checklist

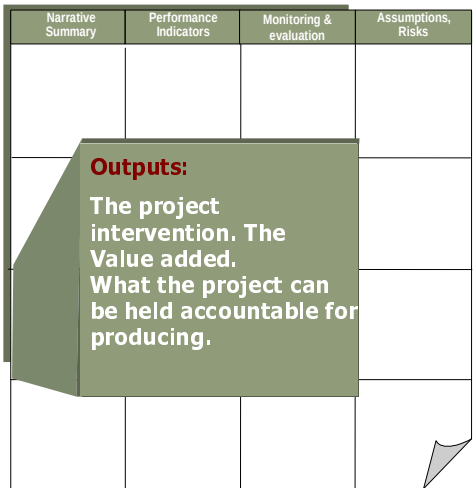
✓

- ❑ *The project has a single D.O.*
- ❑ *Describes change in client behavior or performance.*
- ❑ *Customer is clearly identified.*
- ❑ *Contributes significantly to the goal (though does not achieve it).*
- ❑ *Is realistic.*
- ❑ *It is not a tautology: restatement or reformulation of the Outputs.*
- ❑ *Is outside the implementation group's control.*
- ❑ *Formulated as a future completed action, an end-state, and not a process.*
- ❑ *Precisely and verifiably defined in the Indicators column.*
- ❑ *D.O. to CAS Goal causal logic is direct: does not skip steps.*
- ❑ *D.O. plus its assumptions describe the necessary & sufficient conditions to achieve the CAS Goal.*



OUTPUTS

WHAT the Project will Deliver



The Outputs describe the project intervention strategy. Remember point-of-view[2]. Outputs are the products or services the implementation group is accountable for delivering and for which project Inputs (people, money and resources) are provided. This was one of the definitions used for setting the G/D.O./O/C window. Outputs also describe the value added by the components.

Key characteristics of successful Output strategies include:

- *Clear time frame*
- *Comprehensive*
- *Integrated Systems*
- *Client Centered Designs*

Clear Time Frame

For most projects, describe the Outputs as if it were the last day of the project: ask what will have been accomplished by then? This distinguishes Outputs from Component Activities that merely summarize the steps to get to the end of the project. In Adaptable Program Loans[3]

[2] *See page 9 for a discussion of Point-of-View.*

[3] *See page 67 for a full description of the APL.*

(or process projects), the time frame for the Outputs will be the end of the current phase.

Clear objectives drive clear actions.

Comprehensive

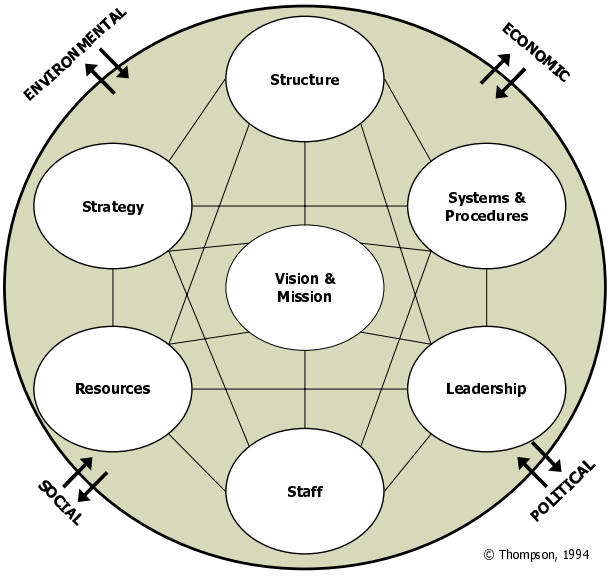
Knowing what to do does not mean you are absolutely sure of the outcome.

The Outputs describe several of the necessary conditions for causing the Development Objective level outcome, but not the sufficient conditions. These other conditions will be desirable at the assumption stage. However, it is important that the Outputs describe an integrated strategy comprehensive enough to create an impact.

For example, if the D.O. is to improve the performance of the power plant, merely implementing a Human Resource Development program may not be adequate. To achieve an increase in electrical power delivered to ratepayers on a reliable, environmentally sound basis, a more effective Output strategy might include:

1. Efficient, low emission technology installed and operational
2. Strategic planning, forecasting and power sales systems installed and operational
3. Human Resources Development Program implemented
4. Policy framework improved and regulated
5. Power distribution systems decentralized through local retailers
6. Power management systems upgraded and operational
7. Transmission systems upgraded and expanded to other systems

Design a Systems Approach



We suggest that you consider a simple systems model when developing your Output intervention strategy. Systems thinking says; "we have not defined a system until we have defined the other systems on which it depends." Because most of the D.O. level impacts you hope to accomplish center on improvement in the performance of systems, institutions or social groups, the Output strategy is often a set of efforts to strengthen each of the sub-systems. Building capacity in one or two of the sub-systems may not provide an integrated or comprehensive strategy. Use the model to identify the core sub-systems where your Outputs intervention will strengthen the overall institutional/system performance. This kind of model does not tell you what to do, only where you should look. The 7 Outputs described above are based on this systems model.

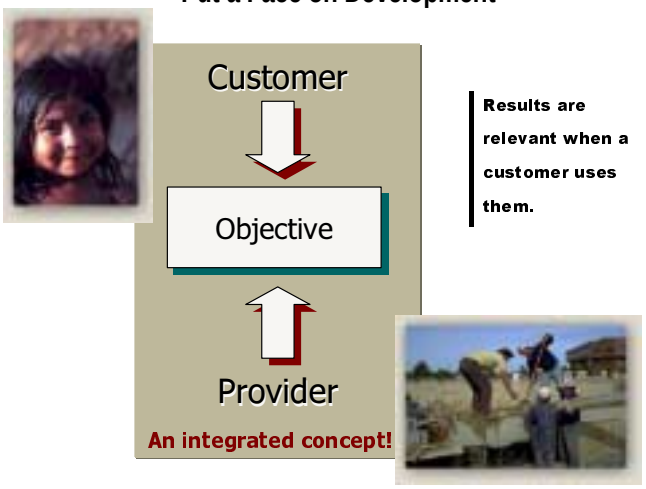
The sub-systems include	Example
Shared Vision & Values, (the organization culture). You may need an Output to redefine the overall vision and direction of the organization.	Public Nation-wide Health Sector Vision development & commitment process established
Organizational Strategy, (the mix of products and services, customer expectations). The strengthening or installation of an annual strategic planning system may require an Output to describe how the management system can be strengthened.	Annual collaborative Review, Strategic Planning and Program development cycle established and operational.
Structures, (hierarchical, team-based, centralized, cross-functional, et al). When centralizing or decentralizing organizational structures, use an Output to define what the end result of the reorganization effort will be.	Decentralized school management system implemented & operational to District level.
Systems, procedures & key processes (e.g. the MIS, Personnel, Planning, Financial, et al). Most projects strengthen the capacity of key organizational systems to improve performance for the customer. Use an Output to describe the system improvement, systems integration, or systems strengthening necessary.	Bio-diversity MIS system upgraded, integrated and operational nation-wide.
Leadership style, (autocratic/collaborative leadership, decision making, problem solving). This Output defines how management decisions are made. Is the current process inclusive, collaborative or autocratic? Describe how it should be changed to improve performance.	Community-based social fund prioritization and decision making process established in 85 participating communities.
Resources (staff skills & expertise; equipment; intellectual property in technologies, methods, knowledge, et al). You may require an Output to identify a specific method, approach, technique, process or technology; orthe of infrastructure required to achieve impact. The Output could be an existing technology or method, or describe the R&D effort to generate it during the project.	Coral Reef community-based management approach identified, validated and implemented in 4 provinces. Or, Accessible, technological responsive and gender appropriate school facilities constructed and operational.
Staff, (the kind of people hired or required). You may also need an Output that describes the staff you have and how you are going to develop their skills to achieve and sustain the new performance.	Staff development program in new curriculum, pedagogical methods and training technology implemented in the northern districts.

The organization and its sub-systems interact with the external political, social, environmental and economic environment.

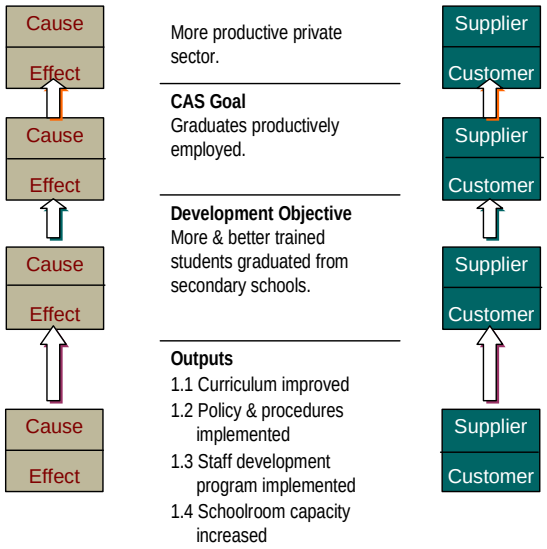
If you assess the institutional and environmental strengths and weaknesses accurately, you can then develop a responsive set of Outputs. Note: This is not "institutional strengthening" or "capacity building" in general. Design the Outputs to achieve the specific parameters of the D.O.

A suggestion: use some of the emerging international standards to assist you in the process. For example, the seven institutional criteria of the Malcolm Baldrige Award[4] are very similar to the subsystems enumerated above. The ISO series[5] will also work well. Use these criteria with members at various levels of the institution, as well as with customers. Make them part of the assessment in order to build commitment to the findings and ultimately the Output strategy.*

Put a Face on Development



Use a Client-Centered, Demand Driven Design



Good causal logic is often paralleled with another kind of logic: the service/product provider and service/product user (customer). When you align the provider-to-customer logic and the cause & effect logic, you structure your project to be demand-driven and client-centered.

Design projects to help your customers serve their customers.

The provider of Outputs serves a client at the D.O. level who uses these outputs and adds value. These customers are also providers to a customer at the Goal level. Literally all customers also serve other people, groups or interests. For this reason, beneficiaries should be active partners as well as clients in the Logframe.

In this example, the CAS Goal level was increased employment. For people to be employed by the private sector, they need skills and

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[4] *Malcolm-Baldrige criteria*

[5] *ISO Criteria*

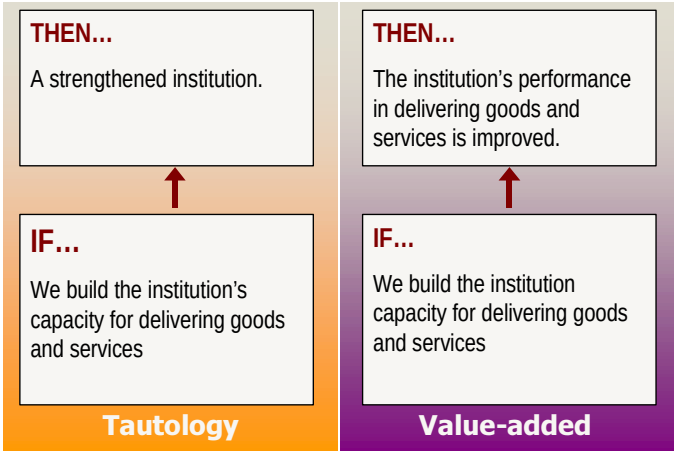
knowledge relevant to the demands of the market. In order to produce graduates with these qualifications, the school system will have to build the institutional capacity that can produce this kind of graduate. Thus, the curriculum, teaching skills & methods, building and equipment, management systems, and the community management mechanism need to be relevant.

In other words, design the Outputs in such a way that they help the school system work with its customers (the child, family and community) to help them serve their customers (employers). The best way to build in this kind of relevance is the demand-driven approach wherein you consult and engage your client, as well as help them engage theirs. You may also need to validate your logic.

Supply side:	Side: If we produce these Outputs, then what will be the impact?
Demand driven:	In order to accomplish impact, what Outputs do we need to accomplish?

The opposite approach is supply-side design. In this approach, the project Outputs build capacity, in general, with the hope that it will have some relevance. However, often no specific customer is identified or involved and the potential for irrelevance is high. Use the Customer/Provider linkage to remind you of the differences.

Avoid Tautology



Almost half of all project designs embody redundant statements! The Output-to-D.O. cause & effect logic is the heart of the project. State it clearly. Tautology weakens the project design. Avoid restating the Outputs as the D.O., using different words. Building capacity as an Output strategy in order to have a strengthened institution as a D.O. level impact is a tautology. In effect, you are saying you are going to achieve what you are going to achieve! When asked why strengthen an organization, the conclusion from this logic is — just to have one! The only real justification for strengthened institutional capacity is to improve performance; i.e., what the organization delivers to its clients.

Here is another example:

Here the Institution strengthening at the Output level is restated in different words at the D.O. and Goal levels. The project will strengthen corporate management, upgrade the legal framework and facilitate corporate restructuring. However, there is still a need to describe the impact this will have at the D.O. level. The D.O. result might be improved and more competitive corporate management performance, measured by indicators such as production levels, exports, investment, or even early indications of improved cash flow, orders, etc. The Goal impact might be economic growth and development (GDP and improvement in poverty indicators).

BEFORE ⇨⇨⇨	AFTER
Narrative Summary	**Narrative Summary**
CAS Goal 1. Facilitation of corporate financial & operational restructuring: • Strengthen legislation for effective enterprise restructuring • Remove obstacles, develop incentives to speed financial restructuring • Provide advice on the enabling environment 2. Improve the legal framework	**CAS Goal** Increased economic growth (GDP) & development (employment, income, et al)
D.O. 1. Strengthened policy and incentive framework for restructuring 2. Facilitate workouts and reorganizations of financially distressed companies 3. Improve capital structure; positive change in operating cash flow 4. Strengthened management capacity	**D.O.** 1. Restructured enterprises improved performance as evidenced by increased sales, increased production, etc. (leading indicator as improvements in cash flow)
Outputs 1. Strengthen the institutional capacity 2. Upgraded legislation and revenue department regulations 3. Increased number of restructuring agreements 4. Improved positive cash flows 5. Improved management capacity	**Outputs** 1. Sufficient incentive and regulatory structure conducive to enterprise performance is in place. 2. The ability of management to efficiently run the enterprises is improved 3. Transition / restructuring strategies for enterprises are efficiently implemented. 4. Legal and regulatory framework for revenue department upgraded.

Design project outputs to serve customer interests.

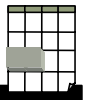
Build management capacity, facilitate agreements. Revise the policy and legal framework. The project design is tautological. Strengthen the customer's capacity (serve the corporations) so that they can improve their performance (meet their interests) in serving their clients.

Include this Special Output

The Project Management Group (PMG)

Every project requires a project management system guided by an implementation team. By definition, projects are not routine administration, automatically integrated into the existing organization structure. Were that true, we would not need projects. However, projects are experiments and often signal innovations in the way we work. Treat them differently until they become routine and become part of the annual work program.

To that end, a group of people must take responsibility for planning, implementing, monitoring and improving the project. In many cases, you may choose not to create a separate implementation unit outside the existing organization structure. Still, at a minimum, identify a matrix team to organize the project. This team should also develop a project implementation management system (PIMS) and use it to monitor and evaluate the project during implementation. Make this an explicit Output, staff it, and give it a budget to fund its activities.



Outputs	Output Indicators
1 PGM established and PMS installed and operational.	1.1 Multi-level team established and PMG implementation system designed and operational. 1.2 Conflict Resolution and Risk Mitigation process established. 1.3 Ongoing performance Improvement Planning System operational.

The PMG Output should include the routine events and activities of the PIMS plus the activities described in the Monitoring & Evaluation (column #3). To the degree that the implementation team creates a risk mitigation strategy to manage the assumptions (column #4), these activities should also be included in this Output.

In the past, most PMG's have been designed to fail. Their weakness has been in their structural integrity. Composed primarily of operational staff, concerned with the implementation issues of converting inputs into outputs, most PMG's fail to focus on impact and the interests of their customers and broader stakeholders. To be effective, the PMG needs two additional levels of participation:

- *The Strategic Level: parent organizations; e.g. senior ministry staff accountable for the oversight or effectiveness of the project;*
- *The Policy level: stakeholders or representatives of beneficiaries who have a vested interest in the success of the project.*

These other two levels provide oversight, keep everyone focused on CAS Goal and D.O., and keep the process open with constructive feedback. Without these other two sets of interest groups, the operational staff can easily lose sight of their client.

The New PMG Structure

1. *Operational level*
2. *Strategic level*
3. *Policy level*

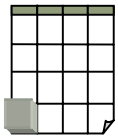
Compare this structure to the traditional corporate structure where the operational team is accountable to a Board of Directors, which in turn is accountable to shareholders or owners. For a project, the shareholders are the stakeholders and the Board is the Strategic Management Team.

