Developing A Project Logic:

A Guide for Project Design

August 2020

Project logic provides the basis for planning and implementing, monitoring, and evaluating projects.

Our vision: A resilient Pacific environment sustaining our livelihoods and natural heritage in harmony with our cultures.

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Contents

What do I do today to achieve this vision ?

Vision of what I want

Future

Present

1. Begin with the end in mind
>2. Move backwards from the vision to the present
3. Move step by step towards the vision

Introduction

For PacWastePlus it is expected that all teams designing activities will have developed some form of project logic in participation with their implementing partners. This will demonstrate the logic of your collaborative thinking and design, and clearly articulate the changes to which you hope to contribute.

Project logic provides the basis for planning and implementing monitoring and evaluation at project level.

Project logic is defined as a conceptual framework of how a program or project is understood, or intended, to contribute to its specified outcomes. It focuses on outcomes rather than process. It demonstrates the causal links between inputs, activities, outputs, and outcomes. Such models are usually shown diagrammatically but can be reported in narrative form.

Project logic can be developed prospectively for planning new programs and activities, or retrospectively for existing programs. Project logic can be used in various ways, such as to guide an evaluation; to provide staff and other stakeholders with a motivating vision; or to structure a performance story to funders and senior decision makers.

Alternative and similar terms: Logic model, Outcomes map, Theory of change

So, what is Project Logic in practice?

A complete project logic comprises:
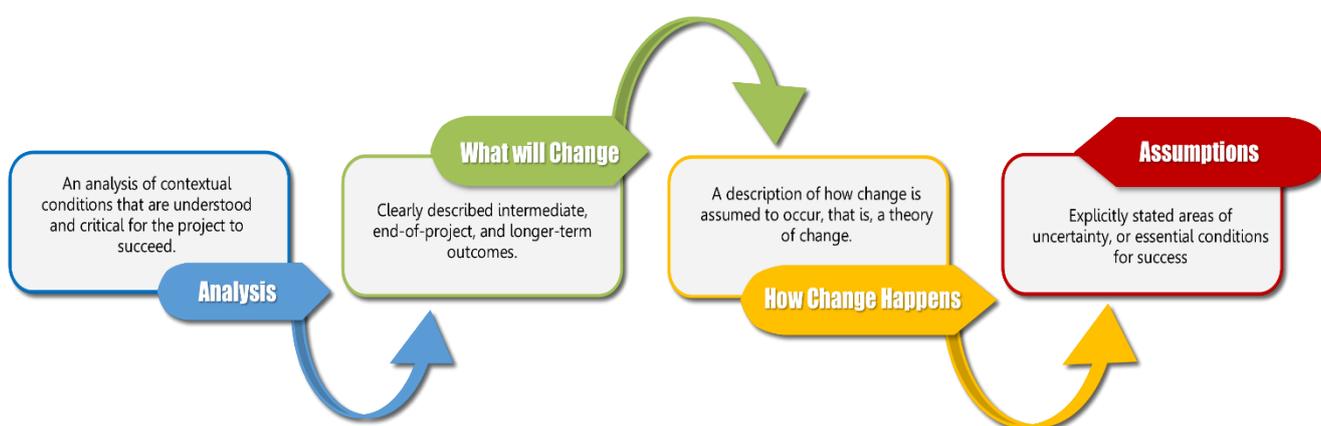
First, some definitions of terms used in a project logic, or an **'outcomes hierarchy'**, then an example is provided:

Project Accountability

Contributes to the Project Outcome

These elements fit together to form an **outcome hierarchy**, an essential component of a project logic. The most typical convention for an outcome hierarchy is that the longer-term outcomes are at the top of the hierarchy, with the activities near the bottom.

End of Project Outcomes

The outcomes, or vital changes in conditions, or systems, or practices, expected to be achieved in the life of the project.

Intermediate Outcomes

The '*steps along the way*' to achievement of end-of-project and longer-term outcomes, can include:

- Improvements in the way institutions, organisations, businesses and community systems function
- Changes in policy or governance
- Changes in individuals and groups behaviours and practices
- Changes in access to, and use of, knowledge and information
- Increased motivation; increase in confidence, improvement in attitudes
- Increases in relevant skills and knowledge

Outputs

Specific achievements or deliverable resulting from an activity

Activities

The actual significant tasks or activities undertaken to implement a project

Inputs

Human resources – general and specific, Funds, Materials, Knowledge

Project is mostly accountable or has some significant influence

Foundation (Getting Ready)

Can include design of relevant projects, conduct of research, establishment of agreements or contracts, securing of funding

Foundation

Sometimes there are other critical foundation steps to consider that could shape outputs and activities. Rigorous assessments capture all these levels and recognize their nested relationship, which helps assessments to stakeholder needs and could positively contribute towards producing desired outcomes.

