Open learning course: List of training material (Access to Climate finance, project planning and management)

Section		Name of materiala	Type	Length
Part 1		**Project planning, budgeting and scheduling**		
	1.1	Theory of Change		
		Theory of Change	Movie file	13 min.
		Lecture slides and notes	PDF	-
	1.2	Facilitation for project planning		
		Project objectives_part1 (1. Introduction, 2. Problem trees, 3. Objectives trees)	Movie file	10 min.
		Project objectives_part2 (4. Logical framework, 5. Summary)	Movie file	10 min.
		Lecture slides and notes	PDF	-
	1.3	Project schedule and budget		
		Project schedule	Movie file	16 min.
		Project budget	Movie file	18 min.
		Lecture slides and notes	PDF	-
Part 2		**Project execution, monitoring and evaluation**		
	2.1	Project management		
		Project life cycle, main components of execution and management, managent of constraints	Movie file	12 min.
		Quality management, risk management and risk response	Movie file	9 min.
		Lecture slides and notes	PDF	-
	2.2	Monitoring and Evaluation (M&E): from basic to practice		
		Key terminologies in M&E		
		Key terminologies used in M&E, and their application and examples	Movie file	19 min.
		Developing an M&E plan for a climate proposal		
		Tips to make a good M&E plan and how to developing a monitoring plan	Movie file	19 min.
		Key elements of and evaluation plan and M&E requirements, reporting and learning	Movie file	8 min.
		Lecture slides and notes	PDF	-

THEORY OF CHANGE IN DEVELOPING BANKABLE PROJECT PROPOSALS

DR. PETER KING

SENIOR POLICY ADVISOR

INSTITUTE FOR GLOBAL ENVIRONMENTAL STRATEGIES

BANGKOK REGIONAL CENTRE

A Theory of Change in developing bankable project proposals.

GCF GUIDANCE ON THEORY OF CHANGE

- The project scoping exercise should start with the identification of the climate change problem that the proposed project is aiming to address. This determination will form the starting point and basis for the theory of change diagram, which articulates how the project will address the identified problem.

- The theory of change, despite being called a "theory", is a methodological approach that allows AEs and project developers to design and plan a project by first setting up the long-term project goals and objectives then mapping backwards to identify the necessary preconditions to meeting those goals, the project outcomes and outputs, as well as the assumptions under which the theory of change is developed. In this way, the theory of change clearly articulates how the results chain will cascade from the theory of change statement to the project activities.

- The innovation of the theory of change lies in making the distinction between desired and actual outcomes, as well as in requiring stakeholders to model their desired outcomes before they decide on forms of intervention to achieve those outcomes.

GCF has provided guidance on a theory of change, and this presentation will help to understand exactly what GCF is looking for in relation to theory of change.

Firstly, the project scoping exercise should start with the identification of the climate change problem that the proposed project is aiming to address. Generally, that's done through a problem tree.

This determination will form the starting point and the basis for your theory of change diagram or narrative, which articulates how the project will address the identified problem.

The theory of change, despite being called a theory, is actually a methodological approach that allows accredited entities and project developers to design and plan a project by first setting up the long-term project goals and objectives and then mapping backwards to identify the necessary preconditions and inputs to meeting those goals.

The project outcomes and outputs as well as the assumptions under which the theory of change is developed.

In this way, a theory of change clearly articulates how the results chain will cascade from a theory of change statement to the project activities.

The innovation of the theory of change lies in making the distinction between what is a desired outcome and the actual outcomes, as well as in requiring stakeholders to model their desired outcomes before they decide on the forms of intervention to achieve those outcomes.

THEORY OF CHANGE

- SOME COMMON QUESTIONS
  - **What is the difference between a "theory of change" and the "logical framework"?**
  - **What are the implementation implications of the theory of change?**
  - **Why aren't the climate predictions a required element of the theory of change?**
  - **Why is a theory of change best presented as a diagram instead of narrative text?**
  - **Who should be involved in developing the theory of change?**

Now some common questions that are often asked in relation to the theory of change.
Firstly, what is the difference between a theory of change and the logical framework? Often, they appear to be used interchangeably.

What are the implementation implications of a theory of change? Why are climate predictions a required element of the theory of change? And why is the theory of change often best presented as a diagram instead of a narrative text?
And who should be involved in developing the theory of change? Well, we'll try and answer some of those questions as we go through the presentation.

Figure 1: Relationship between project theory of change and logical framework

A good way to think about the difference between a theory of change and the logical framework is that the theory of change is essentially at a conceptual level.

So what assumptions is a project based on? What are the underlying conditions that make the core problem currently unmanageable, often through vulnerability assessments or identification of gaps and barriers?

And how is the project going to change these underlying conditions?
It will describe the outcomes and impacts at a high level of the logic chain.
The logical framework, however, is a more procedural arrangement where we look at what tools will a project use, what are the specific procedures that the project will apply to make the change that's desired actually happen?
And what are the specific targets of this procedure and how will progress be measured? And it describes the outcomes, the outputs and activities, as well as the input supports to achieve those activities.

The **climate context** provides the scientific underpinning for evidence-based climate action decision-making and the theory of change for all activities funded by GCF. It ensures that the set of causal linkages between the climate and climate impacts/hazards and action and societal benefits is fully grounded in the best available climate data and science. It demonstrates that the proposed interventions advance a national priority related to climate change mitigation and/or adaptation in terms of reducing GHG emissions or improving the resilience of people and communities and should meet at least one of the eight GCF results areas.

The **theory of change** explains to the funder (GCF) why you think your project will work, and why the funder should expect the project to bring about the results you envision for the project. A good theory of change is like the backbone of a well-designed and fundable project proposal. Many proposals are rejected because they don't include a theory of change, or because the theory of change doesn't adequately show how the project moves from problem to solution.

The climate context provides the scientific underpinning for evidence-based climate action, decision making and the theory of change for all activities funded by the GCF. It ensures that the set of causal linkages between the climate and climate impacts or hazards, and action and societal benefits is fully grounded in the best available and most up to date climate data and science.

It demonstrates that the proposed interventions advance a national priority related to climate change mitigation and or adaptation in terms of reducing greenhouse gas emissions or improving the resilience of people and communities and should meet at least one of the eight GCF resolve areas.

The Theory of Change explains to the funder, that is the GCF, why you think your project will work and why the funder should expect the project to bring about the results you envision for the project.

A good theory of change, therefore, is like the backbone of a well designed and fundable project proposal. Many proposals, in fact, are rejected because they don't include a theory of change or because the theory of change doesn't adequately show how the project moves from problem to solution.

LEVELS OF THE LOGIC MODEL

Impact level	Societal change?	Aggregate changes achieved in the GCF key strategic results areas
Outcome level	What changes?	Aggregate changes achieved in the country or region, as well as in the relevant policies and policy documents
Output/project result	What deliverables?	Changes achieved as a result of project or programme activities
Activity	How to deliver results?	Direct services provided through GCF investments
Input	What is needed?	GCF grants, concessional loans, guarantees or other financial instruments, as well as human effort

And there are different levels of the logic model that apply in the theory of change. At the impact level, which is the highest level, we're actually looking for societal change. What are the aggregate changes achieved in the GCF key strategic result areas?

At the outcome level, we're asking what changes? What changes are achieved in the country or region or project area, as well as in the relevant policies and policy documents at the national level? At the output or project result level we're really asking what are the tangible deliverables that the project will provide?

What are the changes achieved as a result of a project or programme activities?

At the activity level we're asking the question how do we deliver the results? And these are the direct services provided through GCF investments. And at the input level we ask what is needed to deliver the results?

These can be the GCF grants, concessional loans, guarantees or other financial instruments as well as the human effort that goes into project implementation.

GCF Model Theory of Change

Ref:
https://www.greenclimate.fund/sites/default/files/document/gcf-programming-manual_0.pdf

Inputs allow activities to be carried out that will deliver project outputs, which in turn will meet the immediate purpose of the project and contribute to the longer-term goal.