The New PMG Structure	Similar To Corporate Structure
1. **Policy Team** • represent stakeholders' interests; insist on client centered design, responsiveness over time.	1. **The Shareholders** • Owners who elect the Board
2. **Strategic Team** • represent institutional interests, develop strategy, provide oversight, evaluate impact, help improve project design.	2. **The Board of Directors** • including the CEO, set strategy, hire & fire the CEO and operational team
3. **Operational Team** • Execute Output strategy, adapt to changing conditions, influence assumptions, strengthen outputs, manage implementation system.	3. **The CEO/COO/CFO & team** • interpret policy and implement strategy and report to the Board

Outputs Checklist

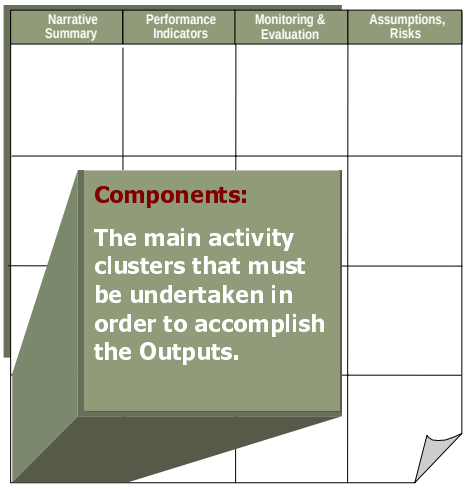
✓

- ❑ *Only Outputs that can be delivered by the project are included.*
- ❑ *Each Output is a necessary means to achieve the D.O.*
- ❑ *All Outputs necessary for achieving D.O. are included.*
- ❑ *Outputs plus Assumptions produce necessary & sufficient conditions for achieving the D.O.*
- ❑ *Outputs are integrated / synergistic.*
- ❑ *Outputs are demand-driven, not supply-led.*
- ❑ *Outputs are precisely defined and verifiable.*
- ❑ *All Outputs are feasible within the resources available.*
- ❑ *Outputs describe the value added of the components.*
- ❑ *The Project Implementation Management System (PIMS) is defined as an Output.*
- ❑ *As a whole, the vertical logic among Components, Outputs, D.O. and CAS Goal is realistic.*



COMPONENT ACTIVITIES

Component Activities are the groups of key activities required to produce each of the project Outputs.



List five to ten key Activity Clusters for each Output using the following convention:

Output:

1. Agricultural Ministries strengthened.

Component Activities:

1.1 Institutional assessment
1.2 Reorganization
1.3 Training
1.4 Equipment

Why Only Five to Ten Components for Each Output?

The Component Activities should provide the aggregate set of activities for the project. The Logframe is not the place to develop the implementation arrangements.

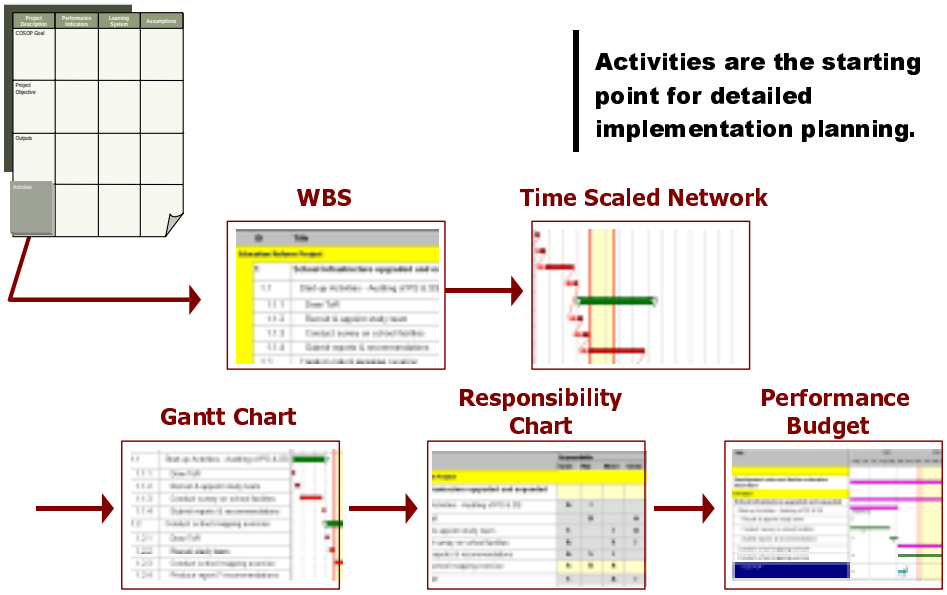
With these components a Work Breakdown Structure (WBS) can be developed to further define the activities in a Gantt Chart. Do not include the implementation details in the Logframe. Develop them separately in the Work Plans.

To better understand and formulate a realistic project design, the planning or implementation team should identify the Component Activities in as much detail as possible before summarizing them as Components in the Logframe. By doing this, the team will get a much better appreciation for the project's feasibility. This iterative learning process is a normal feature of innovative project design.

All implementation arrangements are grounded in the activities. Activities are the basis for the Work Breakdown Structure, the Work Plan (time scaled network or Gantt Chart), the Organization Responsibility Chart and the Performance Budget.

Link to Implementation Planning Tools[6]

Standard methods and tools exist for project planning, scheduling and implementation management. Use the Component Activities as the starting point for a full set of Project Implementation Planning (PIP) tools:



- *Work Breakdown Structure (WBS)*
- *Critical Path Method (where appropriate)*
- *Gantt Chart & Time Scaled Network*
- *Organizational Responsibility Chart*
- *Performance Budget (using Costab, for example)*

All implementation arrangements are grounded in the activities. The Component Activities in the Logframe are the starting point for developing a WBS. The WBS is organized inventory of activities and tasks needed to develop specific tools for managing time, people and resources.

Implementability of the project can be improved using these tools. By doing this, the team has a much better idea of how feasible the project is and how it will actually work.

If you choose to use project management software such as MS Project , use the aggregated Component/Activities as the basis for the WBS and the starting point for these software tools.

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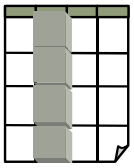
[6] *MS Project is a standard computerized software system for planning and monitoring project scheduling and budgeting..*

Components Checklist

✓

- *The Component Activities define the action strategy for accomplishing each Project Component.*
- *The Assumptions at the Component Activity level do not include any "conditions precedent". (These are required before Component Activities can begin).*
- *The relationship between the Inputs and the Component Activities is realistic.*
- *The Inputs described at the Component Activity level define the resources required for accomplishing the Development Objective.*
- *The Component Activities identify any actions required for managing processes stated in the Monitoring & Evaluation column.*
- *The vertical logic among Component Activities, Project Components, Outputs, Development Objective and CAS Goal is realistic as a whole.*



PERFORMANCE INDICATORS

Performance Indicators define the quality standards of the project. Performance measurement is the process of identifying the features that define the actual quantitative, qualitative, timing, cost and place parameters of the project. Performance indicators permit us to monitor Output performance and evaluate D.O. impact.

> If you can measure it, you can manage it!

Project quality reflects the commitment to be responsive to customer requirements. It is the customer, not the provider, who determines whether a product or service meets quality standards. Set quality standards (defining performance indicators) with your customers, clients or beneficiaries as well as with contractors.

Performance indicators listed in the second column of the Logframe, define and measure the project objectives in the first column. Indicators highlight how to recognize successful accomplishment of our objectives. Indicators are a description of results, not the conditions necessary to achieve them. That is, there is no direct cause and effect relationship between indicators and results. Indicators merely identify how to measure performance required by the objectives in the first column.

> "Measure what can be measured, and make measurable what cannot be measured."
>
> Galileo Galilei

For example, if the D.O. is:

Performance of the industrial sector improved

Use indicators that describe the performance:

manufacturing value added… or
manufacturing output growth… or
capacity utilization in the industrial sector… and/or
export volume…

How Much Success?

Describe the level of success needed at one level of the logframe to accomplish the expected achievements at the next level. Higher order objectives, i.e., CAS Goals, D.O.s and Outputs — can all be measured with indicators.

How Many Indicators?

Use only the number required to clarify what must be accomplished to satisfy the objectives stated in the first column. In general, the fewer the better.

Try to Use Industry or Sector Standards:

If an industry-standard indicator[7] is available and practical, use it. Some sectors have more than others. For example:

National headcount index
Public expenditure on health, education, et al
Access to safe water
Infant mortality rates
Weight for Height ratio
Immunization rates
Life expectancy at birth

Net primary school enrollment rates

Sustainable yields
Productivity per hectare

Export growth rates
Ratio private/total investment
Ratio private investment/GDP

Rural service penetration rates
Average transport costs
Ratio tonnage produce transported/time

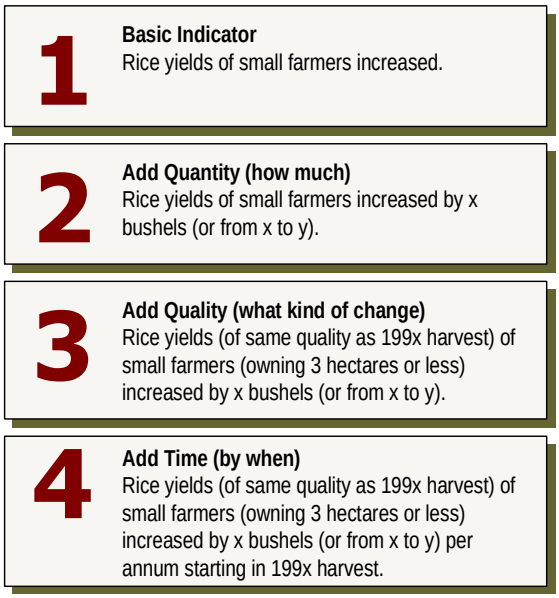
Air quality index
et al

Constructing & Targeting Indicators

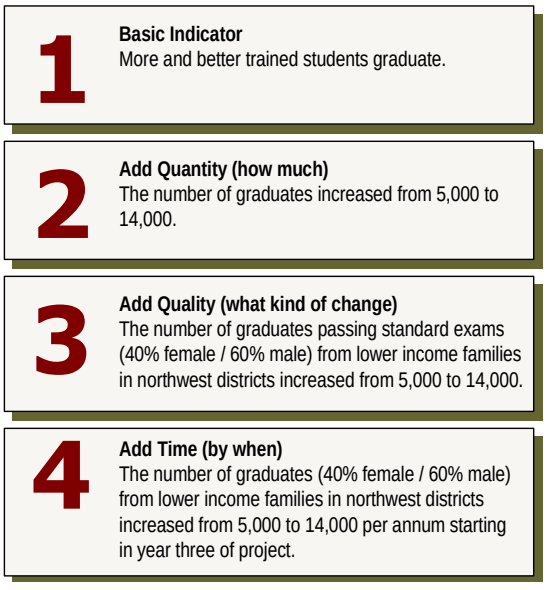
Build indicators from the objectives in the first column. Ensure that each indicator is measurable in terms of quantity, quality and time (QQT). Sometimes location and cost can be added.

[7] *Go to the World Bank website and locate the World Indicator list.*

The act of putting numbers, qualities and dates on indicators is called QQT targeting. This is a four-step process.



Another example:



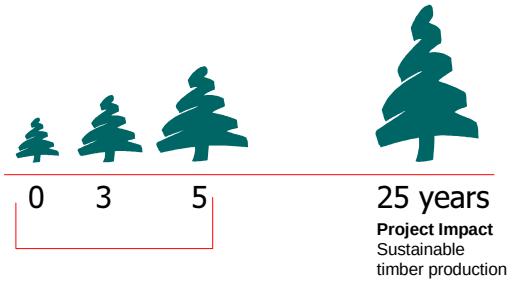
Practical Indicators

Indicators must be practical in terms of ease-of-use, affordability and attribution. Does the project have (or will it have) the methodology and expertise to collect the data use it? If the indicator data requires rigorous and complex analytic processes, can we afford it? And do the indicators really explain what we are trying to achieve? Keep in mind, collecting data on indicators to measure performance will add activities and costs to the project.

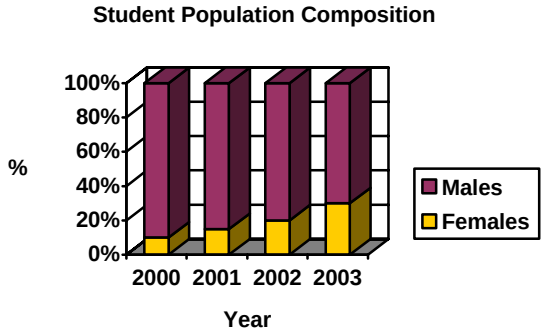
Leading and Process Indicators

Some projects show impact only after completion of the project. For very long term projects, you may not be able to wait that long to validate whether the Output strategy is really working. Traditionally, impact evaluation has been a separate process from monitoring project progress. However, since most development projects demand a high degree of learning in order to improve and direct the Output strategy during implementation feedback is needed about the potential effectiveness of the project . This may require a special kind of indicator called a Leading Indicator that may give us some confidence (or cause for alarm) early in the life of the project. Here are some examples of leading indicators.

Leading indicators do not measure the impact we desire, however, they do signal whether or not a process is in place that is moving toward the desired impact.



Case I: Sustainable timber production may not materialize for 25 years after the start of the project. We might be able to accept the height and survival rate of seedlings at interim stages as a leading indicator of long term impact.



Case II: Increased production of the secondary school graduates will take several years. Some promising process or leading indicators might include: increased female enrollment rates, improved retention rates, increased transition rates, reduced drop-out rates.

Proxy Indicators

Not all potential indicators are practical. They may be either too difficult or too expensive to gather the data and use. For example, measuring actual rural income levels may be difficult or costly. Instead, proxy indicators — such as the number of community bicycles, or the number of televisions may be a more practical — if less precise — indicator of the general trend. The customer of the project is a useful source of suggestions for proxy options.

CAS Goal Level Indicators

Goal level indicators provide a focus for the D.O. impact indicators.

It will take more than one project (Development Objective) to achieve the CAS Goal. CAS Goal level indicators often describe the program or sector objectives to several projects are directed. For this reason, the CAS Goal level indicators include targets beyond the scope of the project, such as increased small farmer income, where increases result from the combined impact of several projects or conditions. Improved rice yields could be one of the necessary conditions; however, to achieve levels set at the CAS Goal level in turn may assume favorable pricing policy, government subsidies, market prices, improved markets, farm-to-market roads, etc.

The CAS Goal may be stated in broad, expansive terms: Poverty reduced. Nevertheless, it is important to define how much poverty reduction is anticipated and for whom.

For example, there may be several options for poverty measurement indicators:

- *Employment status*
- *Education status*
- *Health status*
- *Nutrition status*
- *Income status*
- *Availability of shelter, sanitation and potable water*
- *Et al*

There may also be several choices of customer:

- all citizens
- all females
- pregnant women
- children under 5
- Eastern Province small scale farmers etc.

Development Objective Level Indicators

The Development Objective (D.O.) is the primary reason for the project, and for producing Outputs. The D.O. should define the change in behavior of the primary beneficiaries, or the change in the way institutions function (or systems perform) as a result of the project's Outputs.

This often makes defining D.O. indicators and setting targets difficult and complex. Nevertheless, the D.O. indicators (also called End of Project Impact: EOPI), also require QQT targeting. Getting clarity on D.O. level indicators first makes it easier to set Output level indicators.

D.O. indicators should describe project: Benefits & Expected Value

- *Internal Rate of Return on Investment*
- *Impact*
- *Effectiveness*

Outputs (as measured by their indicators) can not justify project expenditures. They are simply a means to achieving an impact. Therefore a cost/benefit or cost/effectiveness analysis should compare project costs (Inputs) to project impact (Development Objective EOPI) rather than to the Outputs.

Further examples of D.O. level indicators:

- Small farmer agricultural production increased from x to y per annum
- Private sector competitiveness improved with x% increased investment, y export sales, z new business starts, et al, by x date
- Performance of the legal system improved with # increased cases of alternative dispute resolution, reduction of case processing time from x to y, # cases processed per mth
- Environmentally friendly power system in operation in terms of Kw power provided to # rate powers with lower emissions levels
- Telecommunications sector reformed and liberalized with issuance of # additional operators licenses, regulatory framework established
- Transportation services improved with % reduction in delays of departures, % on time arrivals, % reduction in passenger complaints

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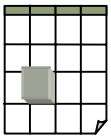
Add Leading Indicators to EOPI:

Development Objective EOPI indicators will often require the use of leading indicators. Look at the example below

Development Objective	EOPI Performance Indicator
More, better trained, equitable mix of students graduated from secondary school. 	1.1 X# students (40% female / 60% male) from rural communities graduate from secondary schools in the northwest region per/annum with test scores of a minimum of x%, by end of project. **Leading Indicators:** 1.2 Female enrollment rates in year one 1.3 Decline in dropout rate in year two 1.4 Transition rates increased in year two 1.5 Improved test scores using new curriculum by end year three.

Output level assumptions are a good source of leading indicators. If the assumption holds true (or the risk does not materialize), it is a good leading indicator of success at the D.O. level. Likewise, monitoring Output and Component Activity-level assumptions provides an early-warning of external difficulties in project implementation.