An example 'Outcomes Hierarchy' for a PacWastePlus Project – Management of E-waste

Assumptions would need to be developed additionally.

Longer term outcome

Social, health and environmental benefits for Pacific ACP states are improved arising from stronger regional economic integration and the sustainable management of natural resources and the environment.

Waste is managed safely and sustainably, with due regard for the conservation of biodiversity, reduction of marine litter, health and wellbeing of the women, men, girls and boys of Pacific island communities, and climate change mitigation and adaptation requirements.

Project Accountability

End of project outcome (s)

Businesses and women and men are using the e-waste management system

The highest % possible of e-waste components are being repaired, re-used, re-purposed

E-waste is an economic opportunity instead of a problem

Intermediate outcomes

E-waste importers and users (citizens) know how to dispose of products at the end of life

Legislation activated

All other e-waste is being disposed of 'safely'

MoU for e-waste facility commenced between Ministry and business

E-waste management system established and operating

Women facility workers have improved livelihoods

Outputs

MoU for e-waste import / export enacted with Customs Authority

Legislation

E-waste dismantling facility constructed

Women have increased skills and knowledge for operating the E-waste facility

Activities

E-waste management awareness campaign conducted

Ministry drafts e-waste regulation in support of National Waste Management Act 2010

Scope and Design for e-waste dismantling facility prepared and approved

Training of trainers and workers for e-waste facility operators completed

Inputs

Legislative drafting consultant

Waste management system designer, architect and engineer

Curriculum developer and adult learning practitioner

Foundation – Getting ready

Partnership with GEF Islands Programme established

Feasibility study for container deposit scheme completed

Project resources secured and project governance committee in place

Building Project Logic in Participation

This note describes a process for developing project logic in participation with your colleagues. It is always better to build project logic in a group with a participatory process. More and informed perspectives make a stronger logic. You could build a 'straw man' (draft) project logic with your core team and then test it with your partners and stakeholders. Building project logic is a **dynamic thinking process** best done over several sessions when minds are alert and focused, with good breaks between sessions.

Principles for Project Logic

The following principles are useful to consider:

- A clear understanding and agreement are required among participants about what needs to change, and how the project can best contribute to that change, in the context of the system in which you will be working.
- Discussion of what is working, and people's visions and aspirations, are more useful than statements of problems.
- Explicit immediate and intermediate outcomes pave the way for then designing project strategies and activities.

A project logic is most complete when:
- Accompanied, or preceded, by an analysis of contextual conditions that are understood and critical for the project to succeed.
- Areas of uncertainty, or essential conditions for success, are explicitly stated (Assumptions).
- Intermediate, end-of-project, and longer-term outcomes are clearly described. (**What** will change) (See Box 1)
- How change is assumed to occur is described, that is your theory of change. (**How** change happens)

Session 1: Defining the Scope

Scoping the boundaries for the project logic is an important discussion to have at the start of the process either before, or at the commencement of the project logic workshop. Endeavour to answer the following questions:

1. *What is the investment timeframe and what is the amount of funding available for the investment/project?*
2. *What is the overall outcome to which you the project will contribute? Then, what is achievable in the life of the project?*
3. *What needs to change, and which changes are most urgent? What is the best sequence?*
4. *What do we know that works to achieve the changes required? (Why does it work and for whom?) What else could we try? What do we know doesn't work from previous experiences? (Are we operating in an environment that could allow for testing innovative approaches?)*
5. *Are there any rules or regulations that will need to be considered in designing the project?*
6. *Who will use the project logic and how will it be used?*
7. *Is there potential for partnerships? What other resources are available? Who else could/ should be included in the design process?*

Developing A Project Logic: A Guide for Project Design
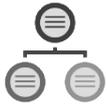
Session 2: Develop an Outcomes Hierarchy

Project long term outcomes usually involve a wide range of activities conducted in complex social, cultural, political, economic, technological, and legal circumstances. Investing time in developing a robust project logic will help you be realistic about what you can achieve in the funding period of your project.

Apply specific timeframes to each level of the 'outcomes hierarchy'. End-of-project outcomes are those you will need to report on during, and maybe after, the project. You will be most accountable for end-of-project outcomes. Think positively about how the project can contribute to achieving the changes desired that are under consideration. There will be ongoing opportunities to challenge, and re-frame, the project logic.

As a group, you will be writing a series of outcome statements – statements describing future desired conditions, while you then take a 'looking backwards' view on what changes will be needed along the way.

Resources: Ideally, you will map the project logic out on a wall using:
- colored paper (colour coded to the outcome levels),
- good quality thick markers for clear, big writing, that you can read from a distance, and blu-tack, for sticking the paper on the wall.