The GCF has provided a standard diagram that is relatively easy to fill in and it basically moves from the understanding of that inputs will allow activities to be carried out that will deliver project outputs which in turn will meet the immediate purpose of the project and contribute to the longer term goal that GCF is trying to achieve through its overarching paradigm shift.
Importantly, the goal statement also operates on a logical basis and says if we carry out activity X then we achieve output Y because we have undertaken a series of inputs.

TRANSITION FROM PROBLEMS TO OBJECTIVES

Source: USAID

Every problem will have multiple causes, so the "art" of project design is to identify a core problem that can actually be solved.

Climate change will not be solved by a single project, but coastal flooding due to sea level rise can be solved.

Now every problem will have multiple of course.

So the art of project design is to automatically identify a core problem that can actually be solved. Climate change is so enormous and so all encompassing it cannot be solved by a single project. But coastal flooding in a specific area due to sea level rise is something that can be solved through an adaptation project.
So it's really important then to identify a problem which is solvable and then the desired result is something which is actually achievable.

A Series of "If…Then" Statements

Certain resources are needed to operate your program	**If you** have access to them, **then** you can use them to accomplish your planned activities	**If you** accomplish your planned activities, **then** you will hopefully deliver the amount of service that you intended	**If you** accomplish your planned activities to the extent you intended, **then** your participants will benefit in certain ways	**If these** benefits are achieved, **then** certain changes in groups or communities are expected to occur
Resources/ Inputs →	Activities →	Output →	Outcome →	Impact
Your Planned Work		Your Intended Results		

Source: CDC's *Developing and Using logic a Logic model*

And the logic that underpins the theory of change is that you need certain resources to operate your programme or your project.
These are the inputs and if you have access to these inputs then you can use them to accomplish your planned activities. And if you accomplish your planned activities, then you will hopefully deliver the amount of products and or services that you intended as part of your project design.
And these are the outputs. And if you accomplish your outputs and planned activities to the extent you intended, then your participants or beneficiaries will benefit in certain ways. These are your outcomes.

And if these benefits to the participants and outcomes are achieved, then certain changes in organisations, communities or systems might be expected to occur and contribute to the impact that the GCF is looking for.

| GOAL	
GOAL STATEMENT	**Sustaining community resilience to climate change risks**
	IF communities have access to safe shelter, water and food supplies all year-round and adopt climate resilient practices in their daily lives THEN community resilience can be sustained BECAUSE they are better prepared for climate change risks
RESULTS (Fund level) – defined by GCF	• A1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities, and regions • A2.0 Increased resilience of health and well-being, and food and water security • A3.0 Increased resilience of infrastructure and the built environment to climate change
OUTCOMES (Fund level) – defined by GCF	• A5.0 Strengthened institutional and regulatory systems for climate-responsive planning and development • A6.0 Increased generation and use of climate information in decision-making • A7.0 Strengthened adaptive capacity and reduced exposure to climate risks • A8.0 Strengthened awareness of climate threats and risk-reduction processes
RESULTS (Project level) – defined by the project	• An effective island /district and community development and CCDRR plans • Community-driven climate resilient interventions are implemented and sustained • Strengthened capacity of the Local Government and NGOs /CSOs to support community-based adaptation measures • Strengthened leadership in climate change and disaster risk reduction within the Local Government, NGOs /CSOs and the Community • An operational and effective community-based small grants programme

Here is a fairly typical narrative type approach for a theory of change. It starts with an overarching goal which is sustaining community resilience to climate change risks. It has this if then because goal statement if communities have access to safe shelter, water and food supplies all year round and adopt climate resilient practices in their daily lives, then community resilience can be sustained because they're better prepared for any future climate change risks.

And the results which are at the fund level and defined by the GCF are increased resilience and enhanced livelihoods, increased resilience of health and wellbeing, food and water security, increased resilience of infrastructure and the built environment to climate change and these are defined by the GCF and must be reflected in the project design.

Similarly, at the outcome level these are also defined by the GCF and in this case would be a 5.0 through to a 8.0 relating to strengthened institutional and regulatory systems, increased generation and use of climate information, strengthen adaptive capacity and reduced exposure to climate risks and strengthen awareness of climate threats and risk reduction processes.

And the results are actually defined at the project level and are defined by the project proponent and these may be things like an effective island or district and community development with climate change and disaster risk reduction plans. Community driven climate impact interventions are implemented and sustained.
Strengthen capacity of local government and NGOs, strengthen leadership in climate change and DRR within the local government, and an operational and effective community based small grants programme to provide the funding to carry out these interventions.

I won't go through the detail of this particular slide is simply to show the kind of diagrammatic format that the GCF is looking for.
In addition to the narrative type approach for the theory of change.

Here is another version, a simpler version of that rather complicated theory of change.
And here you can see that there is a logical connection between the various activities, the intended outputs, the outcomes and the ultimate goal of the project. And below the line there are the risks and assumptions that underpin the project design.

THANK YOU FOR YOUR ATTENTION

So I'll leave it there and thank you for your attention. I hope this has given you some insight into what is a theory of change and how important it is in designing a bankable project, particularly for the GCF.

Facilitation for project planning

- Project Objectives -

Peter King | Senior Policy Advisor
IGES

Tetsuya Yoshida
JICA Short-term Expert
Oriental Consultants Global, Co., Ltd.

CONTENTS

Introduction

- In formulating *a climate change adaptation/ mitigation project*, the theory of change and the **logical framework** are key elements.

- They are described as <u>tools of logic that connect cause and effect.</u>

- All projects are designed to overcome a problem, but problems may have multiple causes.

- How do we know if we have identified the **core problem** and the **main causes?**

- All projects are <u>intended to achieve a purpose or a goal</u> and if it fails to achieve that end point (or ultimate effect) then the project is regarded as a failure. In the case of climate change adaptation projects, failure may also result in maladaptation.

- This session is intended to help you come to the right decisions that will lead to a convincing logical framework that will guide successful implementation.

In formulating any climate change adaptation project, the theory of change in the logical framework are key elements but what do they really mean? They're described as tools of logic that connect cause and effect but how do we uncover those connections? Now all projects are designed to overcome a specific problem, but problems may have multiple causes so how do we know if we have identified the core problem and the main causes? Again all projects are intended to achieve a purpose or a goal and if the project fails to achieve that in point or ultimate effect.

Then, the project is regarded as a failure. In the case of adaptation projects, failure may also result in what's called maladaptation or the opposite to what is expected. So, this session is intended to help you come to the right decisions that would lead to a convincing theory of change and a logical framework that will ultimately guide successful implementation.

Brainstorming a "Problem Tree"

Starting point: construct **a problem tree** that links causes and effects

1. Define *"core problem"*
   - Displacement due to flooding
   - Water/sanitation deficiencies
2. Identify **direct causes** and **direct effects**
   - Cause- Heavy rains
   - Cause- Overburdened infrastructure
   - Cause- Settlement in flood prone areas
   - Cause- Obstructed drains
   - Effect - Increased vulnerability
   - Effect - Damage to infrastructure
3. Identify **secondary (indirect) causes**
   - Rural-urban migration
   - Lack of planning
   - No responsible lead agency
   - Inadequate urban finance

Source: USAID

We start off with brainstorming a problem tree. A problem tree is something that links causes and effects. It basically has 3 steps. The first step is to define what is a core problem you're trying to solve. It could be something like displacement due to flooding or it could be water or sanitation deficiencies. Then, you identify the direct causes and the direct effects. The cause of flooding could be heavy rains or could be overburdened infrastructure or it could be settlements in flood-prone areas or obstructed drains. The effect could be an increase of vulnerability of communities or could be damage to roads and other infrastructure.