Output Level Indicators



Think of Output indicators and targets as the value the implementation of the components will bring to the project and the key areas for which the implementation team must work to achieve.. The Output performance indicators and targets define the implementation management group's terms of accountability.

Tailor Output indicators and targets to achieve D.O. level outcome/impact. Outcome/impact is the only reason for doing Outputs and indicators define the causal relationship between Outputs and D.O. impact. The very process of defining and targeting these indicators will also help shape the synergy among the Outputs and opportunities for integration.

Outputs	Performance Indicator
1. Fruit, vegetable and provision halls constructed and operational.	1.1 A combined trading area of 12,700 square meters connected to the public utilities infrastructure and operational by 199x. 1.2 Market has equivalent to 20 tons per square meter of trading floor area.
2. Demand driven marketing and infrastructure services developed and provided.	2.1 Client driven marketing support* (see description) provided by on-site consulting team of x# trained* (see description) professionals responding to y level demand per week from z date. 2.2 Infrastructure technical support services* (see description) team established, operational and responding to demand for x type services at y capacity levels from 200x.
3. Farmers association program designed and implemented.	1.1 A pilot association scheme, designed, operational, validated and plans developed, meeting x criteria, operational by 199x and prepared to be multiplied by 199x. 1.2 Establishment of 20 community-based farmer associations engaged in grading, packaging, and other market value added related services by 199x.

Avoid These Mistakes

Lack of Independence

Do not use indicators at one level to measure performance at another. Many projects have this weakness! Remember that indicators describe the objectives in the first column, they do not cause them.

For example, the following indicators and targets:

Development Objective	Performance Indicators
Improved performance of the Forest Department	1. Improved work planning systems installed and operational 2. Staff development program implemented 3. Forest management policy framework improved

do not measure Improved performance of the Forest Department.

They merely measure some attributes of improved performance borrowed from the Output level.

The more likely indicators and targets for improved performance might include:

> *Increased # of bio-diverse hectares demarcated, protected with sustainable cooperative forest management programs by end of 200x.*

This is the Forest Department doing its job; performing.

Look at some of the other examples.

Goals, DOs & Outputs	Indicator?	Better Indicator
Agriculture productivity increased.	Extension services improved.	# tons; quality of sorghum production.
Transport services improved.	Roads & bridges rehabilitated.	X days of on-time bus service
Health status improved.	Improved access to health services.	Infant mortality rates reduced from x to y
School system improved.	Institutional capacity built.	# and quality of female graduates from secondary school.
Unemployment reduced.	% of unemployed trained.	Unemployment rate reduced from x to y.
Road network upgraded, improved.	Vehicle maintenance costs reduced.	# kilometers of class A roads constructed and maintained.
Village funds established.	Infrastructure improved.	# village funds meeting criteria established and submitting proposals
Credit program implemented.	Farmers' productivity increased.	# small farmer loans at x$ volume processed.

Input Level Indicators

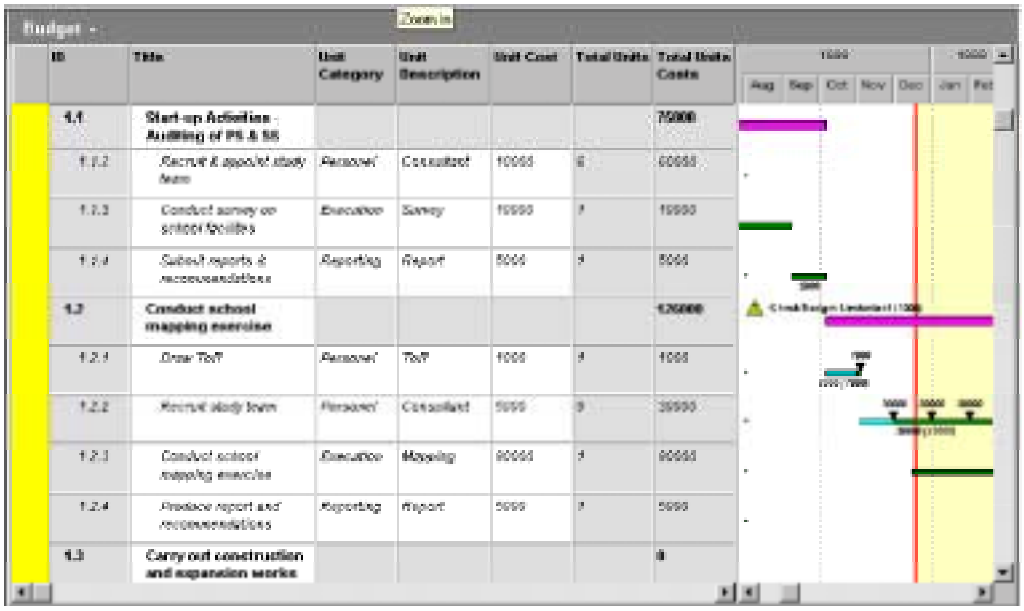
The are several ways to measure the components in the first column:

- *Dollar budget*
- *Disbursement schedules*
- *Time requirements and implementation schedules*
- *Resource requirements (people, level of effort or equipment), resource utilization.*

Narrative Summary	Performance Indicators	
Components:	**Inputs:**	
1. Conduct start-up activities	TA	$ 230,000
2. Conduct school mapping exercise	Personnel	430,000
3. Carry out construction	Equipment	535,000
5. Carry out expansion	Training	205,000
	PIU	413,000

Typically, Inputs are measured as a Performance Based Budget, summarizing the cost of the Component Activities required to achieve the Outputs. To get to this budget, develop a preliminary Work Breakdown Structure, Gantt Chart, and cost out activities and tasks in the first column.

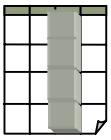
This process gives a practical idea of what is required, how realistic indicators are and what is affordable. Anticipating implementation requirements in this way will result in a much stronger project design.



Indicators Checklist

✓

- *Specific in terms of quantity, quality, time, location and target group.*
- *Measure what is important about the achievement of objectives.*
- *Indicators measure change at each level. They are independent from indicators at higher and lower levels.*
- *A cost-effective means of verification is available (statistics, interviews, and records).*
- *Leading Indicators included to evaluate D.O. and Output level achievement before end-of-project.*



MONITORING & EVALUATION

Most bank projects are not blueprints. They are implemented under uncertain conditions. Many times agreement about the long-term D.O. impact of the project can be reached more readily than the near-term Output strategy to attain it. This may necessitate establishing a provisional set of Outputs, with the intent to learn how to achieve the desired impact during implementation. Sometimes, Outputs are structured in phases. In any event, discovery is an essential dimension of implementation.

Projects are a structured form of discovery. Ask good questions and be open to new possibilities.

Various members of the Project Management Group (PMG), at the operational, strategic & policy levels, should work together to:

Monitor the conversion of inputs into Outputs:

Are we doing the project right?

Evaluate the conversion of Outputs into D.O. impact.

Are we doing the right project?

Process projects are: Ready, Fire, Aim!

Blueprint projects are: Ready, Aim, Fire!

Four Feasibility Questions:

1. Is it working?

2. Can it be improved?

3. Is there a better way?

4. Is it worth it?

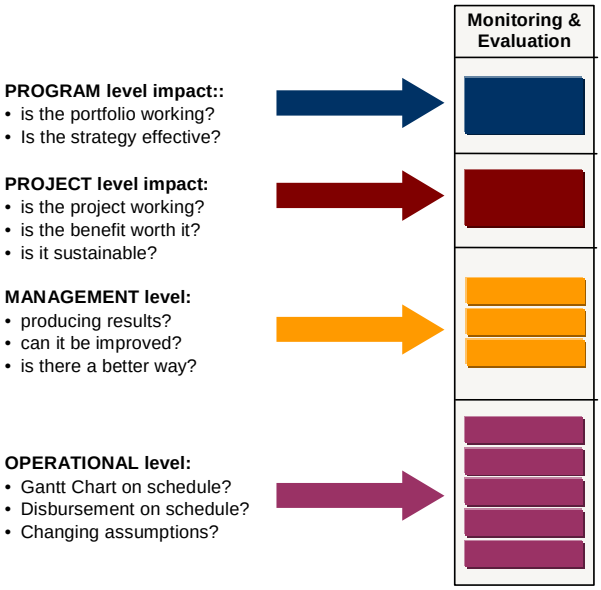
Many stakeholders are interested in learning how the project is being implemented, and whether it is having any impact. The Monitoring & Evaluation system defines the level, people, events, process, documents and information used to monitor and evaluate the project.

There are multiple levels of the system:

Program level - Evaluation: reviewing early evidence or leading indicators of Development Objective and CAS Goal

Management Level - Performance Monitoring: reviewing achievement of Outputs and progress towards the PDO outcome.

Operational Level - Progress Monitoring: reviewing actual activity implementation status vs. time plans and disbursement schedule and milestones.



In monitoring & evaluating progress, a variety of techniques can be used to organize the several participants: focus groups, workshops, conferences, team meetings. At the D.O. and Outputs levels of applied R&D and LIL projects the process is often peer or expert review through a variety of events: weekly meetings, monthly progress updates, Quarterly Reviews, Semi-annual evaluations, annual strategic re-planning, annual work planning, special performance improvement planning sessions, among others. The starting point for documentation is the Project Implementation Management System (PIMS) which summarizes the work plans and will incorporate lessons learned and revisions over time.

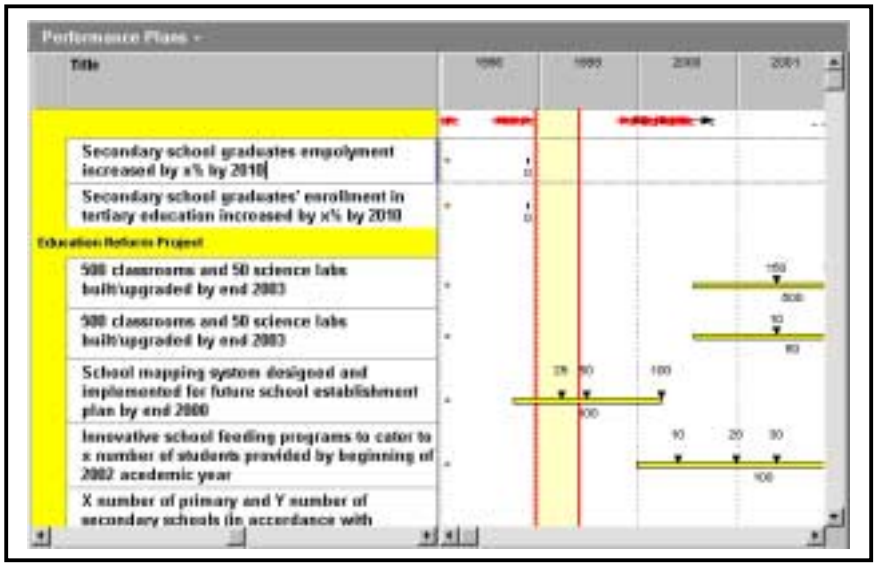
A Monitoring & Evaluation system takes time to develop and costs money to operate. Budget for M&E, and include the activities in the project activity plans for the PMG.

Evaluation as a Monitoring Function

Include the early and on-going evaluation of D.O. level leading, process and proxy indicators in the monitoring of day-to-day project implementation. Talk to customers through surveys, focus groups and interviews. Get anecdotal evidence about their experiences. Encourage the implementation team to look for evidence of impact.

Performance Monitoring Plan

Use a Performance Monitoring plan to track progress in achieving Output level results. The Logframe supplies the Indicators and milestones of Output achievement over time. Also include leading indicators of D.O. in the plan.



Setting Triggers

Some performance indicator milestones may serve to trigger funding decisions for moving forward to subsequent phases of implementation. In the examples below, the design team selected triggers from among the performance indicators. Borrower and Bank should set these triggers jointly to define how much success is required to trigger moving to the next phase.

Example: Coral Reef Economic Development

Narrative Summary	Performance Indicators
Goal Coral reef system in productive use on a sustainable basis.	1. Coral Reef Mortality Index (CMI) (rehabilitation indicator) 2. Butterfly fish counts for existing species (bio-diversity indicator) 3. Average income per capita of target groups in coastal communities (welfare indicator) 4. Average productivity of target species such as groupers (catch per unit of effort) (sustainable use indicator)
D.O. Communities comply with national and regional environmental regulations for preservation of national coral reef system.	1. 60% of community members in pilot areas are satisfied with the regulations 2. Compliance rates in pilot sites are > than 10% of the baseline figure 3. 10% decrease in the number of infringements (reported)
Outputs: The consistent and effective enforcement of national and regional level regulations is improved	1. 90% of infringements lead to proper enforcement by national and regional authorities. 2. Viable framework for a national coral reef system adopted within 8 months of development 3. Community-based management pilots evaluated as workable models.

Example: Education Project

Narrative Summary	Performance Indicators	Baseline	Phase II triggers
D.O.			
Performance of the Education System improved	1. Completion rates	55%	63%
	2. Repetition rates	4%	3%
	3. Dropout rates	4.5%	3.5%
	4. Illiteracy rates	24%	22%

An Annual Learning System Calendar

Discovery is a year-round event.

Establish an annual performance cycle of management events. These might include:

- *Project launch Workshop (one time)*
- *Monitoring & Evaluation system Design Workshop*
- *Weekly Team Meetings*
- *Monthly Update and Problem Solving Meetings*
- *Quarterly Review & Risk Management Workshop*
- *Mid-year Performance Improvement Planning Workshop*
- *Year End Review Workshop*
- *Annual Strategic Planning Retreat*
- *Annual Work Planning Workshop*

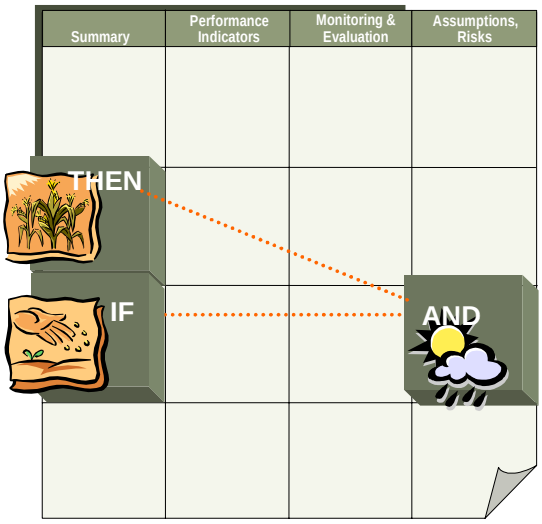
The cycle of management events should include a wide variety of stakeholders, with various levels of participation.

When we shift doubt into uncertainty, we are free to create new possibilities.

ASSUMPTIONS AND RISKS

Assumptions are conditions or factors over which the project either chooses not to exert control or does not have control. This is called the external logic of the project because these conditions lie outside the project's accountability.

Assumptions complete the "if/then" logic between each level by adding the conjunction AND (describing additional necessary and sufficient conditions). Determine the Assumptions by asking "What conditions must exist in addition to my Component, Output, D.O. and CAS Goal in order to achieve the next level?"



Steps

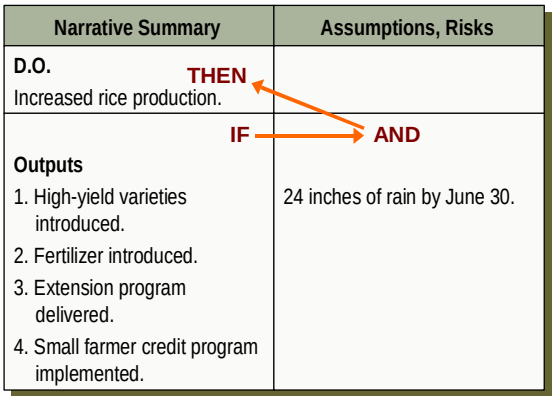
1. **Identify important assumptions stated as positive conditions critical to the causal logic.**
2. **Make general statements more specific using Performance Indicators.**
3. **Analyze the critical assumptions (51%-100% risk levels) in terms of their probability and impact of failing to materialize.**

   Rate the risk of the Development Objective (average of output & assumptions risk levels)
4. **Develop mitigation strategy for the higher risk and killer assumptions.**
5. **Decide whether or not to proceed.**

Assumptions Step #1: Identify Key, Important Assumptions

The starting point is the rule of Necessity & Sufficiency. Use the If/AND/Then logic as a guide. Is this assumption necessary to the logic of the project design?

In the following example, a particular Output strategy is proposed to achieve an increase in rice production. However, the new seed technology will work only if there are 24 inches of rain by June each cropping season. Otherwise the expected value (D.O. impact) will be diminished. Sufficient rainfall thus is an important assumption to the logic of the project. The Outputs are necessary, but are not sufficient.



Avoid assumptions which are unrealistic, such as no inflation, or not critical to the causal logic, or which trivialize the design. For example, an assumption such as no outbreak of war is surely an important condition; however, it does not help the design. If there is war, it may be self evident that there will be no project.

Levels of Assumptions

Begin with the most obvious ones and let the team follow its interests. Operational team members may focus on Component-to-Output Assumptions, while more strategic or policy level team members consider the Output-to-D.O. conditions. Some customers and stakeholders may bring attention to D.O.-to-CAS Goal conditions.