Below is a guide to writing outcome statements. Read this before you start writing outcome statements, which need to be expressed as **a statement of desired future condition, or state, of a subject or object, system, or policy**.

Box 1. Guide for writing outcome statements
- State outcomes succinctly (*about 10 words or less*) indicating clearly what change will look like -- a statement of a desired future condition. They must say '**what**' has changed, not '**how**' the change will be achieved. '**How**' will come later when you think about activities and strategies that will contribute to achieving the desired outcomes.
- Include the subject, or object, of change; who or what will experience the change?
- Use simple language – no ambiguity. Define the key terms used if necessary.
- Remove all unnecessary adjectives such as *quality, ensured, compliant, affordable, resilient, reliable* etc. that will increase the difficulty of measuring outcomes. It is assumed the outcome will incorporate good practice; you will not be delivering, by intent, low standard outcomes.
- Test that outcomes are likely to be achieved in the program timeframe. Draw a line across the outcomes map – where those outcomes below the line will be achieved in the life of the program, with those above the line being potentially achieved as a later consequence, or a subsequent project.

Developing A Project Logic: A Guide for Project Design

These are the key steps you can apply with your team to get the 'outcomes hierarchy' up onto the wall:

Step 1: Define and clarify the longer-term outcomes (5-10+years)

Describe the big picture changes the investor and partners are hoping to contribute to through the project, the desired future conditions for broader society, particular groups, or relevant institutions.

- Make sure that there is general agreement that these are the intended outcomes.
- They can be reviewed and refined at any stage as the 'outcomes hierarchy' is iteratively described.

Step 2. Describe the end-of-the project outcomes and intermediate outcomes that are desired/ intended, which will likely lead to the longer-term outcomes.

Endeavour to describe exactly what it is that you want individuals, groups, organisations or institutions to be doing differently. Look at the types of example changes in the definitions table in Note 1.

Map out the changes that you intend to achieve over time, with the earlier expected changes lower down 'on the wall'.

- Ideally, you will use arrows to demonstrate the cause and effect relationships between outcome levels (*this leads to that, and that leads to something else…*)
- This is where you need to be discussing as a group how you believe change will be achieved or influenced.

Step 3. Describe the inputs, activities/strategies, and outputs that will contribute to achievement of the expected intermediate and end-of-project and longer-term outcomes.

- As you describe activities, it is likely that you will review and refine the intermediate outcomes.
- Sometimes you are already implementing activities (often for political or other reasons) without having been clear about the outcome to which you have been trying to contribute. In this case you would start your 'outcomes hierarchy' at activity level and think upwards to describe intermediate outcomes.
- Sometimes you have several 'strands' of activities contributing to one intermediate outcome, or one activity contributing to a number of intermediate outcomes. Make sure you illustrate this in your 'outcomes' hierarchy. Arrows are useful to help illustrate the connections.
- As you document the activities describe how the activity will lead to your desired outcome. This is your theory of change.

Step 4. (Optional) Identify foundational activities that help you get ready to commence the project.

- Sometimes these are critical to commencement e.g. negotiating Memoranda of Understanding with partners, or negotiating funding arrangements, or it might be conduct of a particular piece of research, or development of an agreed strategy.

Developing A Project Logic: A Guide for Project Design

Step 5. Pause and reflect. Check the logic of your thinking

- Developing an 'outcomes hierarchy', and overall project logic, is an iterative process, take a step back and look at what you have done.
- Ask the group: *What is missing? What needs refining? Is this realistic? Are the cause and effect relationships you have depicted likely, or even possible? What could we remove? Can we be accountable for achieving these outcomes?*

Step 6. Capture the 'outcomes hierarchy'

- When the group is satisfied that the project logic is what you, and your partners, are endeavouring to achieve you will progress to further critiquing and then documenting assumptions.
- You can take a series of digital photos of your project logic to make sure that it is captured for turning into a diagram when you get back to the office.

Session 3: Articulate and Document Assumptions

An essential part of a project logic is the set of assumptions about how change is expected to happen in the particular situation for a project. When you develop project logic, you are developing a theory of what will change and describing how change occurs. In doing so you will make a number of assumptions, e.g. that (A) leads to (B), or even that it is possible that (A) will happen.

Assumptions are expectations, based on current knowledge and experience, about what is critical to or important for a project's success. Sometimes they are referred to as '**pre-conditions'**. Sometimes the assumptions are not well founded in knowledge and experience, particularly in pilot project designs. Articulate and document the assumptions that underpin your project logic to determine whether they are sound or plausible. This will provide a focus for testing and adapting the project logic during implementation.