Then, the third step is to identify the secondary or underlying driving causes. These could be issues like so many people are moving from rural areas to urban areas, could be a lack of urban planning, could be that there is no responsible lead agency driving the process, or it could be that there is inadequate urban finance. The secondary cause leads to the immediate cause. The immediate cause leads to the core problem, and the core problem leads to the immediate effect. That's the logical chain of events that underpins a problem tree.

Brainstorming

- Break participants into small groups.
- Prepare flipcharts, post-it notes, marker pens, and a table to spread out.

- Step 1. Consider what you think **the main problem** is.
- Step 2. Analyse what is **the main cause** of that main problem.
- Step 3. Check if there is **any other cause** of that direct cause.
- Step 4. Re-arrange all the answers in a tree.
- Step 5. Do the same for the effects, identify the **direct effects** and **indirect effects** of that main problem.

- You will be asked to do the same in an exercise in this training course.

Now to get to the problem tree. The best way of doing this is through brainstorming.

With breaking participants into relatively small groups so that every voice is heard making sure that they're all well equipped with flip charts, post-it notes, marker pens and a table to spread out on. And you start by asking each person what they think the main problem is and write down their answers on a post-it note. In a second-round ask each person what they think is the main cause of that core problem, and in the third round ask if there is any other cause of that direct cause. You rearrange all the answers in the form of a tree with roots and a trunk and some branches, starting off with a consensus on what you believe to be the main or the core problem. Step back from that and check if any key cause has been missed. Now do the same for the effects starting with the direct effects and then possibly secondary or indirect effects.

Now take note of these directions because later on in the course you'll actually be asked to do this in an exercise.

The problem tree is the "engine" of the project design


Source: USAID

- Involve the project beneficiaries and ask them to brainstorm about what they think the problem is.
- Do not assume you know what the real problem is.
- Do not start from an assumption that climate change is the problem.

Useful tips:
- It is critical to identify the core problem right in formulating a project.
- Avoid including contributing causes in the core problem statement.
- Identify one most important issue as the core problem, and avoid including multiple elements in the core problem (e.g. property damage due to severe floods).

Now the problem tree is really the engine of the project design and it's always advisable to involve the project beneficiaries and ask them to brainstorm about what they think the problem is. As an expert don't assume you know what the real problem is. You may not have sufficient local knowledge. And don't start from an assumption that climate change is a problem simply because you're preparing a concept note for the GCF. In this particular case that I've shown here where the brainstorming is very messy, the participant started with an assumption that climate change was the core problem but as the brainstorming progressed it was realized that actually the core problem was a decline in fish productivity and climate change was really just one of multiple causes.

Use post-it notes to move things around

Source: USAID

Now the reason we suggest to use post-it notes is so that you can move things around on the roots and branches of the tree that enables you to organize your thoughts in a more logical fashion.

Reorganise the messy brainstorming

Livelihood change

reduced fisheries capture

Fisheries Productivity Declining

Change in zoning

Illegal fishing

Species decline

Ecosystem change

Habitat change

Access to water (-)

Water temp. (+)

Flood timing changes

water quality (-)

drought (+)

Climate Change

Deforestation of flood forests, mangroves

Water pollution, ag. & industry

Population increase
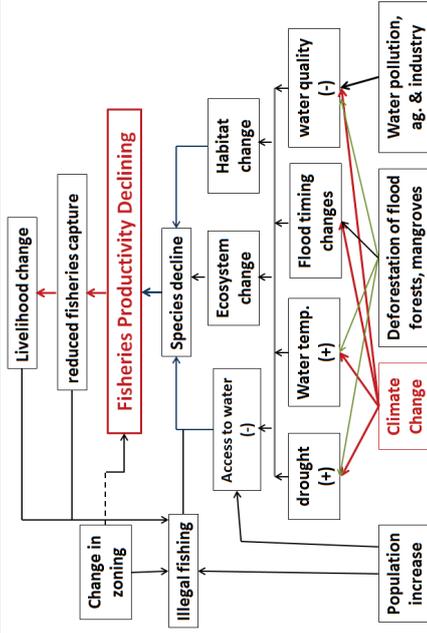
Source: USAID

Once you've done that then it's always good to try and reorganize the messy brainstorming approach into something which ultimately could go into a project document and demonstrate some clear thinking in terms of what are the causes, what is the core problem and what are the effects.

Transition from Problem tree to Objectives tree

Effect 1, Effect 2, Effect 3

Core Problem

Direct cause 1, Direct cause 2

Indirect cause 1, Indirect cause 2, Indirect cause 3, Indirect cause 4

Impact 1, Impact 2, Impact 3

Desired result

Direct means 1, Direct means 2

Indirect means 1, Indirect means 2, Indirect means 3, Indirect means 4

Tips:
- Problem tree and objectives tree are mirror images of each other – one negative, the other positive.
- The Means you identify in the Objectives Tree will be the basis of Project Activity in your Logical Framework.

- Every problem will have multiple causes.
- The "art" of project design is to identify a Core Problem that can actually be solved.
- Climate change will not be solved by a single project, but an eroding coastline due to sea level rise can be solved.
- Solving the Core Problem will provide the desired result at the end of the project.
  This result will contribute to other positive outcomes and long-term impacts.

Source: USAID

Once we have a problem tree worked out, it's relatively simple to transition from a problem tree to an objectives tree. Every problem will have multiple causes so the art of project design is to firstly identify your core or focal problem that can actually be solved. Climate change is a global problem, it is not going to be solved by a single project but an eroding coastline in a specific location due to the sea level rise can be solved. Now solving the core problem will provide the desired result at the end of the project, but that result in turn will contribute to other positive outcomes and long-term impact beyond the scope of the specific project.

An Objectives Tree

- Objectives trees transform all problems from your Problem Tree into an objective – Each negative problem will become a positive objective.

- Each cause can be transformed into a possible project activity or component. For example, water pollution control or reforestation could be key activities.

Source: USAID

We come up with an objectives tree by basically transforming all of your problems from your problem tree into an objective. So each negative problem is then turned around to become a positive objective. And note again that climate change might not be the core problem but it could be one of the contributing objectives. Below the core result or project output, each cause can be transformed into a possible project activity or component. For example, in this objectives tree, water pollution control, reforestation or ecosystem restoration could be key activities that ultimately contribute to species recovery and the improvement in fisheries productivity.

Check that no critical cause or effect has been missed

- Once your problem tree and objectives tree have been completed, stand back and discuss if anything has been missed or if a specific cause or effect is too minor to include.

- In the fisheries productivity example, one of the key elements that the brainstorming missed was the lack of capacity in the local compliance and enforcement agency, which was a contributing cause of the water pollution problem, the deforestation problem, and inadequate control of the illegal fishing. This omission could have been because the brainstorming group did not include people outside the government or potential beneficiaries.

- If this capacity issue was not addressed, then the whole project could fail. Later on we will see why the logical framework would have included this as a potential risk or assumption.

Once your problem tree and your objectives tree have been completed, stand back, have them side by side and discuss if anything is being missed or if a specific cause or effect is too minor to include. In the fisheries productivity example, one of the key elements with the brainstorming missed was the lack of capacity in the local compliance and enforcement agency, which was a contributing cause of the water pollution problem, the deforestation problem, and inadequate control of the illegal fishing. This omission could have been because the brainstorming group did not include people outside the government or potential beneficiaries. Now if this capacity issue was not addressed, then the whole project could fail and later on we'll see why the logical framework would have included this as a potential risk or an assumption.