For example, at the D.O. level of research projects the primary Assumptions will relate to: "supportive infrastructure, institutional capacities, and national policies to extend and use the new technology."

Output Level Assumptions for forestry and natural resource projects may begin with concern for overreaching factors such as "no prolonged drought," "macro-economic policy environment remains favorable," "Government supports natural resource policy," "population growth rate remains between x-y% during project life," "political situation in country remains stable."

However, at the Component-to-Output level, the team will have more practical concerns: "construction materials available in the market", "project funds will be released on schedule", "local distribution systems will function as expected".

Assumptions Step #2: Refine General Statements

> Uncertainty just isn't what it used to be.

Develop performance indicators for Assumptions in the manner as for the internal logic of the project design. First, refine general statements into specific, measurable conditions. State them as positive conditions that must materialize if the project is to succeed. The same rules for objectives (in the first column) apply to assumptions: use strong action verb and the form of completed future action format. Expect project teams to observe and monitor the status of key Assumptions. To make this meaningful, give assumptions QQT indicators and target them. The more precisely the Assumptions are defined, the easier it will be to track and monitor them.

Get Specific

Generic:
Administrative capacity.

Specific:
Administrative capacity building initiatives for the rural banking system are implemented successfully and institutional performance is improved.

Even More Specific:
Rural banks can adequately assess the soundness of potential borrowers and the viability of proposed investments by June 200X, the time the credit Output is operational.

In the preceding farming example, an important assumption is needed to make regarding the credit program Output. The project was not accountable for the institutional ability of rural banks to manage the project's credit Output. [Another donor was supposed to do the training and related capacity building.] The team started with the statement:

> *"administrative capacity"*

This is too general to be of use. It has no verb or sense of time, and cannot be monitored. The team was concerned that the rural banks be able to handle the credit program by the time needed to implement the project. The assumption was restated as:

> *"Administrative capacity building initiatives for the rural banking system are implemented successfully and institutional performance is improved."*

However it still needs to be linked more specifically to the causal logic of the project. The team rewrote it again:

> *"Rural banks can adequately assess the soundness of potential borrowers and the viability of proposed investments by June 200X, the time the credit Output is operational."*

This statement could be targeted (QQT) in relationship to the project design.

Their Credit System Output would manage the number and location of the banks, make them accessible to their clients, establish criteria for potential borrowers and loan processing procedures, by the time this capacity is in place.

Look at these examples of making general assumptions more specific include:

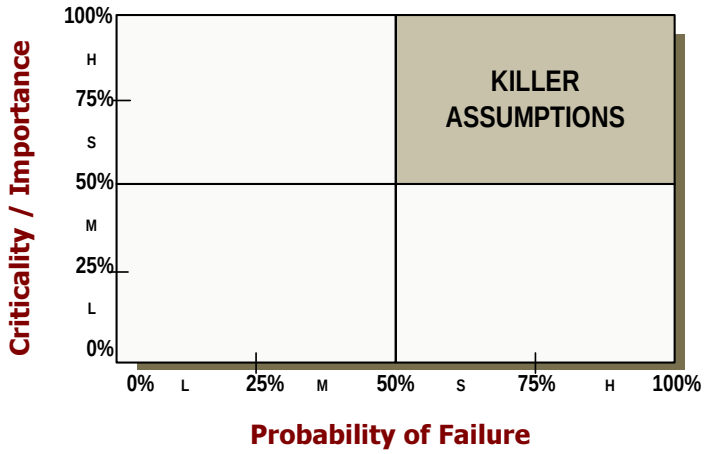
- "Local/national market condition/prices" might read "the area irrigated is not adversely affected by distortions in energy pricing"

- “No drought” should be improved to read "10 inches of rainfall between May and October."
- "Adequate funding" should be improved to read "3 million dollars counterpart funding supplied by May 1994."
- "Food supplies available" should be improved to read "Agencies maintain 6 tons per month rice supply to Site 2”

Assumptions Step #3: Analyze their Importance and Probability – Rate the Risk

Focus on assumptions that are critical to the success of the project and have a high risk of failure. Try to assess the level of risk in these critical assumptions. Killer Assumptions are of particular interest. Use percentages, or use a simple rating system like the one below to identify the downside risk that the condition may not materialize (fail to hold true). Remember focus on the critical assumptions (the ones you locate in the upper half of Assumptions Matrix). The lower risk ones may increase in risk over time so they must be tracked. If assumptions are not critical (fall in lower half of matrix), do not include tem for further analysis.

Assumption Matrix



Estimate both Criticality and Probability.

Sample Rating Scale	
High	(76%-100%)
Substantial	(51%-75%)
Moderate	(26%-50%)
Low	(0%-25%)

The average of the risks at a particular level (assuming no risk in the Output strategy) indicates the expected value of the project at the next level. For example, in the case

above, if there is a downside risk of 80% (high) that there will not be 10 inches of rain by June to grow high yield variety rice seed, then the expected value of the D.O. (increased rice production) is reduced to 20%. While not an exact calculation, this approach indicates the essential relationship between internal and external risk.

Assumptions Step #4: Develop/Implement Mitigation Strategy

Once Assumptions have been specified and targeted they may be used to guide decisions about project design and management. High performance project teams spend a great deal of time trying to influence the probability of their project Assumptions. Assumptions are critical to the success of the project but some may be too risky to proceed without further project modification.

The team will need to take a strongly pro-active role in monitoring these assumptions. Keep in mind that the team is not accountable for the assumptions. By definition, they lay outside its control. However, the assumptions do represent force majeure when they fail. The project team can use its influence (or control of others) to monitor and manage the assumptions.

Generic:
Macro-economic stability

Specific:
Fiscal deficit reduced bt 40% by end of project year 2.

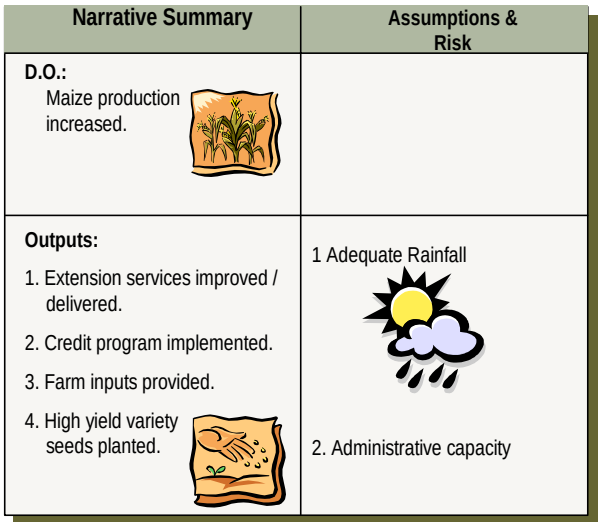
Rating:
Criticality - substantial 51% - 75%
Probability - substantial 51% - 75%

Mitigation Strategy:
Develop/implement enforcement strategy for tax collection
Develop/implement communications campaign on the social costs of tax evasion.

There are six management alternatives to Killer Assumptions and high risk situations:
1. Change design: add outputs or Components.
2. Add a new project.
3. Abandon project (Killer Assumptions).
4. Monitor & use influence.
5. Take out insurance (performance bond, etc.)
6. Do nothing: risk/benefit from continuing.

Decide how to proceed and/or deflect (e.g. contract out) risk.

In the example, for instance, when the risk of inadequate rainfall remained High, the project design team might consider:



- *Changing the technology of the project by using drought resistant seed varieties,*
- *Working with another agency to introduce an irrigation system,*
- *Developing an irrigation system inside the project as an additional Output to be managed,*
- *Reducing the project yield (D.O. level expectations) or*
- *Abandoning the project entirely.*

Use a Risk Analysis Work Table such as the one below to analyze each of your highly critical/highly risky assumptions and generate a mitigation strategy that the project team or others can implement.

Risk Analysis Work Table

Assumptions	Performance Indicators	Criticality (1-4)	Probability (1-4)	Possible Killer (Y/N)	Mitigation Strategy
Assumption 1 (A1) Adequate rainfall.	Indicator 1 for A1 24" rainfall by June 30 per annum.	#4/High	#4/High	Y S*V*P	Be prepared to switch to drought resistant varieties if trend in rainfall drops below 99 levels.
	Indicator 2 for A1				
	Indicator 3 for A1				

S = stake or interest, if appropriate; V = value to stakeholder; P = power to influence the probability of the assumption/risk. A product of the V X P can give you a relative idea of where you can take management action and where you may need to warn/advise others.

The table encourages the team to identify Killer Assumptions and the stakeholders concerned with whether they materialize. Identify stakeholders and engage them in the risk mitigation strategy.

For example, where national policies are concerned, the team might try to get the right people involved in policy dialogue, or at minimum alert policy makers to the potential economic and social benefits to be derived from their policies, and the successful implementation of the project.

Assumptions & Risk Step #5: Manage Assumptions during Implementation

Risk levels change constantly. Expect to monitor assumptions and risks during implementation and adjust the project plans in response to changing assumptions. The fourth column of the logframe describes results necessary for the achievement of higher-level outcomes; it is just that they lay outside of the project's control and/or immediate responsibility. Conduct a performance assessment as a part of supervision on the external assumptions as well as the internal features of the project.

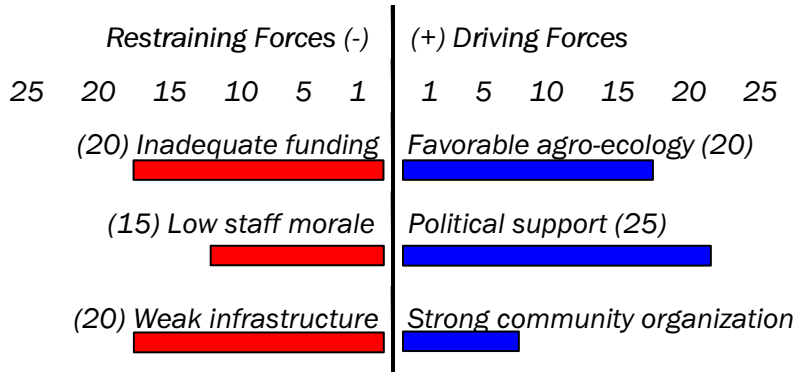
Use the following kind of table to assess the planned versus actual occurrence of the project assumptions, the positive or negative driving forces involved, and any possible mitigation activities that may be added to the internal activity list of the project.

Assumption Performance Analysis Work Table

Assumptions	% Completed to Date	Planned	Performance Gap	Driving/ Restraining Forces +/–	Impact (1-5)	Possibility of Solution (1-5)	Total	Actions Required
DO to Goal 1 2				(see force field model)	See impact scale below	See influence scale below		
Output to DO 1 2								
Components to Outputs 1 2								

To improve the quality of the risk mitigation action strategy, use an Assumptions Performance Analysis Work Table. Assess planned progress versus actual and define the gap in expectations. The simple Force Field Analysis method summarized below. Basically, it begins with the Performance Gap as the definition of the current level of risk. The team uses the graphic method to identify the restraining forces that cause the performance gap and promising driving forces that might resolve the performance gap. Give each of these forces a relative strength, positive or negative, and use it as a starting point for developing a set of actions that reduce the restraining forces and that take advantage of driving forces Finally, add the new risk mitigation activities to the current implementation plans.

Analyzing Positive and Negative Forces



Impact on Project
5=Extremely Important
4=Very Important
3=Moderately Important
2=Slightly Important
1=Little Importance

Can Influence/Solve or Use
5=Very easy to influence/solve or use
4=Easy to influence/solve or use
3=Rather difficult to influence/solve or use
2=Considerably difficult to influence/solve or use
1=Extremely difficult to influence/solve or use

Assumptions Checklist

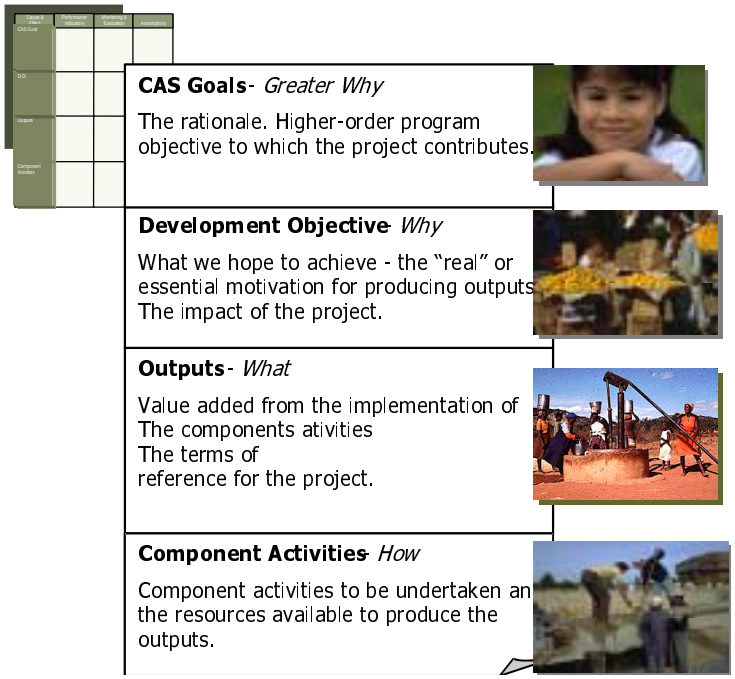
✓

- *Formulated as desirable, positive conditions.*
- *Linked to the appropriate project level.*
- *Specific, have risk ratings, can be monitored.*
- *Only critical Assumptions are included.*
- *Very low risk Assumptions not included.*
- *High risk Assumptions that are both important and unlikely to occur (Killer Assumptions) are managed.*
- *The Assumptions at the Component level do not include any "conditions precedent."*
- *The remaining Assumptions are precisely and verifiably defined and given risk ratings.*

> "Ought implies can!"
>
> Immanuel Kant

MANAGEABLE INTEREST

Accountability must have boundaries. People can only be expected to do what they are able to do. Manageable Interest is based on the concept of Point-of-View[8] which establishes whose project it is. By definition, project implementers are accountable for producing Outputs on schedule and within budget given that the Assumptions at the activity level hold true. In fact, the Logframe Results Framework (objectives hierarchy) should be constructed so that this is the case.



Three key concepts from contract law are useful:

- *Meeting of the minds*
- *Deliverables*
- *Force majeure*

By definition, the D.O. (meeting of the minds) is outside the accountability of the project team. Although the D.O. the reason why the Outputs (deliverables) are being undertaken, it is ultimately beyond the control of the implementers. The principle is that an implementation team can be held accountable for producing a set of results (Outputs), but not for the response; i.e., what people or institutions will do with those results In other words, the Outputs are within the Manageable Interest of the project implementation group, but not the D.O.

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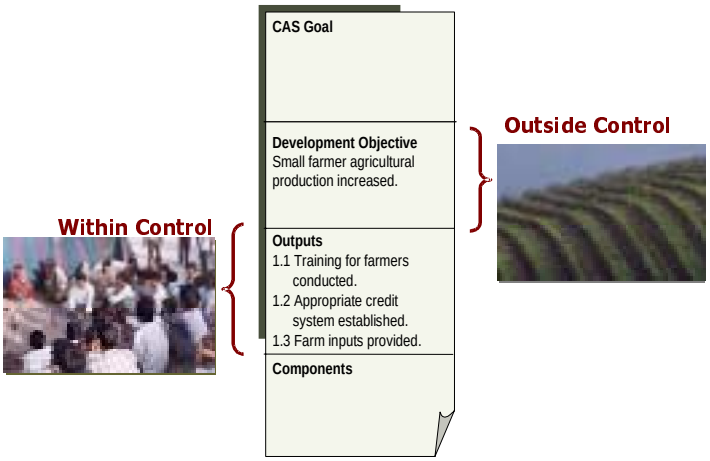
[8] *See the section on Point-of-View, page9*



The project team should manage Outputs so as to produce the desired D.O. impact, but cannot be held accountable for attaining it. For example, if the project Output intervention strategy is designed to provide farmers with new skills and inputs (credit, seed, tools, etc.), then the D.O. defines what farmers are expected to do differently as a result of these Outputs; i.e., produce more food (change in behavior or performance). But the project implementers cannot be held accountable for the change in farmer behavior.

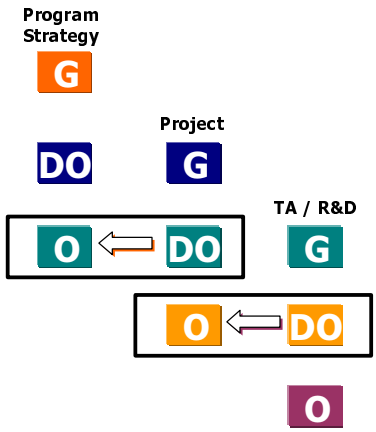
In a similar vein, assumptions describe the external risk for the project. However, the project implementers are not accountable for Assumptions. By definition, these are outside project control. The project team should monitor changes in Assumptions in order to mitigate risk, but the team is not accountable for attaining them. When Assumptions fail or change, this management agreement is abrogated. This constitutes force majeure.