To frame an assumption you say: "*For this project to succeed it is assumed that (...this condition is in place)......*"

With your group:

- Stand back from the project logic model, 'zoom out'.
- Consider the overarching assumptions you have made in the model, working through each outcome level and outcome statement. (Ask your group these questions: *What has to be in place for this output to contribute to that outcome? What has to be in place for this intermediate outcome to contribute to that end-of project outcome?*)
- Write each assumption on a separate piece of paper (red paper is good here!) and put them up on the wall on the 'outcomes hierarchy'.
- Word the overarching assumptions positively (e.g. **for this project to succeed it is assumed that** .... e.g. *Government agency officers will be supported by their managers and their organisations to implement what they have learned in the training*).
- Prioritise the assumptions in terms of how important it is that you investigate them. You can do this prioritisation with the workshop group being allocated 'votes' (e.g. coloured sticky dots) to allocate to what they perceive are the most 'wicked' or risky assumptions.

Developing A Project Logic: A Guide for Project Design

Document them in a table (*example below*). With the outcome hierarchy, the assumptions form a vital part of your project logic.

Key assumptions (*focus on linkages between outcomes – use positive wording*)	Importance of finding out more about this assumption (or managing for risk)!			
	High	Medium	Low	
1.				
2.				
3.				

👍👎 Session 4: Further Critique the Project Logic

When developing project logic, it is always important to be aware of those factors that are within the control or influence of the project (typically the lower levels in the project logic) and those that are not. (Refer to **Figure 1**.)

At this point it is useful to think in depth about these factors, which will either help, or hinder, the effectiveness of the project. Going through this process and documenting what is identified and agreed will enable the factors to be accounted for when considering the extent to which outcomes have been achieved. This process provides a reality check and a form of risk assessment.

*Working with your group identify the factors that might hinder the achievement of outcomes. (e.g. write on **orange** post-its). Then identify, if possible, any measures you could take to mitigate the factors. (e.g. write on **blue** post-its).*

*Then, identify the factors that could help the project and who could help you achieve them. (e.g. write on **green** post-its.) Document this as part of you overall project logic.*

Doing this will make your overall logic more robust.

⚠ Session 5: Identify the Risks Associated with the Assumptions

You have now completed your 'outcomes hierarchy' and have documented and prioritised your assumptions. One final step you may like to consider is further identifying the risk associated with the assumptions. Understanding the context, operating environment, and systems in which the project will operate is critical when it comes to designing and assessing the relevance of strategies and activities, anticipating operational problems, and finally assessing a project's contribution to change.

An implementing organisations control over factors in the project environment that influence (support or impede) the achievement of outcomes decreases as you progress up each level of the outcome's hierarchy (see **Figure 1** below).

Figure 1. The limits of control and accountability in a project

Foundational (Getting Ready)	Immediate (Activities)	Intermediate (End-project-outcomes)	Longer Term Outcome	Aspirational Goal
			What is the project **contributing** towards?	
What overall can the project reasonably be held **accountable** for influencing?				
What is within the **direct control** of management?				
Degree of control and accountability reduces				

It can be useful for your team to 'brainstorm' about what circumstances could present a risk to the likelihood of an assumption being correct – that is, that the project activities may not lead to the results assumed in the project logic. This is one part of assessing project risk and assist risk mitigation and management strategies to be put in place.

Table 1 provides a more in-depth way for your group to think about how likely it will be that the assumption is wrong and what will be the consequence for the project and if you can do anything about managing the risk.

Table 1. Project logic risk worksheet

Assumption	Likelihood of assumption being wrong 1-5 (1=rare, 5 = very likely)	Consequence for intermediate and longer-term outcomes if assumption is wrong 1-5 (1=insignificant; 5= extreme)	Risk management strategies
Add more rows as needed			

Conclusion and Next Steps

You will now have a basic understanding of what project logic is, why and when you use it and some experience in building project logic that is relevant for your work.

- Put your project logic up on your office wall – written out on A4 coloured paper, keep it visible.
- Make sure that you and your team can explain it to people who do not know what you are doing.
- Use the logic to test your activity decisions. Will this activity lead to this desired outcome?
- Keep it alive and use it for framing your reporting and refining your approach.
- Celebrate when you have achieved important steps along the way!
- Keep an eye on your assumptions.

Output: A useful project logic: has been developed collaboratively, meets your needs for describing your project and can be readily understood by your colleagues and project partners.

References

Source: Rogers, P. (2005) **Logic Model**, in Encyclopedia of Evaluation, edited Mathison, S. Sage Publications, California. *pp 232-235*

[1] The term 'Longer term outcome' is often used interchangeably with 'Goal'.