Use the objectives tree to decide on project alternatives

- There may be several alternative ways that a project can contribute to the development objective.
- The objectives tree can help to illustrate these alternative pathways and lead to a consensus on which one shows the most promise for reaching the central development objective.
- In some cases, the objectives tree might highlight the possibility of complementary projects that will combine to reach the central development objective.
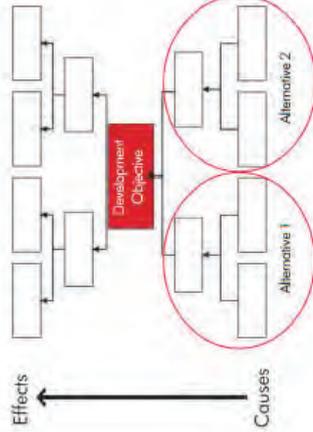
Useful tips:
- Direct Causes and Indirect Causes you identified in the Objectives Tree can be the basis of your Logical Framework (transformed as Project Activity and Inputs).
- You can put only the selected Causes in your Logical Framework which are relevant to your project objectives.

Source:　ADB

Now we can also use the objectives tree to decide on project alternatives. There are often several alternative ways that a project can contribute to the development objectives. The objectives tree can help you to illustrate these alternative pathways and lead to a consensus on which one shows the most promise for reaching the central development objective. In some cases, the objectives tree might also highlight the possibility of complementary projects that will each combine to reach the central development objective.

Logical Framework

- A logical Framework is also called:
  - Project Framework
  - Logframe
  - Project Decision Matrix
  - Results Framework
  - Design and Monitoring Framework

- Standard sections:
  - **Four Columns** – Design Summary (Description), Performance Targets, Monitoring Mechanisms, and Assumptions and Risks;
  - **Five Rows** – Goal, Purpose (Outcome), Outputs, Activities, Inputs.

- Note hierarchical "logical" relationships vertically and horizontally, link all 20 frames.

- **Inputs** allow **activities** to be carried out that will deliver project **outputs**, which in turn will meet the immediate purpose (**outcome**) of the project and contribute to the longer-term **goal**.

Source: ADB

Now turning to the logical framework, sometimes is also called the project framework or shortened to logframe. Sometimes it's called a project decision matrix, a results framework or a design and monitoring framework. These are essentially different terms for the same matrix. There are standard sections. There are four columns: a design summary or description, performance targets, monitoring mechanisms and assumptions and risks. And there are 5 rows:: the goal, the purpose sometimes called an outcome, outputs, activities and inputs. So note that there is a hierarchical logical relationship both vertically and horizontally that links together all 20 frames of the logical framework. A way to understand this is that the inputs allow activities to be carried out that will deliver the project outputs, which in turn will meet the immediate purpose of the project and contribute to the longer-term goal.

Develop the Logical Framework from the Objectives Tree

Objectives Tree

Impact 1 — Impact 2 — Impact 3

Desired result

Direct means 1 — Direct means 2

Indirect means 1 — Indirect means 2 — Indirect means 3 — Indirect means 4

Project Outputs should be linked with Desired Result of Objectives tree

Activities and Inputs should be linked with the means of Objectives tree

Logical Framework

Project Outcome

Project Output

Activities and Inputs

Source: USAID

Going from the objectives tree to the logical framework is a simple process where the means in the objectives tree are basically what becomes the inputs and activities that lead to the end of project outputs, which is the same as the desired result of the objectives tree. The purpose or outcome and the goals or impacts of the extension beyond the project boundary is equivalent to the results both direct and indirect that come from the objectives tree.

Performance targets

Design and Monitoring Framework   Reference version

Design Summary	Performance Targets/Indicators	Data Source/Reporting Mechanisms	Assumptions/Risks
Impact			
Outcome			
Outputs			
Activities with Milestones			Inputs

Source: ADB

➤ To ensure that each design "element" is implemented as planned, performance **targets** are specified, as are the mechanisms for **measuring** these targets – plus the **risks** that could upset achievement are explicitly recognized and assumed to be mitigated (by another project, by the government agency, or by other means).

➤ Unmitigated or unforeseen risks could torpedo an otherwise well-developed project.

Certain resources are needed to operate your program — *If you have access to them, then you can use them to accomplish your planned activities* — *If you accomplish your planned activities, then you will hopefully deliver the amount of product and/or service that you intended* — *If you accomplish your planned activities to the extent you intended, then your participants will benefit in certain ways.* — *If these benefits to participants are achieved, then certain changes in organization, communities, or systems might be expected to occur*

Resources/Inputs ① — Activities ② — Outputs ③ — Outcomes ④ — Impact ⑤

Your planned work   Your intended results

In relation to performance targets, it's important to ensure that each design element is implemented as planned. So, performance targets are specified as well as the mechanisms for measuring those targets. Then in turn, the risks that could upset achievement are explicitly recognized and assumed to be mitigated either by another project, by the government agency or by other means. Unmitigated or unforeseen risks could actually torpedo an otherwise well-developed project. Another way to think about the logic of the logical framework is that your planned work will consist of the resources and inputs that you have available to operate your program. These contribute to a certain number of activities, so if you have those inputs, you can use them to accomplish your planned activities. These in turn lead to your intended results. Firstly, if you accomplish your planned activities, then you will hopefully deliver the amount of product or service that you intended at the end of the project. If you achieve those outputs, then you may benefit wider outcomes at your national level, at the regional level, or at the global level and if you achieve those outcomes

then you may be able to contribute in some way to much broader impact, such as the Paris agreement for example.

additional indicators and there is a website where you can see those additional indicators that you may use in your own project designs.

Note:

https://www.greenclimate.fund/sites/default/files/document/mitigation-adaptation-performance-measurement.pdf

Please refer to page 7 and 8 of the document "Mitigation and adaptation performance measurement frameworks" for details.

Logical framework approach of Green Climate Fund (GCF)

In this Logframe template (version 2.0), GCF specifies the ultimate goal (paradigm shift), fund-level impacts, and core indicators.

In addition to the core indicators, GCF also suggests additional indicators at:

https://www.greenclimate.fund/sites/default/files/document/mitigation-adaptation-performance-measurement.pdf

https://www.greenclimate.fund/document/integrated-results-management-framework

Paradigm shift objective: Increased climate resilient sustainable development

Fund-level impacts (adaptation):

✓ 1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities, and regions

✓ 2.0 Increased resilience of health and wellbeing, and food and water security

✓ 3.0 Increased resilience of infrastructure and the built environment to climate change threats

✓ 4.0 Improved resilience of ecosystems and ecosystem services

Core indicators (for adaptation): e.g. Total Number of direct and indirect beneficiaries; Number of beneficiaries relative to total population; Number and value of physical assets made more resilient to climate variability and change, considering human benefits (reported where applicable)

The way the Green Climate Fund approaches the logical framework is worthwhile getting a better understanding as you will often be involved in looking at this framework. The first thing to note is that the ultimate objective or the impact that is intended is specified as a paradigm shift objective of the GCF. Given that the overall mandate for the GCF is a paradigm shift. In the case of an adaptation project, this is increased climate-resilient sustainable development. The GCF also defines fund level impacts and in the case of an adaptation project, there are basically four of these: increased resilience and enhanced livelihood with the most vulnerable people, communities and regions, increased resilience of health and well-being and food and water security, increased resilience of infrastructure and the built environment to climate change threats, or improved resilience of ecosystems and ecosystem services. Now for each of these impacts GCF has also indicated a number of core indicators. In the case of an adaptation project, it is the total number of direct and indirect beneficiaries plus the number of beneficiaries relative to the total population.

It could also be the number in value of physical assets made more resilient to climate variability and change considering human benefits where applicable. Note that GCF specifies the ultimate goal, the fund level impacts and the core indicators. In addition to these core indicators, the GCF also suggests

Logical framework approach of GCF (cont.)

H.1.2. Outcomes, Outputs, Activities and Inputs at Project/Programme level				Target		Assumptions
Expected Result	Indicator	Means of Verification (MoV)	Baseline	Mid-term (if available)	Final	
Project/programme outcomes	Outcomes that contribute to Fund-level impacts					
Choose expected outcome	Please select relevant GCF indicators from the Fund's performance measurement framework. More than one indicator may be selected per expected impact result.					
Specify other expected results						
Specify other expected results						
Project/programme outputs	Outputs that contribute to outcomes					
1.						
2.						
3.						
Activities	Description	Inputs	Description			
1.1.		1.1.1.				
1.2.		1.1.2.				
2.1.		1.1.3.				