Manageable Interest

- **Accountable** for producing or co-producing Outputs with project resources.
- **Responsible** for adapting Output strategy to accomplish Development Objective.
- **Responsible** for monitoring assumptions and recommending corrective action.
- **Responsible** for use management methods which organize teams, customers and resources.

Escalating Manageable Interest

The D.O. at the project level may be the Output at the program level. One group's D.O. may be another group's Output. At the program or strategic level, accomplishment of the project D.O. is the Output responsibility of a Borrower or Agency since the Bank along with their Borrower enters into an agreement about a return on investment or social benefit they will achieve. The Bank will assist the Borrower in preparing and validating the project design. The Bank has a vested interest in project performance (D.O. accomplishment) but ultimately it is the Borrower (usually at the Ministry of Finance level, or implementing Ministry) which is accountable for turning project Outputs into D.O. impact. The Bank can be held accountable for the D.O. because their span of control and the resources they can bring to the portfolio at the program level are greater than that of the project implementation group.



Development Objective impact is our most important output!

ADAPTABLE LENDING: APL & LIL

Traditionally, the Bank has approached development investments as if it could identify known solutions and work from reliable assumptions, confident that rigorous problem and project analysis combined with rational planning could produce a quality design. However, things have changed. Now development projects often require a technology, an approach, a model, or capacity that the Bank cannot simply identify and transfer.

For example, despite the Bank's extensive experience in funding education projects, a community-based model for decentralizing school management may be needed in a particular case and various approaches tested to find one that works best in that environment.

Adaptable Lending (AL) is intended to respond to our borrower's requirements in such situations. Borrowers are increasingly looking to the Bank for assistance with long-term institution-building, people-centered projects, in technologically new areas, and with fewer pre-planned processes. Borrowers want rapid response to their development problems, with a long-term commitment but flexibility to continuously adapt the project to desired outcomes. The Adaptable Program Loan (APL) and the Learning & Innovation Loan (LIL) are two instruments to respond to these requirements.

These flexible instruments institutionalize and extend best practices that have emerged in the development community over the past twenty years and foster:

- *Greater flexibility in adapting project design and financing over time;*
- *A structured approach to generating new knowledge and applying it where clear and proven models are not available for the design;*
- *Encouragement of an "implementation results" culture, based on learning, partnership and experimentation;*
- *Reduction of risks to both lender and borrower under conditions of high uncertainty.*

The Adaptable Loan (APL)

The APL assumes that the Bank knows what the Borrower wants long-term, however, neither we nor they are sure how, or are not prepared institutionally to get there. Institutional capacity, or a particular technology or method may be missing, or we are embarking on new ground and are not sure how to progress. However we believe that these conditions can be put in place through phased implementation. In other words, we must learn as we go and grow as we go. Each phase of the project will focus on the D.O. and build on each subsequent phase.

The Adaptable Loan provides funding for a long-term development program (10-12 years), starting with an initial Phase of an Output strategy (2-3 years), and followed by subsequent phases, according to agreed milestones and benchmarks (called triggers) for realizing the program's objectives.

The key criteria for the Adaptable Loan are:

- Agreement on the long-term development objective;
- Demonstrable cost-benefits and justification based on broadly acknowledged economic (and other) parameters for the project; and
- As the project is implemented, a logical sequence of phased Outputs strategies with defined milestones, performance indicators, policy requirements, and explicit linkages to the project objective.

Multiple Time Frames

Look at the APL model and the example that follows. The Logframe establishes two time references. The Goal and the D.O. (and related indicators) are set in terms of 10-12 years, on the last day of the program. The Outputs are set in terms of the last day of the current phase (1-3 years, typically). The Inputs are set at 10-12 years and define the overall budget in order to establish a benefit/cost relationship.

However, look again at the D.O. indicators and you will see that there are two kinds of indicators:

- *Those that measure D.O. impact at the end of the program and*
- *phased, leading indicators that provide guidance to implementers whether they are making an impact with their Output strategy throughout implementation.*

The Input box describes the budget for the current phase.

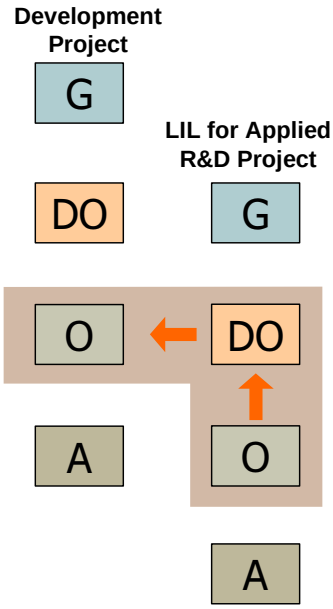
Some Output milestone indicators and D.O. leading indicators will trigger implementation of the next phase.

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions, Risks
CAS Goal World Bank CAS Goals	Indicators of World Bank or long term strategic achievement.	Indicators at this level are generally monitored and or evaluated via various sector or country reports generated outside the project	**(S.G. to Supergoal)**
Program Purpose The long-term development objective of the program. This vision statement conveys the improved state of the sector at the completion of all phases of the. **Program Phasing:** A phased approach is pursued in order to attain the vision of an APL, each phase having its own objective. The statement of phasing conveys the theme of each phase as a short descriptive title (e.g., Phase II: privitization of distribution..)	*End of Program Indicators.* The key indicators which are expected to be achieved upon completion of the program as a whole	Indicators of program purpose are generally monitored and/or evaluated via various project reports, supervision mission reports and mid-term and final evaluation reports.	**(D.O. to CAS Goal)** . Assuming that the program purpose is achieved in the long term, list any additional assumptions needed to logically link it to achievement of the CAS goal.
Project Development Objective (PDO): A one sentence description of the behavioral change expected from the target-beneficiary group or institutions by the end of the project (Phase I of the program).	**Outcome Indicators** Key indicators specifying the results to be achieved by the end of the project (Phase I of the program)	Indicators of the PDO are generally monitored and/or evaluated via various project reports, supervision mission reports and mid-term and final evaluation reports.	Assuming that the PDO is achieved, list any additional assumptions needed to justify the project's contribution to the stated program purposel
Outputs The terms of reference for the first project (Phase I of the program). The value added of the components. There should be one output statement for each corresponding project component	Key performance indicators for each output specified in terms of quantity, quality and time.	*The Monitoring & Evaluation system for the Adaptable Loan.* Each Phase will produce the design for the next Phase. In order to produce the findings, conclusions and action recommendations required to design the subsequent phases, each Phase must include in its implementation a Monitoring and Evaluation System which provides structured learning about the effectiveness of the Phase's Output strategy in producing impact. It will be based on questions such as: "Is it working?", "Can it be improved?", "Is there a better way?", "Is it worth it?".	**(Output to D.O.)** Assuming that the outputs are achieved by the end of the project list any additional assumptions needed to achieve the PDO
Components Clusters of subcomponents and activities that are designed to produce a single project output	**Inputs** *List of component costs including contingencies.*	Inputs are generally monitored via progress reports and disbursement reports.	**(Component to Output)** Assuming that components and activities are implemented successfully, list any additional assumptions needed to achieve the outputs.

Learning is central to this kind of loan. The project design and the strategy for managing uncertainty is created in increments during implementation. Make this learning system explicit and engage the full range of stakeholders and implementers in defining and managing it.

Narrative Summary	Performance Indicators
CAS Goal **Program Purpose** Coral reefs and associated ecosystems in Indonesia protected, rehabilitated and in sustainable use while enhancing welfare of coastal communities. Program Phasing Phase I Policy Analysis and Capacity Building Phase II Policy Implementation Phase II: Policy Enforcement	1. Coral mortality index (CMI) /dead coral cover decreasing by an average of 1% per year (coral rehabilitation indicator). 2. Butterfly fish counts for existing species increasing by an average of 20% (bio-diversity indicator). 3. Average income per capita of target groups of coastal communities increasing by 5% p/a in real terms (welfare indicator). 4. Average productivity of target species such as groups (catch per unit of effort) increasing by 65% in managed reefs over 10 years (sustainable use indicator).
P.D.O. Pilot communitiies actively support the management of coral reef areas and the ecosystems	1. 75% of pilot communities have the majority of their members working within the regulatory framework 2. 90% of pilot communities are satisfied with their ability to manage the ecosystem as supported by government agencies
Outputs *Outputs for Phase I:* 1. An adequate system for enforcement of coral reef regulations is tested and in place for scale up. 2. Pilot community based management plans in 2 sites designed and tested. 3. Policy options for management and preservation of coral reefs are evaluated by by national and regional authorities.	*Indicators for end of Phase 1*

The Learning & Innovation Loan (LIL) as Applied R&D:



The LIL provides a framework for an innovative approach to development projects. They are results oriented: of short duration, highly focused and done for a specific purpose. Like applied research and development (R&D), the LIL is most effective when it serves clients and has a clearly defined relevance. Typically, the client for most LILs is another project. The LIL may be used to identify a new:
technology,
technique,
methodology,
approach

or to create:
an improved institutional capacity.

It each case, the technology or capacity that is developed should have an intended user of the innovation created by the LIL. This is the meaning of relevance. Look at the diagram. The LIL will use a set of Outputs to create the innovation. The purpose of the newly created technology or capacity is that it will be used by the customer in another project. In other words, the only reason for undertaking the LIL is to serve a higher level objective.

Look at the diagram below and notice that the D.O. can have two indicators. The first indicator describes the effectiveness of the innovation, and the second describes the use to which it will be put. The indicators are really two dimensions of the same outcome. The client will use something that works effectively.

Narrative Summary	Performance Indicators
CAS Goal Small farmer agriclutural production increased.	Small farmer agricultural production and productivity levels increased in areas using the improved technology as part of an integrated project strategy.
D.O. for Follow on Project **Striga resistant maize varieties are used by farmers in all striga infested areas of country X.**	**Production of maize in Striga-infested regions of country X are increased by 30% by 12/200X (maintaining x, y, quality standards) *(effectiveness)***
D.O. Effective Striga resistant maize varieties used in pilot areas of country X	1 Production of maize in Striga-infested research areas increased by 40% by 12/9X (maintaining x, y, quality standards) *(effectiveness)* 2 10 new projects using varieties and extension service recommendations data by 12/200X. *(use)*
Outputs 1 Striga resistant maize varieties identified. 2 Seed multiplication capacity of selected Sub-Saharan seed companies increased. 3 Striga research capacity of selected Sub-Saharan research institutes strengthened. 4 Information network for Striga researchers established and dissemination method developed.	1.1 2 Hybrid, 2 composite and 4 open varieties identified by 12/9X. 2.1 National seed company producing 200 MT of certified maize annually by 12/9X. 3.1 2 Maize breeders, 2 weed scientists, 1 agronomist and 1 plant biochemist trained and contracted at 3 selected research institutes by 2/9X. 4.1 Research methods/results disseminated through semi-annual network reports and conferences from 199X-200X. 4.2 Going to scale installation methodology developed and ready for use by other projects by end of research.

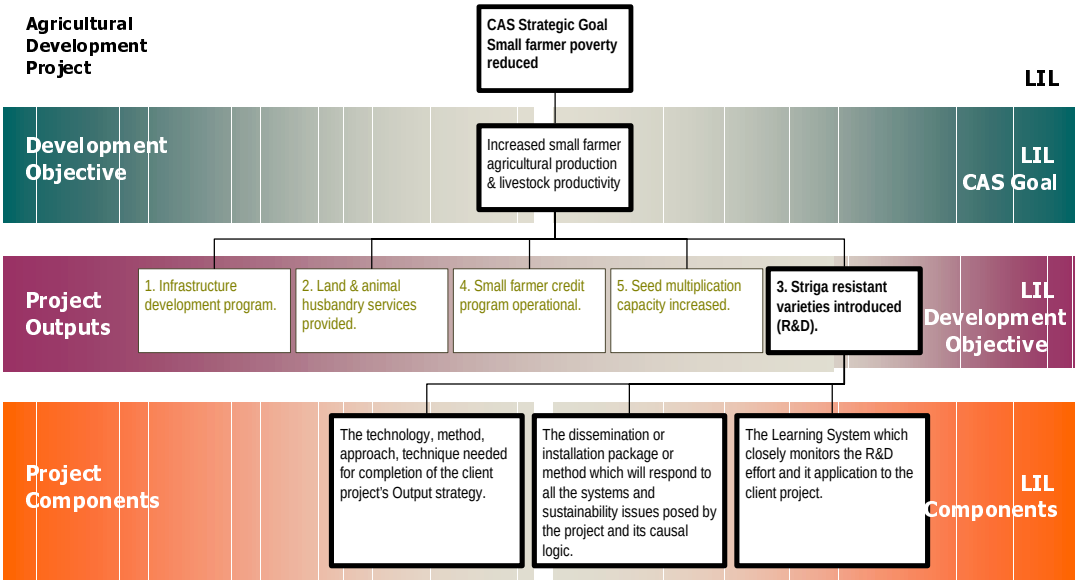
Structure of the LIL

Below, there are three examples of applied R&D type LIL projects: a seed technology, the development of a technical strategy and the development of a methodology that can be replicated. Their structure is very similar. There are usually at least three generic Output elements to the LIL as an innovation:

- *Output #1: the identification, piloting, and validation of the experimental technology, technique, approach, methodology or capacity.*
- *Outputs #2: The development of the dissemination or installation package, or the going to scale methodology.*
- *Output #3: The learning system and the LIL project team to manage implementation and assure the relevance of the work to the client.*

There may be an additional one:

- *Output #4: Capacity Building: the need to build the capacity to do #1 and #2 as they are being implemented.*



Narrative Summary	Performance Indicators
CAS Goal 1. Increase regional and local economic development led by private sector investment	1.1 annual economic growth is x% private sector led. 1.2 More than 50% of foreseen investments made by private sector.
P.D.O. for follow on Project Model methodologies replicated/expanded to other economic regions of the country.	1.1 X other regions adopt approved methodologies and tools. 1.2 Regional planning and public programming in x% economic regions are carried out according to methodologies design, tested and refined under the proposed project. 1.3 X% private investments planned for three years to come reflect regional priorities as determined by RDCs
P.D.O. Model methodologies replicated/expanded in selected pilot areas.	1.1 Pilot areas adopt approved methodologies and tools. 1.2 Planning and public programming in x% pilot areas are carried out according to methodologies design, tested and refined under the proposed project. .
Outputs 1. Regional Learning Package for improved regional planning and investment programming designed and tested in three selected regions. 2. Regional information systems designed, tested and established in three pilot regions. 3. Evaluation and dissemination mechanisms for expansion of the Regional Knowledge Model established and operational.	1.1 x# RDCs established in pilot sites. 1.2 Regional Development Frameworks mapped out in each pilot site according to public involvement guidelines. 1.3 Regional PIP decision making process decentralized in 3 pilot sites. 1.4 Regional round-tables for PIP preparation held in x# selected regions by state. 1.5 Sustainable Regional Information Systems (RIS) installed & operational in x# selected region, by end of project. 1.6 Regional & municipal public information centers established in each of the selected region (see description) by end of project. 2.1 Detailed design for information systems completed and systems installed in selected regions by x date. 2.2 guidelines, user's manual and all relevant documentation completed and ready for dissemination to other regions. 2.3 National TV staff trained in methods and tools for dissemination of the system. 3.1 National TV Planning Unit fully equipped and operational for dissemination of regional kits (RDCs, RDFs, RPIPs, RFICs) 3.2 Dissemination seminars held in x # regional by EoP. 3.3 Evaluation reports of opinions and interests from x # regions produced by y date. 3.4 Ex-post evaluation and financial audit of pilot experience completed and submitted by x date.

DESIGN QUALITY REVIEW

Improving the quality of project design and implementation is one of the keys to achieving greater project impact.

Section 1 of the Bank's Rapid Quality at Entry Assessment instrument is an important tool directly related to the Logframe.