Outcomes (for adaptation):

- 5.0 Strengthened institutional and regulatory systems for climate responsive planning and development
- 6.0 Increased generation and use of climate information in decision-making
- 7.0 Strengthened adaptive capacity and reduced exposure to climate risks
- 8.0 Strengthened awareness of climate threats and risk reduction processes

Outputs, Activities, Inputs: *to be uniquely designed by the project*

The latest template of GCF funding proposal and results management framework can be found at:

https://www.greenclimate.fund/document/funding-proposal-template
https://www.greenclimate.fund/document/integrated-results-management-framework

Summary of this presentation

- All projects are designed to overcome a problem, but problems may have multiple causes, so a "**problem tree**" helps to sort out cause and effect.
- Similarly, all projects are intended to achieve a purpose or a goal and if we fail to achieve that end point (or ultimate effect) then the project is regarded as a failure. An "**objectives tree**" helps to identify the means of achieving a desired result or output at the end of a project, as well as indicating the longer-term outcomes and impacts that the project can contribute to.
- The **objectives tree** is simply the mirror image of the problem tree, where all negatives are turned into positives. The objectives tree may also highlight alternative pathways to achieve the desired result as well as indicating the possibility of multiple, complementary projects.

  ■ The objectives tree contributes the "bones" of the **logical framework**, which consists of **Four Columns** – Design Summary, Performance Targets, Monitoring Mechanisms, and Assumptions and Risks; and **Five Rows** – Goal, Purpose (Outcome), Outputs, Activities, Inputs.

  ■ Most funding sources require a logical framework (or equivalent) as a crucial part of any project proposal. The Green Climate Fund (GCF) specifies the ultimate goal (paradigm shift), fund-level **impacts**, and core **indicators**. In addition to the core indicators, GCF also suggests additional indicators for the **outcome** level, while leaving the project **output** targets and indicators to the project designers.

Moving further down in the logical framework to the outcomes. The GCF also specifies the outcomes. In the case of adaptation projects, these are again four: strength and institutional and regulatory systems for climate responsive planning and development, increased generation and use of climate information in decision-making, strengthened adaptive capacity and reduced exposure to climate risks, and strengthened awareness of climate threats and risk reduction processes. Then to go one step further down to the project or program outputs. These are left up to the program designer or the project designer to specify. Then you come down to the activities and a description of those and the inputs required to achieve each of those activities and again a description of those and that information then goes into your budget proposal.

Note:

https://www.greenclimate.fund/sites/default/files/document/mitigation-adaptation-performance-measurement.pdf

Please refer to page 9 and 10 of the document "Mitigation and adaptation performance measurement frameworks" for outputs examples of GCF.

To summarize, all projects are designed to overcome a specific problem but problems may have multiple causes, so a problem tree helps to sort out cause and effect.

Similarly, all projects are intended to achieve a purpose or a goal and if we fail to achieve that endpoint or ultimate effect then the project is regarded as a failure. An objectives tree helps to identify the means of achieving a desired result or output at the end of a project as well as indicating the longer-term outcomes and impacts that the project can contribute to in some small way.

The objectives tree is simply the mirror image of the problem tree where all of the negatives of the problem tree are turned into positives. The objectives tree also highlights alternative pathways to achieve the desired result of the project as well as indicating the possibility of multiple complementary projects to achieve the core objective. The objectives tree contributes the bones of the logical framework which consists of 4 columns: a design summary, performance targets, monitoring mechanisms and assumptions and risks, and 5 rows: goal purpose, output activities and inputs giving a total of 20 elements that need to be filled in. Now most funding sources require a logical framework or its equivalent as a crucial part of any project proposal. The Green Climate Fund specifies the ultimate goal, that is a paradigm shift, the fund level impacts, which they have pre-defined and the core indicators. In

addition to the core indicators, GCF also suggests additional indicators for the outcome level while leaving the project output targets and indicators to the project designers.

Project schedule and budget

- Project schedule -

Lano Fonua PMP | CFAN Advisor (Tonga)
GGGI

Hello and welcome, my name is Lano Fonua, I am a CFAN Advisor for Tonga with the GGGI and also a certified Project Management Professional I have over 10-years experience in development and climate change projects in the Pacific and Caribbean....and...I will be taking you through sub-module 3.1.1 the Project Schedule...

CONTENTS

1. Learning objectives
2. Overview of Project Planning
3. Work Breakdown Structure (WBS)
   - Breaking down the scope
4. Project Schedule
   - Planning a logical sequence of activities
5. Sub-module Summary

Today's presentation is in five parts, first a quick summary of the learning objectives of the sub-module, second an overview of project planning and why it is important, third we will look at Work Breakdown Structure which is the most important input to the process of developing a project schedule, fourth we will cover some of the tools that are used to create your project schedule and finally a quick summary to tie it all together.

---

1. Learning objectives

1.   Work Breakdown Structure

- To take the first step in planning a project by applying the tool that breaks down the scope of the project: the Work Breakdown Structure (WBS):
  - To identify the inputs that are needed to create a WBS.
  - To understand and apply the techniques to decompose work in a project.
- To understand the relevance of the WBS tool within the context project scope management.

2.   Project Schedule

- To use the output of the WBS above to plan project times.
- To identify the process to create a project schedule.
  - To understand the inputs that are needed to create a timeline.
  - To understand the techniques to estimate the duration of project activities.
- To determine the schedule critical path.

- Development projects often have delays in their execution and I'm sure we've all read reports attributing these to "a lack of capacity" of project implementors or the institutional environment or even the complexity of projects….all things that should be captured with better scheduling and definition of scope.
- In this sub-module, I am to provide you a summary of the tools and techniques to help you build better project schedules first learning about how to break down the project scope using the Work Break Structure, known as the WBS,
- AND then learning how to use the WBS to prepare a project schedule that includes the important logical relationships between key activities.
- Lets begin….

2. Overview of Project Planning

Have you ever had a project where additional work was identified during implementation? For example, you have a project to build a new road to a rural community but half-way through you realise that a Social and Gender Risk Assessments was required for approval of a design by the funding agency, now work has to stop while you and your team have to deal with this mini-crisis, instead of continuing with work that was already planned? That's the situation that a Work Breakdown Structure or WBS aims to avoid by minimising surprises, delays and cost overruns.

---

2. Work Breakdown Structure: Breaking down the scope

Objective/Purpose: The desired impact of the project components

Component: The set of outputs grouped by type

Output: The result of the project deliverables

Deliverables: The services, products, or work that the project creates by means of work packages

Work Packages: Group of tasks that are performed to create project deliverables. This is the WBS lowest level

So What is a WBS? Its taking the project and breaking it down into manageable components, which in turn are further broken down into their constituent outputs and finally the work packages to deliver these outputs.
The act of breaking down the scope, also called decomposition, aims to "break down the scope of the project from the general to the specific, where cost and duration of work can be estimated and managed for the lowest level Work Package.
...this is also called the VERTICAL LOGIC.

2. Work Breakdown Structure: Process

SOURCE	INPUTS	TECHNIQUES	OUTPUTS	USER
Financier Organisation	Results Matrix / Project approval documents / Historical Information	Breakdown of project work	Work Breakdown Structure	Project team

Source: Project Management Institute, A guide to the Project Management Body of Knowledge (PMBOK® Guide) Sixth Edition, 2017, page 156

- The process to develop a WBS begins in the planning phase and is a useful tool to help Project teams manage the scope, because it allows them to express and show all of the work that will be required...the process to develop a WBS is straightforward, and is represented by this flow diagram.
  - The source or reason for doing a WBS is not only because it is best-practice but also because it is almost always a requirement for any development or climate funding.
  - Next are the inputs you need develop the WBS, and the most important of these is the Results Matrix as it is important to understand the logic of the Results Matrix...how and why certain activities are implemented and how these fold-up to the higher levels of the WBS. Another important input is Historical Information on similar projects or activities, having this knowledge can significantly reduce the process of understanding what needs to be done.
  - Breaking down the project into smaller work packages is the technique we will cover shortly, it is important to note that this is a team effort because the WBS will need to be detailed enough so that work can be assigned to third parties easily and can adequately monitor their progress.
  - By utilising these inputs and techniques you should be able to produce a WBS that will be used by the project team.