Quality at Entry Assessment

#1: Project Concept, Objectives and Approach	Logframe reference
1. Project consistent with the CAS and sector strategy? (Rationale for Bank involvement? Policy environment conducive to good project implementation? Adequate sector knowledge underpinning project?)	Go the CAS goal and indicators to see the consistency. Review the Assumptions regarding the policy environment necessary for achieving D.O. and Goal level impact.
2. Rationale for implementing the project in the public sector?	Compare the public sector Output intervention strategy to a private sector or blended model. Can it be justified?
3. Clarity and realism of project objectives? (Can they be measured? Are they too demanding?)	Review the PDO Check the cause & effect. Is it a logical result of the Outputs? Check for tautology. Is it a restatement of the Outputs in different words? Review the indicators. Do they measure the PDO and are they independent from measures of results at other levels? Can the implementers measure them and are they affordable? Are they targeted with quantity, quality and time in a way that describes the client for the Outputs and the sustainability issues? Review the assumptions at the Output level. Are they killer assumptions with no risk mitigation strategy? Is the PDO outside the control of the implementers of the Outputs, but still the response of the client to the Outputs?
4. Appropriateness of project approach? (Blueprint vs. Flexible design? Pilot? Level	Define how much learning is required. Known solutions: (a traditional investment loan, or blueprint approach). Unknown solutions: (a

#1: Project Concept, Objectives and Approach	Logframe reference
of complexity?)	Learning & Innovation Loan). The approach should be justified by it relevance (the degree to which it achieves a PDO impact). Look at the PDO and the Output strategy. In the blueprint approach there is low risk in the Output strategy. In the APL, the Outputs are unknown and need to be discovered through implementation. The LIL and pilot are creating Outputs for use by a project.
5. Does project design adequately reflect lessons of experience? (Similar operations in the country, Bank's experience in the sector, OED findings)	Show how this design was validated elsewhere. Refer to specific situations in which this Output and Output Assumptions produced a relevant PDO impact. If this cannot be shown, explain what has been learned from past experiences, and what will work.
6. Appropriateness and realism of project conditionality, including balance between upfront action and conditionality?	Look at the external Assumptions at the Component/Activities and Output levels. How realistic is the causal relationship between these and the internal design of the project? Review the Conditions Precedent in the Logframe. Can these be met prior to project implementation?
7. Strength of Borrower commitment to the project?	Review the process by which the Logframe was prepared. How involved was the Borrower? Will they put their name on this Logframe? Did they participate in the Stakeholder Analysis, Problem & Objective Analysis, and the Logframe?

A basic set of project design quality questions using the Logframe format is shown on the next page.

Project Design Summary Checklist

Narrative Summary	Measurable Indicators	Monitoring & Supervision	Assumptions/Risks
Goal: The goal is clearly stated.	The Goal level indicators are objectively verifiable in terms of quantity, quality and time.		**(Goal to Mission)**:
PDO The project has one PDO, if possible. The PDO is not a reformulation of the Outputs. The PDO/impact is outside of the direct management control of the project team. The PDO is clearly stated.	**Impact/Outcomes:** The indicators at the PDO level are independent from the Outputs. They are a measure of the PDO, not a summary of the Outputs. The PDO indicators measure what is important and the project impact to be sustained.	This column identifies where the information for verifying each indicator of project impact will be found, and the process for evaluating them.	**DO to Goal:** The if/then relationship between the DO and the Country Strategy is logical and doesn't skip important steps.
Outputs: All the Outputs are necessary for accomplishing the PDO. The Outputs are clearly stated. The Outputs are stated as results Outputs describe the value added by the components.	**T.O.R.** The Output indicators are objectively verifiable in terms of quantity, quality, and time. The Outputs define the management responsibility of the project.	This column identifies where the information for verifying each indicator of project impact will be found, and the process for evaluating them.	**Output to DO:** The Outputs plus the Assumptions in this column produce the necessary and sufficient conditions for achieving the project's DO.
Components: The Activities define the action strategy for accomplishing each Output.	**Inputs/Resources:** The Inputs describe the costs and other resources required for accomplishing the PDO. They describe the performance budget for converting Inputs into Activities which achieve Outputs necessary for producing PDO impact.	This column identifies where the information for verifying each indicator of project impact will be found, and the process for evaluating them.	**Activities to Output:** The Assumptions are conditions outside the direct control of the project but necessary to achieve project Outputs.

Logframe Design Checklist

✓

___ 1. The project has one Development Objective.

___ 2. The Development Objective is not a reformulation of the Outputs.

___ 3. The Development Objective is outside the management accountability of the project.

___ 4. The Development Objective is clearly stated.

___ 5. All the Outputs are necessary for accomplishing the Development Objective.

___ 6. The Outputs are clearly stated as results.

___ 7. The Components define the action strategy for accomplishing each Output.

___ 8. The CAS Goal is clearly stated and is not a reformulation of the DO.

___ 9. The If/Then relationship between the Development Objective and CAS Goal does not skip important steps.

___ 10. The Assumptions describe, in positive terms, the important conditions external to the project which have a downside risk of not materializing.

___ 11. The Assumptions at the Component level do not include any “conditions precedent”. (These are required before Components can begin.)

___ 12. The Outputs plus the Assumptions at that level produce the necessary and sufficient conditions for achieving the Development Objective.

___ 13. The Development Objective plus Assumptions at that level describe the critical conditions for achieving the CAS Goal.

___ 14. The relationship between the Inputs and the Components is realistic.

___ 15. The relationship between the Outputs and the Development Objective is realistic.

___ 16. The vertical logic among Component Output, Development Objective, and CAS Goal is realistic as a whole.

___ 17. The indicators at the Development Objective level are independent from the Outputs. They are not a summary of Outputs but a measure of impact.

___ 18. The Development Objective indicators measure what is important; the impact, expected value, rate of return, the benefit.

___ 19. The Development Objective indicators have quantity, quality and time measures.

___ 20. The Output indicators are objectively verifiable in terms of quantity, quality and time.

___ 21. The CAS Goal-level indicators are objectively verifiable in terms of quantity, quality, and time.

___ 22. The Inputs described at the activity level define the resources required for accomplishing the Development Objective.

___ 23. The Monitoring & Evaluation system column identifies where the information for verifying each indicator will be found and the process for improving the design.

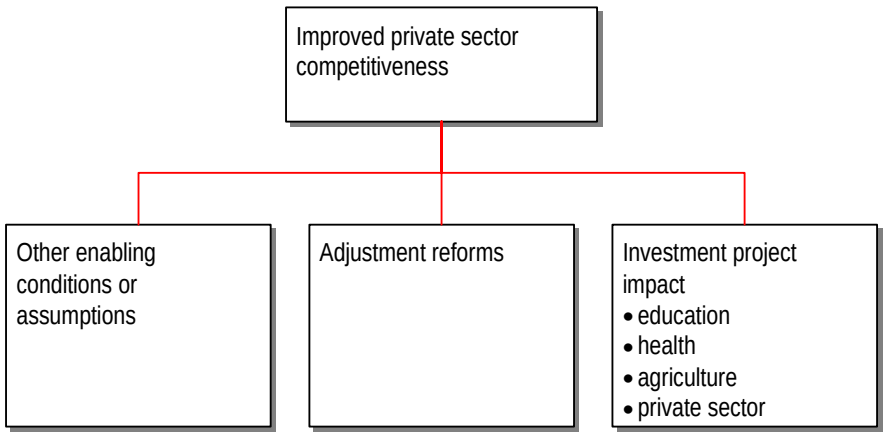
___ 24. The Components identify any actions required for managing the Monitoring & Evaluation system.

___ 25. The Outputs define the management responsibility of the project.

___ 26. When reviewing the Logframe, you can define the evaluation plan for the project.

THE STRUCTURAL ADJUSTMENT LOAN

Structural Adjustment Loans represent nearly 50% of the Bank's current portfolio. The High Impact Adjustment Loan (HIAL) is part of a complementary development strategy that can work synergistically with investment banking.



Look at the sample Logframe for an Adjustment Loan: The core logic defines the reforms as Outputs and investment operations as assumptions – (in investment projects, this is reversed). Both work together to achieve improved performance of the Private Sector. Plan the Adjustment Loan like a normal project.

Adjustment & Investment Loans

A Structural Adjustment Loan

Narrative Summary	Assumptions
PDO Private sector performance and competitiveness increased.	
Outputs: (Policy Interventions) 1 Privatization & Enterprise Reform program implemented 2. Trade Reform Program implemented and sustained. 3.Tax Reform Program implemented and operational. 4. Transport Regulatory Reform Program implemented and operational. 5. Judicial Reform Program implemented. 6. Customs Reform Program implemented and operational.	**(Investments & expenditures)** 1. Public sector programs and projects deliver improved: Education services Health services Business development services Enterprise support services Road rehabilitation & maintenance services Contractual rights protected by courts et al 2. Public expenditures to improved government services at predictable levels.

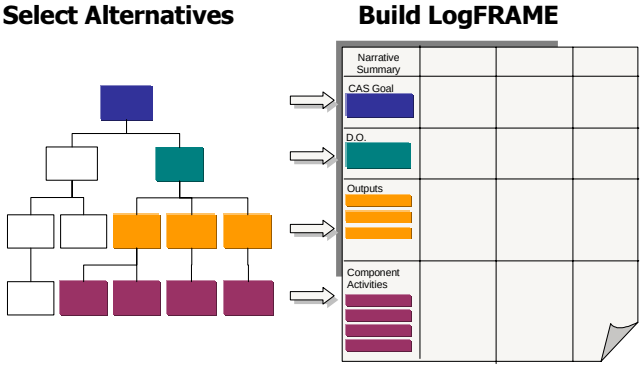
LOGFRAME TIPS

In this section some of the most useful tips in working with the Logframe are summarized. Call the Help Desk at any time for additional support.

Set Priorities

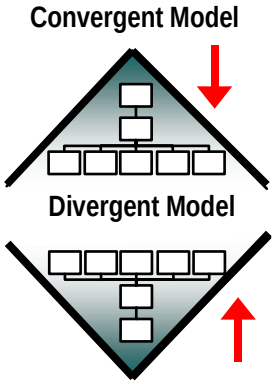
Begin with the Alternative(s) selected in the Trees. In determining these a Point-of-View was established, which should populate the first column (Narrative Summary) of the Logframe. This is the basic project description.

- *Validate project alignment with strategic objectives*
- *Refine the cause & effect logic*
- *Make the design client-centered, demand-driven*



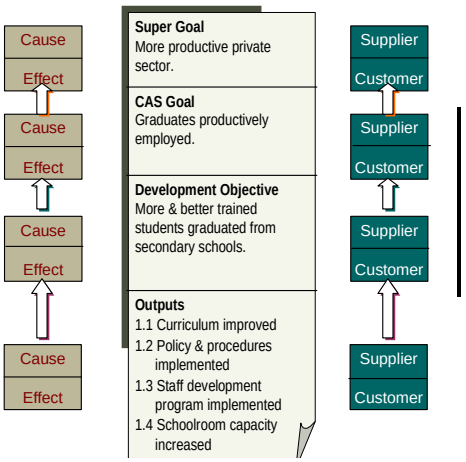
Begin at the end-Divergent versus convergent thinking

Work deductively from overall strategic goals using a convergent, results-oriented approach, rather than inductively, using an input oriented approach.



Define the Customer

Design projects to help customers serve their customer.

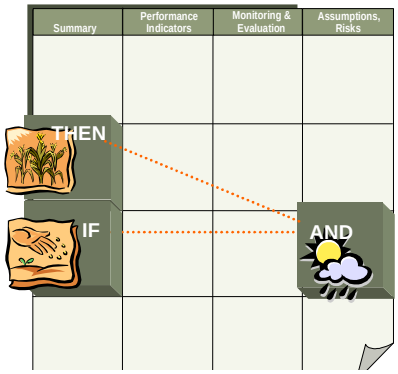


Supply side: If Outputs are produced, then what will be the impact?

Demand: In order to accomplish impact, what Outputs need to be accomplished?

Design the Cause & Effect-Necessary & Sufficient Conditions

Identify the causal structure. Be careful not to confuse the causal structure with the organizational hierarchy or a process/flow diagram.



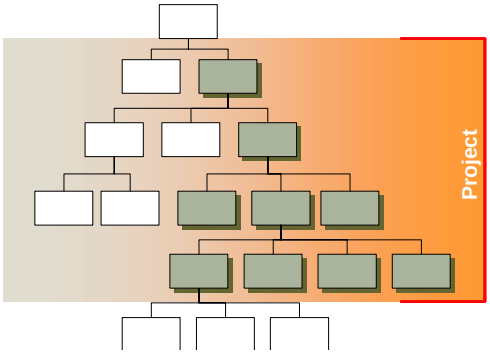
Separate Causal Thinking from Sequential Thinking

Do not confuse causal thinking (if/them; in order to; through and by) with sequential thinking [which sequences events over time (first, following, after, next, etc.)] Also, do not confuse causal thinking with correlative thinking.

Causal Thinking	Sequential Thinking
• In order to	• First
• If … then	• Following
• Through	• Before
• By	• After

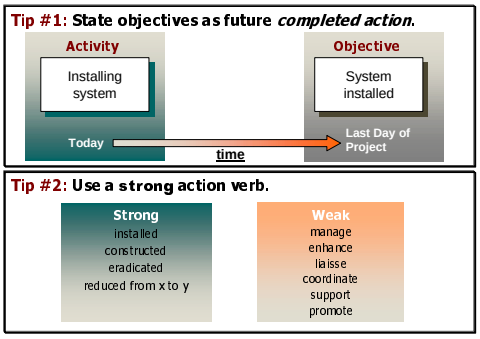
Establish Point-of-View

Point-of-View is relative. It states that a project is always from someone's Point-of-View, usually that of the implementation group. Use this definition to set the 4 level window of the matrix. The Outputs should describe this group's deliverables and the PDO should define the desired by the client.



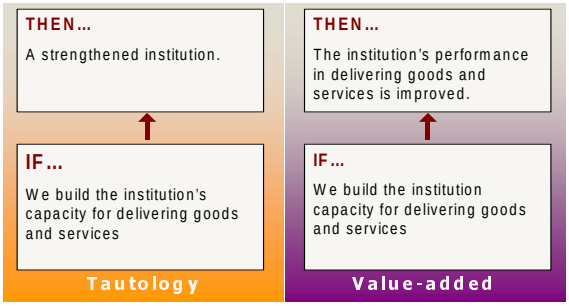
Write Objectives

Objectives are the result of activities undertaken over time and the use of resources. An objective is a desired outcome described before the time required for action. It is intended to alter the course of events. The Logframe tells a story about the causal relationship among objectives at a time in the future (usually, the last day of the project). For this reason, state objectives as completed actions in the future. And because clear objectives drive clear actions, make objectives implementable with strong action verbs.



Avoid the Tautology

Tautology weakens project design. Avoid restating Outputs as the PDO, using different words: e.g. build capacity as an Output strategy in order to have a strengthened institution as a PDO level impact.



Maintain Independence

Do not use indicators at one level to measure performance at another. Indicators describe the result. They do not cause it.

Objective	Indicator?	Better Indicator
Agriculture productivity increased.	Extension services improved.	# tons; quality of sorghum production.
Transport services improved.	Roads & bridges rehabilitated.	X days of on-time bus service
Health status improved.	Improved access to health services.	Infant mortality rates reduced from x to y
School system improved.	Institutional capacity built.	# and quality of female graduates from secondary school.

Define QQT

Measure all objectives (Goal, PDO and Outputs) in quantity (how much/many), quality (what kind of) and time (by when).

Establish a Time Frame

Design your Logframe so it explains the cause and effect logic on the last day of the project. In Adaptable Program Loans, use multiple time frames. The Goal and PDO will establish and End of Program time frame; however, the Outputs and Components Activities will use the last day of the current Program Phase. In addition, the PDO will include leading indicators from the current phase.

Target the Assumptions

Generic:
Macro-economic stability

Specific:
Fiscal deficit reduced bt 40% by end of project year 2.

Rating:
Criticality - substantial 51% - 75%
Probability - substantial 51% - 75%

Mitigation Strategy:
Develop/implement enforcement strategy for tax collection
Develop/implement communications campaign on the social costs of tax evasion.