- The purpose of developing a WBS is to use it as a daily work tool and not as a document that is updated once a year
  Lets take a look at an example WBS.....

2. Work Breakdown Structure: Water Security Example

Objective/Purpose

Enhancing climate resilient water security in rural areas and outer islands in the Pacific

Component

National institutional arrangements for communities are enforced and strengthened

Community-based climate-induced disaster management systems are operationalized and strengthened

Access to innovative water resource management and safe water

Output/Product

Provision of safe water for communities.

Operators trained for devices and systems.

Work Packages

Scoping of need for Water treatment devices

Water treatment devices installed or retrofitted

Commissioning of Water treatment devices

Lets use the example of the Water Security project and break it down.We start from its general objective, breaking it down to its components. Now lets take one of these components And look at the outputs needed to deliver the "Access to innovative water resource management". For this example, there are two outputs needed, lets look at the "Provision of Safe Water for Communities"...and what work packages are needed to deliver this output...Remember Work Packages, are the Group of activities/tasks that are performed to create project deliverables/outputs; this is the WBS lowest level.

---

2. Work Breakdown Structure: Breaking down the activities

Work Package: Order and have loader delivered to site for the period of the construction.

Order Loader

Loader Delivery

Loader Operation

Loader Return

Loader Safe Storage

Loader Fuel supply weekly

Loader Maintenance

You and your team will then review each of the work packages to determine what activities need to be done to complete each product of the work package:...for example: Let say you need a loader for your road project.

You'll need to Order it
Have it delivered
Operate it
And Return it

you'll do this for every work package until you have a complete set of activities that will do ALL of the work of the project. A good rule of thumb is that You'll know when you've reached the adequate level of decomposition when you can easily identify the cost and duration of a work package. If not then you need to keep breaking it down.

2. Work Breakdown Structure: Summary

Official Definition

"Work Breakdown Structure (WBS): A hierarchical decomposition of the total scope of work to be carried out by the project team to accomplish the project objectives and create the required deliverables ":PMBOK® Guide (2021)

Some helpful tips
- Use deliverable language for Work packages and utilize expert knowledge and decomposition.
- WBS shows 100% of the required work to complete the project, aanything that uses project resources should be in the WBS.
- Include Project management.
- Whole team works on the WBS in a consensus based process

Here is the official definition of WBS from the Project Management Body Of knowledge Guide, we have looked at how to breakdown a project from general to specific and you have some techniques for approaching this.

Here are also some helpful tips
The process of developing the WBS is almost more important than the quality of the inputs themselves, try to make it participatory and focused on obtaining results rather than just listing activities.

3. Project Schedule: Planning a logical sequence of activities

Now that we know what work needs to be done, we need to work out in what order and how long it will take.

Did you know that on average about 60% of work planned for a project is actually executed according to that plan! What do you think is the reason 40% of work not being done according plan?.... Being overly optimistic and not identifying critical points in the schedule are common reasons.

In This section we will hear about how:
- To use the output of Step 1 (WBS) to plan project times.
- How to identify the process to create a project schedule.
  - Understand the inputs that are needed to create a timeline.
  - Understand the techniques to estimate the duration of project activities.
- To determine the schedule critical path.

3. Project Schedule: Planning a logical sequence of activities

I'm sure you are familiar with simple schedules in excel or Microsoft project and Gantt Charts, they come in many forms but any schedule by definition should represent the sequential logic of the work to be done over time . In this section we will look at some of the tools and techniques you can use to better plan project times, estimate project duration and identify the projects critical path.

3. Project Schedule: Horizontal Logic

Network Diagrams

Predecessor — Successor

Common Dependencies

Finish-to-start: Work Package B cannot begin until Work Package A has been completed

Finish-to-Finish: Work Package B cannot finish until Work Package A has been completed

Start-to-start: Work Package B cannot begin until Work Package A has been started

The first tool I'll cover is the Network diagram, this represents horizontal logic of the Work Packages (the last level of the WBS). In this logic every activity must have a PREDECESSOR and a SUCCESSOR. These are more frequently referred to as dependencies...common depencies you should think about when planning are
Finish-to-start: Work Package B cannot begin until Work Package A has been completed
Finish-to-Finish: Work Package B cannot finish until Work Package A has been completed
Start-to-start: Work Package B cannot begin until Work Package A has been started
Taking your Work Packages and converting them into a Network Diagram and thinking through the dependencies is a great tool to develop more realistic plans with better overall estimates of project duration.

Learning objectives
• To use the output of Step 1 (WBS) to plan project times.
• To identify the process to create a project schedule.
o To understand the inputs that are needed to create a timeline.
o To understand the techniques to estimate the duration of project activities.
• To determine the schedule critical path.

660

3. Project Schedule: Duration Estimation Methods for activities

Analogous Estimating: uses values, or attributes, of a previous project that are similar to the current project.

Parametric Estimating: uses statistical relationship between relevant historical data and other variables. The technique can produce higher levels of accuracy depending on the sophistication and underlying data built into the model.

Bottom-up Estimating: Estimates the lowest level available and rolls this estimate up to higher-levels of the WBS.

Three-Point Estimating: The accuracy of a single duration or cost-estimate can be improved by considering uncertainty and risk and using the estimates to define an approximate range for an activity.

Source; PMBOK® Guide (2021)

- Estimating the duration of an activity and therefore a Work Package is asking yourself "how long will it take us to get something done while everything else is happening" In the example of needing to order a loader for your road project...Ordering it this could take one hour to do, but having it delivered to site could take several weeks.

- In Project Management, estimating activity duration can be classified into four broad techniques:

1. The first is the Analagous Estimating or using experience with previous projects and activities...this would be if you had ordered a loader before and us that experience to inform your estimate of the duration.

2. The second, is Parametric Estimating, this is generally used in larger infrastructure projects where historical data or industry studies are used to estimate the duration. For example square foot estimates for construction or using well established software packages to estimate the construction duration per km of road over a given terrain.

3. The third, is bottom-up estimating, where the duration or cost cannot be estimated with a reasonable degree of confidence we break the activity down into parts that we can estimate and "roll" these estimates up into the Work-Package.

4. The final technique is called three point estimation, where the project team prepares three estimates: a Optimistic, pessimistic and a most likely estimate, then uses a simple equation to estimate the expected duration....this final method is quite useful with the amount of information we generally face with a lack of previous examples or existing data for climate projects in small island developing states so we will look at this in more detail.....

661

3. Project Schedule: Three-Point Estimation

Program Evaluation and Review Technique (PERT)

$$De = (O + 4M + P) / 6$$

M = most probable duration (realistic)
O = optimistic duration
P = pessimistic duration
De = expected duration

Example: Construction of a jetty.

$$De = (15 + 4x20 + 40) / 6$$

M = 20 days
O = 15 days
P = 40 days
De = 22.5 days

For the specific work packages and activities estimating the duration is generally where there is a bias towards being overly optimistic. One technique called the Program Evaluation and Review Technique (PERT) is a three point technique project management model designed to better analyze and represent project tasks.....this takes your estimate of the MOST LIKELY duration of the activity based on the expert knowledge of the team and the resourcces you have available. Then determining the OPTIMISTIC duration or best-case estimate of duration and then finally the PESSIMISTIC or worst case scenario.