SAMPLE LOGFRAMES

By Sector

- *Environment : Industrial and Community Pollution Management*
- *Education: Universal Primary Education – APL*
- *Education: Primary Education*
- *Health: Secondary Health Care*
- *Infrastructure : Freeport*
- *Pilot R&D Project*
- *Agriculture: Sector Reform – APL*
- *Local Government Capacity Development : Sub projects*
- *Water Supply and Sanitation : Demand Driven Sub Projects for Local Towns*

Environment : Industrial and Community Pollution Management

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions/Risk
CAS Goals			**CAS Goal to Bank Mission**
1 Environmental conditions are improved	1 % decrease in industrial pollution in 2 Soil erosion reduced by 5% in 15 project ounties by end of PY6	1 Industrial Pollution : EPA 2 Sample soil surveys in project countries	1 Sustainable resource base contributes to sustainable development in project countries
Development Objective			**D.O. to CAS Goal**
Targeted private sector urban/industry and poor communities practice anti-pollution activities	1 80% of companies receiving grants decrease their industrial pollution index by at least x 2 75% of area communities practice improved environmental management by way of sanitation services, drainage, etc.	1 Environmental agency audit of industrial compliance 2 Community environmental assessment	1 Host country governments enforce FNR policies and maintain financial commitment 2 AIS and other donors, PVOs, private sector and universities make greater financial commitment to FNR management
Outputs			**Output to D.O.**
1 The awareness of private sector and communities of the impact of their actions on the environment and the need for environmental protection is increased	1.1 85% of targeted companies and communities reached by the message	1.1 IEC reach survey based on distribution	Economic hardships do not undermine the understanding of the environmental impact of projects
	1.2 50% of the targeted companies and communities understand the importance of environmental protection and changes in practice needed	1.2 Survey of targeted communities and companies	Corporate profit motives do not circumvent pollution mitigation measures
2 The industrial/ urban pollution grant is efficiently implemented with active support from the urban companies	2.1 50% of urban grantees implement grant programs on time and on budget with quality control	2.1 Review of Grant records	The grants are sufficient to influence private sector
	2.2 80% of urban companies targeted submit grant requests	2.2 Review of Grant Applications	
3 The efficiency of the working relationship between agencies is improved and supported by legal frameworks	3.1 80% of compliance checks meet the regulatory standards 3.2 80% of spot audit infringements received fines in line with regulations	3.1 Audit of compliance records 3.2 Spot audit check on infringements and fees : Env, Affairs Office	

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions/Risk
AWARENESS 1. Develop educational campaign 2. Implement IEC on various media 3. Develop a monitoring/assessment of IEC campaign 4. Train IEC personnel in management as needed GRANT 2.1 Establish grant funding for industrial pollution 2.2 Inform industry of the opportunity for grants 2.3 Provide technical assistance to qualifying companies on application for grants 2.4 Establish approval criteria system for grant making AGENCIES 3.1 Conduct institutional assessment of the agencies and their interrelationship 3.2 Undertake training for agencies 3.3 Develop central unit for continued support to agencies 3.4 Develop and implement regulations for improved environmental safety	Awareness 25M Grant 50M Agenies 10M	Project management reports, Progress reports Financial records Procurement Records	

Education: Universal Primary Education - APL

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions & Risks
CAS Goal Reduction in poverty, increased number of self-reliant, productive members of society.	1 X% basic and Y% secondary school graduates employed at graduation & after 12 months by EOP. 2 X % Self-employment & # New Business starts by graduates per annum. 3 % secondary graduates enter post-secondary institutions by EOP.	1 Employment records against education records 2 Education statistics publications, household surveys, census records 3. ibid	CAS Goal to Bank Mission Macro-economic situation remains stable.
Program Purpose The Universal Primary education system is effective in formal and non formal education	End of program Indicators 1. 30% of 3 to 6 year old children improve their cognitive and physical abilities as a result of the ECD program 2. 100% gross primary enrollment with y% of all possible children of statutory age entering the school system by end of 10th year 3. Girls represent 50% of primary enrollment 4. Learning outcomes improve by at least 2% in French and math for Grades 2,4,6 5. % reduction in grade repetition rate	1. ECD Review 2. Education records 3. Enrollment rates 4. National Learning Statistics through achievement tests 5. National Statistics	D.O. to CAS Goal Budget allocation for education will continue to increase in line with government targets (to 50% of GNP by 2004) Policies are adhered to and major stakeholders remain committed to institutional reforms
Project Development Objective The decentralized education system framework developed under the project is effective in the test regions and ready for national implementation ***Phase One:*** *Build the capacity of decentralized educational system and pilot test in 3 regions* ***Phase Two:*** *Expand pilot to other regions and scale up* ***Phase Three:*** *National Scale Up*	**Outcome/ Impact Indicators** 1. 8% increase in budget going to primary schooling (from 36% to 44%) with a ratio of at least x/y/z/ to quality enhancement __/__/__ 2. 80% of the regions are beginning implementation of the new decentralized plans for education by the end of year three In the test regions 3. % increase in enrollment rates (new of the supply drive enrollment figures) 4. % decrease in repetition rates for test schools 5. % improvement in learning outcomes in the test area attributable to textbook distribution and assessed with the new assessment tools	1. Audit of financial allocations. 2. Regional Review of decentralization process 3. Education figures in the test regions 4. Education figures in the test regions 5. Assessment of attribution of learning outcomes and textbook use.	The demographics in the remaining regions are similar to the test regions There are no other incentives in the test regions for invalid data to skew results
Outputs: 1. Parents and communities send their children to local well-equipped schools and methods for inducing increased enrollment	Output Indicators 1.1 % of children using the access capacity within __ distance from their homes by 06/10/03 1.2 % of parents in the test regions	Audit report on: 1.1 Rehabilitated classrooms. 1.2. New classrooms constructed.	Output to D.O. Demand for child schooling is maintained and/or increased despite

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions & Risks
based on access are tested.	who see increased access to middle schools as a reason to send children to primary schools by 5/10/02 1.3 % of parents who are aware of newer latrines and facilities in the local schools and % who send children to school as a result	1.3.1 Computer labs constructed.	continued stagnation and extreme poverty in rural areas.
2. Optimal strategies for improving quality of education delivery are tested and ready for implementation	2.1 %of teachers in tests area who are willing to change to a resource center strategy 2.2 % of test areas where ECDE is effective with y% agreeing to manage the ECD program 2.3 % of in service teachers in the testing area who improve the quality of their delivery by	2.1. teacher survey 2.2 ECD report 2.3 Sample audit of classroom use	
3. National and regional administrative bodies are able to successfully manage the educational system based on real tie information from the local populations	3.1 % of school administrations following proper business processes 3.2 % of teachers who are hired on a contract basis with % satisfied with new system 3.3 % of information provide by communities which is used in the decision making process 3.4 % of communities involved in providing information to the administrative system	3.1. Sample audit of administrative procedures 3.2 Review of contracts 3.3 Survey of community participation 3.4 ibid	

Education: Primary Education Improvement

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions/Risk
CAS Goal			**CAS Goal to Bank Mission**
1 More and better trained students enroll and graduate from secondary schools	1.1 Transition rates from primary to secondary schools increases from 27% in 94/95 to 37% in 99/2000, and 45% in 2005	1.1. National Educational Independent Survey	1
	1.2 Percentage of students graduating from secondary schools increases from 45% in 94/94 to 65% in 2005	1.2. National Educational Independent Survey	
	1.3 Percentage of secondary school students achieving minimum scores in standardized examinations increased from 31% in 94/95 to 56% in 2005	1.3. National Educational Independent Survey	
	1.4 Proportion of girls enrolling in secondary schools increased from 22% in 94/95 to 45% in 2005	1.4. National Educational Independent Survey	
Project Development Objective	**Outcome Indicators**		**D.O. to CAS Goal**
More and better trained students graduate from primary schools at reduced costs with more gender equity	1.1 Retention rates in primary schools reduced from 25% in 94/95 to 18% in 2001	1.1. National Educational Independent Survey	1 Students have support from their families to enroll in secondary schools and to continue their education
	1.2 Percentage of students achieving minimum scores in standardized examinations increased from 35% in 94/95 to 52% in 2001	1.2.1 National Educational Independent Survey	2 Secondary schools have excess capacity to provide education from an increased number of enrollments
	1.3 8,000 additional students from the 10 regions with the lowest coverage enroll in primary education schools (with at least 40% being girls) by 2001	1.3. National Educational Independent Survey	
	1.4 Scholarships reduced from 1,000 in 94/95 to zero in 2001	1.4.1 National Educational Independent Survey	
	1.5 Per student primary education costs reduced by 25%, based on 94/95 costs, by 2001	1.5.1 National Educational Independent Survey	
Outputs			**Output to D.O.**
1 Adequate, quality classrooms are used by students in the target groups	1.1 The student classroom ratio is : at least 20/1 in all areas.	1.1.1 Quality assessment of construction of classrooms	1 Teachers support and adopt new and improved curriculum, pedagogic materials, and teaching methods
	1.2 The walking distance to school is no more than x minutes in all areas	1.2.1 Audit of walking distance from villages and placement of schools	2 Transportation system allows children to get to schools in less than one hour
	1.3 At least 90% capacity levels are reached in all schools built	1.3. Review of school use	3 Children are well fed when they arrive at school

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions/Risk
	1.4 60% of the new additional dormitory rooms are allocated to girls by 1999	1.4. Review of allocation to girls	4 School directors and advisors implement skills developed program
2 New and improved curriculum and pedagogic materials are used in the classrooms	2.1 85% of schools receiving new textbooks and materials are in use in the classroom within 2 months after delivery	2.1 Sampling of schools and use of textbooks	5 Children have support and incentives from their families to enroll in primary schools
	2.2 The newly developed textbooks meet professional criteria for new and pedagogic materials	2.2 Evaluation of quality of textbooks and materials	
3 New teaching methods are used in the classroom	3.1 At least 80% of teachers attending the teacher's training use the new methods in their classroom work within x months of graduation from courses	3.1. Classroom evaluation audit	
	3.2 3,500 teachers, 220 directors, and 200 demagogic advisors pass level II evaluation test	3.2. Training documentation and records	
4 The administrative ability to school directors and management is improved	4.1 95% of attendees of the training pass level II examinations upon course completion	4.1. Training Level II Evaluation documentation	
	4.2 At least 75% of sample of attendees pass level IV evaluations 3 months after completion of course work.	4.2. Training Level IV Evaluation	
Component Activities	**Inputs**		**Activity to Component**
CLASSROOM RENOVATIONS	**CLASSROOM RENOVATIONS $89M**	Project Management Documents	Weather does not hinder building
1.1 Determine school needs for construction and rehabilitation	**CURRICULUM REVISIONS $10M**	Procurement Reports	
1.2 Construct schools	**TEACHER TRAINING $15M**	Milestone Reports	Political stability
1.3 Equip schools	ADMINISTRATION $5M	Financial Reports	
			Incentive systems for teachers reflect new desired use of new methods
CURRICULUM REVISIONS			
2.1 Revise general primary education curriculum to incorporate new skills and requirements from secondary schools			
2.2 Develop Pedagogic material to support the new curriculum			
2.3 Distribute new curriculum			

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions/Risk
implemented and pedagogic materials to 30% of the schools in 97, 60% in 98, and 100% in 99			
2.4 Provide 521,000 textbooks students on a rental basis			
TEACHER TRAINING			
3.1 Develop new teacher training methods and courses			
3.2 Train 3500 teachers, 220 directors and 200 demagogic advisors in new teaching skills			
3.3 Provide relevant materials needed fro teachers continued application of skills in the classroom			
ADMINISTRATION			
4.1 Train 220 school directors in management and planning techniques			
4.2 Train 150 central and 250 regional staff from public and private schools in management planning techniques			

Health: Secondary Health Care

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions/Risk
CAS Goals			**CAS Goal to Bank Mission**
1 Improved health status of rural population	1. Reduced incidence of endemic diseases by 5% annually for '93 to '99	1.1.1 World Health Organization Reports	1 Improved health increases workers productivity
	2 Mortality rate reduced to 120/1000 by 2000	1.2.1 World Health Organization Reports	2 Other social infrastructure projects achieve their CAS Goals
	3 Morbidity rate reduced to 100/1000 by 2000	1.3.1 World Health Organization Reports	
Project Development Objective			**D.O. to CAS Goal**
The rural population uses improved secondary health care	1.1 Number of patients served by local hospitals increased by 20%:	1.1.1 Independent National Study : MOH	1 No major outbreaks of diseases
	1.2 65% of the children in service areas are inoculated	1.2.1 Independent National Study : MOH	2 Current level of food security is maintained
	1.3 70% of population in need of services use these services		
Outputs			**Output to D.O.**
1 The quality of the health care infrastructure is improved	1.1 % of secondary health care centers with adequate qualified staff (doctors, nurses) to meet all shift needs	1.1.1 MOH check on health care centers	1 Served population can pay minimum services' fees
	1.2 % of health care centers with laboratories and pharmacies to international standards	1.2.1 Review of labs and pharmacies in health care centers	
2 The needs of the community in the area of health care services are reflected in the provision of services	2.1 % of health care needs met by skilled doctors, centers, and /or availability of relevant drugs	3.1.1 Review of needs against services offered	
	2.2 % of community involved in the process of determining the needs of the community	3.1.2 Review of participation in needs definition	
3 The use of new skills in provision of health care is increased	4.1 % of health care workers receiving training who apply the skills on the job	4.1.1 Sampling of the system	
	% of the population using the centers who are satisfied with the quality of the care provided	4.1.2 Survey of users -- sampling	
5 The project is efficiently implemented	5.1 Supervision and financial requirements are met by the PMU in 100% of its duties	5.1.1 Supervision reports	

	5.2 90% of implementation milestones are achieved 5.3 80% of performance indicators are tracked and provided to decision makers	5.2.1 Supervision reports 5.2.2 Supervision reports	
Component Activities **INFRASTRUCTURE** **1.1 Determine the current state of the health care facilities** **1.2 Develop a plan to improve facilities along the lines of beds, pharmacy, labs, staff** **1.3 Update labs** **1.4 Build additional bedding and/.or centers** **COMMUNITY NEEDS** **1.1 Develop a system for community participation** **1.2 Conduct a needs assessment in each region** **1.3 Integrate the community needs into the infrastructure plans** **SERVICE PROVISION** **1.1 Determine the level of skills needed for effective health care and a training plan** **1.2 Implement the training plan for nurses, doctors, and support staff** **1.3 Develop administrative procedures to determine the quality of care** **PROJECT MANAGEMENT** **4.1 Determine the skills of the PMU and identify weaknesses** **4.2 Provide training or support to fill knowledge gaps** **4.3 Provide necessary tools for staff in the areas of financial management, procurement, project management, and M&E**	INFRASTRUCTURE $$$ COMMUNITY NEEDS $$$ SERVICE PROV. $$$$ PROJECT MNG $$$	Project Records Project Management Plans	

Infrastructure: Freeport Rehabilitation and Investment

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions/Risk
Sector-related CAS Goal: Economic Growth	Sector Indicators: National Freeport Contribution FX revenues : National employment. Incremental export earnings	Sector / Country Reports: MOF Reports	(from Goal to Bank Mission)
Project Development Obj: Private investors continue to remain and invest in the Freeport.	Outcome Indicators: 1. Freeport secures the following new businesses (which meet the investor criteria) Operating Committed #Jobs Services Manufacturing Tourism 2. Freeport maintains the following businesses Operating Committed #Jobs Services Manufacturing Tourism 123 201 11,821 3 . Y% of the new and existing firms rate the Freeport satisfactory or higher on a service scorecard 4. Air Emissions of x and y are maintained Water Quality (BOD, COD, etc.), Forestry – Ground Cover	Project Reports: 1. Freeport records of new and intended investors and the analysis of investor criteria including env. 2. Business audit and employee records 3. Survey results for a service scorecard 4. Bi-annual Env. Audit	(from Objective to Goal) Economic Development in other parts of the Philippines continues
Output for each component: 1. Integrated, reliable power distribution in Freeport is efficiently provided with sufficient maintenance support in place to meet growing demands 2. Treated water is efficiently and consistently provided to consumers in freeport through the public private partnership	Output Indicators: 1.1 Reduce usage and live losses from 24% to 12% by 2000 1.2 Increase in billing for power with a billing efficiency of 85% by 2000 and 95% by 2004. 1.3 Reduce administrative consumption for electricity from 40% to 10% by 2000 to 4% by 2005 1.4 Frequency of outages is decreased to x from a level of y with a maximum power outage duration of ___ hours by mm,dd,yy, 2.1 Chlorinated water is provided to the population (base demand of 66.4 Mld) with the following gradations : U $12M water sales by 2000, $value of 204.1Mld by 2005 and US$ value of 230.2 by 2010, with FRR of 14.8% 2.2 Operational efficiency of the water company as measured unaccounted for water of ___% by mm,dd,yy Time between water leakage and repair reduced from x to y by mm,dd,yy with an activity cost not to exceed $__ per call (or % of revenue per repair)	Project Reports: 1.1 Audit of Merged Power Company Records 1.2 ibid 1.3 ibid 1.4 ibid 2.1 Audit of Water Company Records 2.2 Audit of Water Company Records	(from Outputs to Objective) Promotions to draw investors are successful The Government passes and supports necessary regulations that are investor "friendly" Confidence in Philippine economic and political stability remains strong Industries comply with environmental regulations Freeport remains competitive against other freeports

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions/Risk
3. A safe and operationally efficient physical access to the secured area for industrial and commercial development is in place and maintained	3.1 Travel time on major roads decreases from x to y km/hour in heavy traffic times by mm,dd,yy 3.2 The accident rate at major intersections decreases from x to y and on major thoroughfares from z to zz by mm,dd,yy 3.3 Road repairs are completed within x days of identification with minimal disruption in traffic patterns	3.1 Roads Safety and Efficiency Survey 3.2 Accident Reports : police 3.3 Maintenance Schedule Reports	
4. The necessary supporting structure and skills to efficiently administer the growth in freeport are successfully transferred to Freeport	4.1 The time for custom clearance is reduced from x days to y days by mm,dd,yy 4.2 X% of infrastructure services are provided by the private sector by mm,dd,yy increasing y% a year to a final level of z% by mm,dd,yy 4.3 Freeport rate 95 of above on all elements of its balanced scorecard [ii] by mm,dd,yy	4.1 Custom Reports 4.2 Infrastructure Reports 4.3 Freeport operational reports 5.1 Assessment records	
5. The effect on the environment of the Freeport is efficiently monitored, regulated and managed by the Environmental Center and the interests of the native Population are protected	5.1 Investor environmental assessments covering y% of investors are conducted within _ time period with x% of companies complying with environmental standards beginning mm,dd,yy, 5.2 Information on changes in the ground water are feedback into the water management with periodic checks x times per month beginning xx,xx,xx 5.3 The communities within the native Populations receive positive benefits from the freeport beginning mm,dd,yy	5.2 Periodic Reports 5.3 Social Scientist Surveys	
COMPONENTS	INPUTS	MOV	Assumptions
The major areas of work for the 5 components would be added to this area. This would include a list of appx. 2-10 main activity groups.	The inputs are the financial amounts allocated to each component. Not category of expenditure.	Project reports	

Pilot Project: R&D Portfolio Management

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Important Assumptions
CAS Goals			**CAS Goal to Bank Mission**
The productivity of the private sector on an international competitiveness scale is improved	Technological value added to products, services and processes increased by 15% by PY6	Independent impact assessment study	1 National transportation infrastructure is modernized to become competitive 2 Marketing campaign is effective 3 National companies are willing to collaborate among themselves
Development Objective			**D.O. to CAS Goal**
Private enterprises adapt foreign technologies for TQM and contribute to the R&D efforts	1. At least 5 of commercially feasible prototypes and production scale processes are adapted by 10% of more of the area private enterprises 2. At least 80 new companies in targeted industries implement TQM processes per year beginning in PY2	1 R&D documentation 1 R&D tests and results	1 Financial and economic reforms continue 2 Market analysis of products and services design capability available internally 3 Constitutional reforms continue
Outputs			**Output to D.O.**
1 The ability of private enterprise to manage for quality is improved	1.1 At least 50 new companies in targeted areas start ISO 9000 application process per year by PY1	1.1 Application documentation	1 Financial and economic incentives are sufficient to motivate institutions and individuals
	1.2 At least 50% of the companies applying for ISO 9000 certification are certified per year beginning in PY2	1.2 Certification documentation	2 Support to applied R&D is maintained
	1.3 At least 80% of mid and top level managers from targeted industrial sectors attending training pass level II TQM, strategic planning, and project management evaluations per year beginning in PY2	1.3 Evaluation records	3 Private companies are willing to actively participate and collaborate with quality and management improvement programs Legal, constitutional, and regulatory reforms continue as planned to create an enabling environment
2 Adequate incentives are in place to enable applied R&D development within the industries targeted is provided	2.1 At least 5 companies contribute to significant research and processes	2.1 Patent applications, journal publications and industrial publications	4 Graduates formed by the project are employed by academic institutions and continue their studies or engage in R&D Component Activities, or are employed by private R&D centers
3 The quality of human resources in the area of R&D in targeted industries is improved on a	3.1 At least 1 new research leader formed in targeted areas per year beginning in PY2	3.1 Scholarships, fellowship applications, graduation records	5 New private R&D centers are created in response to private sector demand

	Narrative Summary		Performance Indicators		Monitoring & Evaluation	Important Assumptions
	demand	3.2	At least 60 new Ph.D.'s formed in targeted areas per year by PY2	3.2	Scholarships, fellowship applications, graduation records	
		3.3	At least 20 new researchers formed in targeted areas per year beginning in PY2	3.3	Scholarships, fellowship applications, graduation records	
4	R&D outcomes are successfully produced through partnership programs	4.1	At least 4 nation-wide mechanisms for bringing together public, private sector, scientific community and R&D centers to develop collaborative efforts by PY2	4.1	Journals, patents, official publications, grants and loans processed	
5	Quality R&D support services are provided to enterprises in the geographic area in an efficient manner	5.1	At least 90% of private enterprise users surveyed are satisfied with the quality of the responsiveness and services of the support centers	5.1	Survey of centers	
		5.2	At least 20% of targeted companies in the area of new rehabilitated centers increase their use of the support services			

APL : Agricultural Sector Reform

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions
CAS Goal: Revitalization of the rural economy to increase rural incomes, reduce poverty and reinforce national stability	1. Avergae household incomes are x%higher than the baseline by 2020 2. The share of the population nunder the poverty line decrease by x% by 2020	1. Rural household survey or national statistics 2. National statistics	**CAS Goal to Bank Mission**
Program Purpose The rural poor effectively employ the resources on which they depend for livelihood in raising productivity, primarily land and labor *PHASE I: 2001-2004* *Create the institutional, technical, and infrastructure maintenance capacities needed to support the generation and adoption of efficient cropping and post-harvest technologies and test their effectiveness.* *PHASE II: 2005-2009* *Accelerate the intensification and commercialization of agricultural production.* *PHASE III: 2010-2014* *Promote the diversification of economic activities in rural areas and expand the productive employment of available resources.*	En d of program indicators 1) Average crop yields per hectare in the project areas z % higher than the baseline 2) Average returns per labor unit in the project areas are z % higher than the baseline 3 Average crop yields on farmed marshland / hill-sides are x%, y%, and z% higher than the baseline by the end of phase I, II, and III, respectively; 4 The unit costs per hectare of export crops in the project areas are x%, y%, and z% lower than the baseline by the end of phase I, II, and III, respectively;	1. Survey of project area 2. Ibid 3. Ibid 4. ibid	Production and effective utilization of resources continue The political climate remains stable Weather conditions remain favorable for production
Project Development Objective Rural poor in the pilot areas use modern inputs, including marshlands, for diversified production and employment, supported by sustainable services	*Outcome / Impact Indicators:* 1) The quantities of modern inputs used per capita and per hectare in the project areas are x% higher than the baseline by 2003 2) The quantities and shares of marketed crop output per household in the project areas are x% higher than the baseline by 2003 3) The total area of rehabilitated farmed marshlands and hill-sides have reached a and b ha, respectively by 2003	1. MOA survey of pilot areas 2. Ibid 3. ibdi	The subsequent phases achieve their objectives The capacity developed in this phase is maintained throughout the other phases

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions
Project Outputs 1. Farmer's groups' and other NGOs/firms' in the pilot areas ability to manage marshlands has improved (in the pilot area)	Output Indicators 1.1 At least x farmer groups in the pilot area demonstrate sufficient skills for the management of marshland crops; 1.2 % of sites in pilot area with agreed cropping patterns, irrigation and drainage schedules, and maintenance programs, and % application of these patterns, schedules, and programs. 1.3 At least x national firms/NGOs submit grant applications for technical studies, works and on-farm development activities	1.1 Sample farmer assessment of marshland skills 1.2 Assessment of pilot region 1.3 NGO organizational records in MOA	Market Prices are an incentive to produce. Climatic conditions remain favorable The prevailing legal and regulatory framework is conducive to increased farmer investment in land and water infrastructure
2. Effective commercial and technical support to export crop farmers in the pilot areas is provided by CTSEs	2.1 % of CTSEs providing quality support to the farmer owners **2.2 % of owner farmers who are satisfied with the quality of the support provided by the CTSEs**	2.1 Sample assessment of the quality of support to farmers 2.2 2.2 Farmer survey of CTSE	There are sufficient human resources and technical capacity to develop and adequately maintain the rehabilitated land and water infrastructure
3. Adequate knowledge and skills for improved farming practices are disseminated to farmers through research and extension services	3.1 85% of target farmers reached by PASDO services 3.2 40% of farmer's association members who demonstrate adequate retention of extension services "learning objectives" 3.3 50% of farmers reached by PASDO are satisfied with the services provided	3.1 PASDO records 3.2 Evaluation scores of extension workers 3.3 Farmer survey	The on-going pilot project on agr. And rural market development will provide workable solutions with respect ft the promotion of private sector based systems of advisory services for small holder farrmes
4. The ability of local communities to maintain transport and post harvest equipment and infrastructure is improved	4.4 At least x local communities and y private operators meet quality standards on management of local transport (time to repair, # of unnecessary maintenance etc.) 4.5 Total unit of intermediary means of transportation developed by communities increases to x	4.1 Sample of community and private operators maintenance 4.2 Records of infrastructure	Low cost technologies exist on- shelf or can be introduced at reasonable costs to promote off farm productive activities The regulatory environment for domestic trading will remain adequate

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions
Activities Rehabilitation of farmed marshland and hill side areas 1.1 Build small scale drainage and irrigation 1.2 Conduct soil and natural resources conservation R&D and infrastructure 1.3 Provide advisory services on cropping and water management technologies 1.4 Train farmer groups and other target operators in construction, management, and maintenance of land infrastructure 1.5 Assist produced organizatiosn and community groups in development Promotion of export agricultural services 2.1 Provide advisory services on production and post harvest technologies to farmers and operations 2.2 Conduce post harvest R&D 2.3 Develop and implement export crop farmer organization capacity building 2.4 Establish farmer owned commercial support entities Support to Agr. Services Delivery System 3.1 Conduct adaptive research on cropping, conservation and post harvest techniques 3.2 Train farmer organizations on participatory research and extension services delivery 3.3 Provide advise to operators willing to invest in services delivery	**Inputs** Marshland Rehab. $35M Export Promotion : $10M Support Services/ Delivery $5M Small Scale Infrastructure $7M	Project Management Reports Financial Reports Procurement Reports	**Activity to Output** **The level of unit cost of production is the most important determinant of export competitiveness** **Other donors provide technical and institutional support to agricultural exporters** **The regulatory framework of marketing and the movement of goods across local markets remains adequate** **The relationship between farmers and local administration with respect to access and use of marshland is transparent and builds trust around project activities**

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions
Small scale rural infrastructure development 4.1 Implement conservation and transport infrastructure development and maintenance activities 4.2 Provide assistance to operations 4.3 Acquire IMT 4.4 Construct IMT			

Local Government Capacity Building through Sub Projects

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions
Sector-related CAS Goal: Strengthen public policy and implementation capacity	**Sector Indicators:** % of population in transitioning TOWNs whose incomes increases %	**Sector / Country Reports:** **National Survey**	**(from Goal to Bank Mission)**
Project Development Obj: Resource poor TOWNs effectively undertake economic development in a self reliant manner	**Outcome Indicators:** 1. x% of participating TOWNs rate their ability to better plan and implement investment programs (control systems, planning, supervision) as satisfactory or better, attributing this to project by xx,xx,xx 2. % of participating TOWNs increase their own revenue share of all current municipal revenues by at least x% by xx,xx,xx 3. % of participating TOWN sub-projects achieve their economic development[9] outcome and maintain the impact by xx,xx,xx 4. % of participating income class 1-3 TOWNs' satisfactorily achieve the social and environmental objectives of their sub-projects by xx,xx,xx	**Project Reports:** 1. Survey of TOWNs 2. National Monitoring System 3. Ibid 4. Ibid	**(from Objective to Goal)** TOWNs unable to obtain MDF support are able to get this support from other donors (USAID, ADB)
Output for each component: 1. TOWNs in 3rd and 6th income classes successfully implement local sub-projects) in an environmentally sound manner 2. The service delivery and economic development management of	**Output Indicators:** 1.1 % of TOWNs successfully implement their sub-projects with up-front indication of the economic or social benefit of the sub-project and a system in place to measure the outcome of the project upon completion by xx,xx,xx 1.2 % of category A and B sub-projects which meet environmental impact requirements 1.3 % of sub projects with sufficient O&M plans and budgetary allocations to implement them by xx,xx,xx 2.1 % of TOWN receiving training which submit sub-projects which are satisfactorily prepared by xx,xx,xx 2.2 % of TOWN participants receiving a post training review grade of satisfactory by	**Project Reports:** 1.1. MDFO records 1.2 . Env Audits Local consul 1.3 pre and post reports to MDFO 2.1 Review of subproject proposals 2.2 Training Records 3.1 Tax records	**(from Outputs to Objective)** The officials who were part of the project intervention retain their positions or influences

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions
TOWNs is improved 3. The governance, transparency, and fiscal performance of TOWNs is improved 4. Long-term credit and grants for economic and social development projects is efficiently provided to non-creditworthy TOWNs by MDF	3.1 % increase in tax revenues and billing of participating TOWNs in RPTA 3.2 % of TOWNs with proper financial disclosure and public access by EOP 3.3 % of TOWNs monitored by national government 4.1 Average sub-project processing time within MDFO from appraisal to disbursement is ___ by xx,xx,xx 4.2 Loan recovery of MDFO is at least x% by xx,xx,xx 4.3 x% of TOWNs are aware of the benefits of LOGOFIND and access the funds beginning xx,xx,xx	Audit 3.3 Audit of national audits 3.1 Records 3.2 Financial Records Survey	
Components **1 Subprojects** *2* ***TOWN Training and Capacity Building*** TOWN Resource Mobilization and Monitoring : MDF Reorganization and Strengthening ;	**Subprojects : $95.7** **TOWN Training and Capacity Building : $8.3** **TOWN Resource Mobilization and Monitoring : $16.5** **MDF Reorganization and Strengthening ; $12.2**	**Project Reports** **Financial Reports and Audits** **Procurement Reports**	**The government remains committed to strengthening and reorienting the MDF** **The TOWN financing policy framework is implemented** **Demand if adequate for TOWN projects and the TOWNs are able to quickly prepare and implement projects** **The turnover of elected official and staff in TOWNS is low** **The professional capacity of the project officer, set up initially in MOF is postive.**

Water Supply and Sanitation : Demand Driven Sub Projects for Local Towns

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions
Living standards in Philippine towns and cities improved.	1. 90% of urban population has access to safe drinking water. 3. In the 20 largest cities outside Manila 80% of wastewater is collected and treated.	1. World Development Report and other internationally compiled documents on basic urban service provisioning. 3. Benchmark performance	1. Government adherence to its strategy, as stated in the NEDA Board Resolutions, remains committed
Program Purpose:	**End-of-Program Indicators:**	**Program reports:**	**(from Purpose to Goal)**
Customers in about 200 TOWNs use safe and reliable water and sanitation services, which are managed on commercial principles and are environmentally sustainable *Phase I (APL1): Proto-typing and testing a demand-based framework, that provides participating TOWNs with sustained water and sanitation services, and provides incentives for private sector participation* . *Phase II (APL2): Based on the lessons learned from APL1, adjusting and modifying the project design, and applying it to about 100 TOWNs in order to create a sufficiently large market to attract a PSP-led water operators industry. Phase III* *(APL3): APL2 generates sufficient private sector operator interest to attract private financing of water supply infrastructure. This would enable a further scaling up in TOWN coverage, with the role of DBP changing from a retailer to a wholesaler of financing to private sector banks interested in water supply and sanitation infrastructure investments.*	1. % of consumers in the municipalities satisfied with: - water quality - wastewater collection - wastewater disposal 2. Unit price charged by informal water vendors in participating towns not more than 10% higher than prices charged by the water utilities 3. Sustainability: Private sector involvement evident in 50% by lease/concession contracts.	1. Sample consumer survey 2. Survey 3. Review of contracts	1. Lessons learned from the APL process generate support in the national government, and among other major donors.
Project Development Objective:	**Outcome / Impact Indicators:**	**Project reports:**	**(from Objective to Purpose)**
Consumers in approximately 100 participating towns are satisfied with and use clean, sustainable water supply and sanitation services	1. % of consumers who use the water provided by the towns and pay associated fees 2. At least 50% of households without sanitation (in participating towns) improve sanitation facilities. 3. Average of 80% of consumers satisfied with service performance in participating TOWNs 4. Conflicts between customers, town governments and Operators are resolved without resort to contract	1. Household survey in the participating towns 2. Consumer surveys and public performance audits 3. ibid	1. Successor TOWN administrations will remain committed to maintaining agreements with regard to tariffs and honoring long-term contracts with the private sector for operations and maintenance

Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions
	cancellations in at least 70% of PSP contracts.		
Output from each component:	**Output Indicators:**	**Project reports:**	**(from Outputs to Objective)**
1. Quality water supply is provided to participating towns by operators(through management contracts or lease)	1. At least 40 additional towns have lease and management contracts 2. At least 16 hours of water per day available for APL1 and APL2 towns 3. 50% of the participating TOWNs successfully outsource operations and maintenance activities to private operators through lease/concession contracts. 4. 4. At least 60% of households in a community connected to the water supply system	1. Review of lease and management contracts 2. Audit of service to towns 3. Review of contracts and outsourcing 4. Review of barangay connections	1. Newly elected TOWN administrations will remain committed to agreements between the project and communities;
2. 2. The DBP is able to effectively process projects	1. DBP PMO unit processes loans/grants in x days 2. NDF disbursements commence	1. processing records 2. disbursement records	2. IRA allocations to TOWNs will continue 3. DILG-PMO commitment to play facilitative role remains
3. Minimum negative impacts from the increase in wastewater are mitigated through on-site sanitation and micro-drainage system	1. x% of negative environmental impacts due to drainage are managed	1. Environmental audit sampling of completed projects x months after up and running	
Project Components / Sub-components:	Inputs: (budget for each component)	Project reports:	(from Components to Outputs)
(Phase I) 1. Operator Support and Awareness 2. DBP Loan Mechanism 3. Sanitation and Community Awareness	Operator Support $10M DBP Loan $85M Sanitation $15M	DBP-PMO and DILG through: ·Semi-annual progress reports ·Supervision mission reports ·Project Implementation Plan	1. DBP-PMO is established at by Board presentation 2. DBP-PMO and DILG work effectively in preparing second batch for implementation in 1999 3. Co-financing of technical assistance is available on time