3. Project Schedule: Pulling it all together – the Critical Path
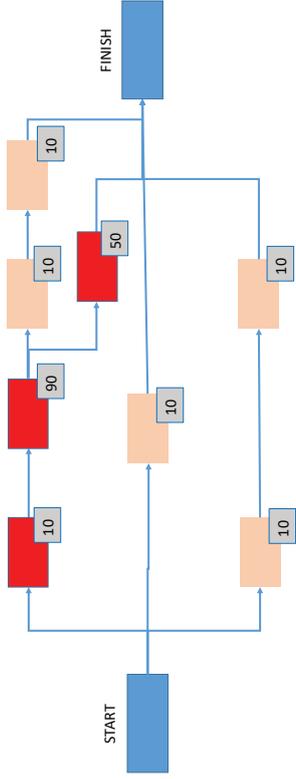
Pro TIP : Develop the network diagram and time estimates as a team .

The Network Diagram and three point estimation are great techniques to help achieve two things: first the logical progression of activities through time and second, improve the task of estimating the duration of each activity....these two things combined will enhance your project scheduling and allow you to estimate the Critical Path.

So lets build a network diagram, remember it must have a START and a FINISH. It should also represent all the Work PACKAGES in a project. We must also have the time estimates for each Work Package...in this version we are displaying the ESTIMATED DURATION for each activity that has been calculated using the three-point technique....in a detailed network diagram it can help to display the minimums and the maximum time estimates to see if there are potential other critical paths in other scenarios.

The CRITICAL PATH is the longest path in the Network Diagram and defines the length of the project.

The CRITICAL PATH lets us show which Work Packages and activities are most sensitive to time management and can also be used to show Project Sponsors what impact any last minute changes could have...and hopefully hep you persuade them

not to make any unnecessary changes.

Pro TIP : Develop the network diagram and time estimates as a team , to give yourself the best chance of capturing
The correct dependencies and leverage the teams experience with similar projects.

4. Sub-module Summary

Key concepts

All the best with breaking down your scopes and working out that sequential logice.

4. Sub-module Summary: Key concepts

Objective/Purpose

Component

Output

Deliverables

Work Packages

WBS – is the vertical logic, it breaks down the project from general to specific. With all work to be undertaken represented at the lowest level of the WBS.

Project Schedule is the sequential logic of the work to be done over time. Relationships between activities and the critical path are vital to managing your schedule.

Lets look at what we covered.

- We first covered …the Work Breakdown Structure or WBS. Where you and your project team reviewand then breakdown the project's objectives into components, outputs and Work Packages. With Work Packages making up the lowest level of the WBS and constituting all the work required for the project.
- Next we looked at the project schedule.
- This takes the work packages identified in the WBS and determines where they fit sequentially between the start and the finish of the project. This process looks at how activities are related, determining what dependencies there are between activities, what are an activities successors and predecessors.
- Common dependencies can be start-to-start, star—to-finish or finish-finish for example. Finally by including all the activities for all the work required and utilizing duration estimation techniques, such as three-point estimation, we can determine where the critical path lies, or the longest path through the network diagram, this determines the duration of the project and how sensitive the activities along the critical path are to time management.

I hope you enjoyed the sub-module and if you are interested in learning more about these aspects of project management I have included some links on the references page as well as some practice quiz questions.

Project schedule and budget

- Project budget -

Fred Siho Patison
Climate Change Finance Readiness Advisor
Pacific Climate Change Centre

Reference materials

- Project Management For Development (Free Online Course)
  - https://www.edx.org/course/project-management-for-development
- The World Bank's Open Learning Campus has a number of presentations/courses, including
  - **Project Management Essentials**
    - https://olc.worldbank.org/content/project-management-essentials-3
  - **Pacific World Bank Project Orientation**
    - https://olc.worldbank.org/content/pacific-world-bank-project-orientation

- Further reading
  - Project Management Institute
    - https://www.pmi.org/pmbok-guide-standards/practice-guides

---

CONTENTS

1. Introductions
2. What is a project budget?
3. Key elements of a project budget
4. Project budgeting process
5. Key budget items/cost categories for CC related projects
6. Cost planning (fundamental to project planning)
7. Basic skills required for project budgeting
8. Project budget, annual budget and multi-year budget (examples)
9. Conclusions

1. Introduction

This session is part of the project formation and management and is a follow to the previous presentations on fundamentals on the projects management and the session on the key items of project schedule.

The presentation will focus CC related projects with many of the formats applicable to environment and Climate change related project funding. In particular the GEF, GCF, AF and bilateral funding. The project budget in the presentation usually are all related to very basic grant type of funding as opposed to loans and other blended type of funding.

One of the key components of any project and this case CC related project is the budget. Many of you are familiar with project implementation cycle and planning processes and most critical to those processes is your budget. There is a number of key basic questions that you should keep in mind for this presentation;

1. How much funds do you have? (Total costs)
2. How may years do you have to spend the funds? (Time)
3. What is the sources of your funds? (Funding source)
4. Where I will spend the funds? (Location/Geography)
5. How do I spend the funds effectively? (Budget and Implementation Plan)
6. What measures are there to ensure I spend the funds effectively? (M&E)
7. Report on the funds spends and achieve your objective? (Reporting)

---

2. What is a project budget?

"A project budget is the total estimated cost of completing each project activity over each phase of a project. It's important as it helps set expenditure expectations and is critical in getting project approval, ensuring funds are ready at the right time, and measuring performance. It's a dynamic document, continuously monitored, reviewed, and updated throughout the project. *(Australian Institute of Project Management)"*

There are two scenarios that many of you participants will always be faced with in any project budget;

1. You are required as an individual or part of a team to formulate or review a project budget for a new project that your organization is working on with multi-lateral partners such as AF, GCF or GEF and also on bilateral projects. (A new project being designed)

2. You are hired as a project manager and/or asked to be the supervisor for the project being implemented also by AF, GCF or GEF and also on bilateral projects and have been asked to work on the work plan and budget for a project to be implemented. (A project already designed and ready for implementation)

These two scenarios will be the focus of this presentation.

The project development cycle – New projects

Source: Guidelines for Developing Project Proposals Secretariat of the Pacific Regional Environment Programme (SPREP) Asia Pacific Adaptation Network, (APAN) and Secretariat of the Pacific Community (SPC) through the Global Climate Change Alliance: Pacific Small Island States (GCCA: PSIS) project

---

3. Key elements of a project budget

For the two scenarios presented the key elements remain the same;

- Most project budgets are prepared in excel and then presented in other formats.
- The budget is usually organized based on the project logical framework from the outcome, output and activity level similar to the manner in which a work plan is organized which you should have covered in the earlier sessions.
- All project budget are time bound and has very specific focus areas.
- The basic project budget is also expected to organized into unit costs, quantity and total costs for each activity. Below is an example from the exercise.

4. Project budgeting process

A. Project Design - formulate or review a project budget for a new project

- Most multi-lateral development funding have project application templates that includes a budget template.

- You start your project design through different phase and templates for the project planning cycle and usually ends up with the budget.

- Each organization whether public or private has its own internal funding process and requirements – one must familiarize themselves with these requirements for your budgeting process.

- Usually either a 1 step or 2 step funding process, 1-step: Single Proposal, 2-step: Concept followed by Full Proposal.

- Timeframes and level of detail vary between funding sources and often depend on funds available/being requested.

- The most important element of your budgeting process for a new project is the logical framework.

Project budgeting process

B. Budget for an existing project for implementation

- Approved projects always and/or usually comes with a project budget and includes key project components such as the logical framework, theory of change, schedule and project descriptions details.

- As a project manager, one is often asked to develop an implementation plan, work plan and a budget on how a project will be implemented.

- The first step is to understand the project, its objectives, outcomes, outputs and activities and how you will go about achieving them (theory of change provides a summary).

- Understand the basic scope of the project and focus – enabling environment, policy interventions and ground implementation.

- Familiarise yourself with the basic unit costs items in the budget provided in the proposal and context in which the project will be implemented.

- Most organisations or implementing agencies have budget related guidelines.

- Where possible discuss with your donors or supervisor what the budget items means and the expectations for implementation.

5. Key budget items/cost categories for CC related projects

Many of the multi-lateral donors such as the GEF, GCF and AF templates comes with key budget items of cost categories as follows;

Budget Item/Activity	Description
Administration	Usually cover general administration costs for the project
Consultants (International and national)	This is for expert individual or organisations that are contracted to deliver certain outputs or activities for the project. International and national consultants are often distinguished for those outside of country however that varies for each organisation
Travel (International and national)	All travel for the project including land, sea and air transport should be covered under this head.
Workshop and Meetings	All workshops and meetings including catering, venue hire and any costed to host a meeting can be covered here. Each organisation may have different scopes.
Professional Service	Usually can be covered under consultants but there donors that wants to distinguish such service for specialist work that does not require a contract but through existing partnership through an MOU or MOA.
Awareness and Advocacy	Covers all cost for awareness and advocacy at all scale
Salary and Fees	If the project hires full time staff and service providers
Office Supplies	Usually covers all stationaries, furniture and any office supplies.

Key budget items/cost categories for CC related projects

Budget Item/Activity	Description
IT equipment	Covers all IT equipment for the project or in required as part of project implementation
Equipment and Materials	Usually covers other equipment or materials required for project implementation
Contingency	Usually amounts to a certain percentage of the project but it meant to cover shortfalls in the budgeted items.
Audit fees	Usually for annual audits of the project finances.
Video and Audio visual	Usually for video or audio production as part of the project communications and also delivery of the project.
Project Management fees	Usually covers all the cost for the management of the project. Many implementing agencies have certain percentage limit on PM fees.
Partners delivery fees	Most organisations charge overhead delivery fees usually around 7-10 percent of the total budget for the project.
Others (petty cash)	Community youth and women groups engagement sometimes is required and covered under petty cash for catering or labour costs.

6. Cost planning: process

1. Estimate Costs

- Refer to the **WBS**, identify what **cost items (inputs)** are required for each activity.
- Develop an approximation of the monetary resources needed to complete project work.
  - Obtain quotation, or refer to the previously estimated costs from the similar projects.
  - Watch out for units of measure for each cost item, such as person hours, person days for time measures; meters, liters, tons, kilometers for quantity measures; or lump sum in currency form.
  - Estimated costs can be rounded up or down (e.g., US$1,000 or US$990, instead of US$ 993.54), based on the size of the project.
  - Specify the acceptable range (e.g., ±10%) used in determining realistic cost estimates. Include an amount for contingencies where possible.

2. Determine Budget

- Aggregate the estimated costs of individual activities to establish **a cost baseline** against which project performance can be monitored and controlled.
- Add management reserve to the cost baseline where applicable and **project budget** is determined.

11

---

7. Basic skills required for project budgeting

- It is important that you are well versed and familiar with Microsoft excel.
- You should be able use basic addition formulae to add your costs and calculate percentages when required.
- It is a good practice to have you budget items into sub- categories at outcome and output levels. This will help you understand how much resources you are allocating to certain outcomes and outputs.
- Understanding the context and geography in which the project will be implemented and costs involved (travel costs, workshops venue, catering costs, equipment costs etc)
- Familiarizes yourself with the thematic area for the project, water, food security or hard adaptation interventions.
- Familiarize yourself with the budget guidelines for the respective implementing agency – UNDP, SPREP, UNEP, World Bank

12

---

8. Project budget, annual budgets and multi-year budget

Source: SPREP SI GCF Readiness Project Document

13

A multi-year budget – example

Source: SPREP SI GCF Readiness Project

9.Conclusion

- Please consider the following questions;

How much funds do you have? (Total costs)

How may years do you have to spend the funds? (Time)

What is the sources of your funds? (Funding source)

Where will the fund be spend? (Location/Geography)

How do I spend the funds effectively? (Budget and Implementation Plan)

What measures are there to ensure I spend the funds effectively? (M&E)

Report on the funds spent and achieve your objective? (Reporting)

- You cannot formulate a budget if you don't understand the project – project description, logical framework and theory of change
- Understand the cost item/categories and units costs for where the project will be implemented.
- The basic Microsoft excel skills is a minimum requirement to formulate a budget.
- Familiarise yourself with the budget guidelines from the donors and implementation partners.
- The best way to learn is to do it.

15

Project management

Tetsuya Yoshida
JICA Short-term Expert
Oriental Consultants Global, Co., Ltd.

References

- *Guidelines for Developing Project Proposals:Secretariat of the Pacific Regional Environment Programme (SPREP)z:Asia Pacific Adaptation Network,(APAN) and Secretariat of the Pacific Community (SPC) through the Global Climate Change Alliance: Pacific Small Island States (GCCA: PSIS) project*
- *The pacific guide to project proposal preparation for the Kyoto protocol adaptation fund;* https://www.sprep.org/attachments/Publications/CC/pacific-guide-to-project-proposal-preparation-for-kyoto-protocol-adaptation-fund.pdf
- *The Australian Institute of Project Management;* https://www.aipm.com.au/blog/the-ultimate-guide-to-project-budgets
- *Strengthening the NDA Capacity and Strategic Engagement of Solomon Islands with the Green Climate Fund;* https://www.greenclimate.fund/sites/default/files/document/readiness-proposals-solomon-islands-sprep-nda-strengthening-country-programming_1.pdf

16

1

CONTENTS

1. Project life cycle
2. Main components of project execution and management
3. Management of constraints
4. Quality management
5. Risk management and risk response

Introduction

- In planning and executing a development project including *a climate change adaptation or mitigation project*, there are many elements you have to consider in order for successful execution of the project and to avoid critical failures

- In this session, you will learn various fundamental but significant elements that you have to take into consideration in executing a project.

- Some of you may not be directly responsible in your organization for some of the elements covered in this session (especially if your role is to oversee the project and a significant portion of the project is outsourced to consultants) but learning through this session can help you plan and manage your project in a more smooth and comprehensive way.

In planning and executing a development project including *a climate change adaptation or mitigation project*, there are many elements you have to consider in order for successful implementation of the project and to avoid critical failures (e.g. fail to deliver project output that meets the quality standard or requirement, overrunning human and financial resources, delay in project operation, etc.)

In this session, you will learn some of the fundamental but significant elements that you have to take into consideration in executing and managing a project.

Some of you may not be directly responsible in your organization for some of the elements covered in this session (especially if your role is to oversee the project and a significant portion of the project is outsourced to consultants) but learning through this session can help you plan and manage your project in a more smooth and comprehensive way.

This particular training session will focus on the **Project execution or implementation phase**, which covers the tasks project will carry out based on the project management plan formulated during the project planning stage.

1. Project life cycle

A typical project, regardless of its size and complexity, can be mapped to the following project life cycle.

1. **Initiation phase**: A new project or the new phase of an existing project is defined. (see Part 3.1)
2. **Planning phase**: Objectives and scope of the work to be done is defined. It also covers all the work around planning and scheduling tasks. (see Part 3.1 for budget and schedule planning)
3. **Execution phase**: Project tasks are carried out. This is the 'delivery' part of project life cycle, where the main activity is carried out/ products are created/ services are delivered.
4. **Monitoring and controlling phase** : The work is tracked, reviewed and reported. (see Part 4.2)
5. **Closing phase** : All the tasks are finalized and the final deliverables are given to the client.

- This training session focuses on the **Execution phase.**

START

Initiation phase
Understanding project goals, deadlines, priorities, and associated risks

Planning phase
Overview of tasks and timeline needed to execute the project

Execution phase
Execute the project plan

Monitoring and performance phase
Monitor the performance of the project

Closure phase
Analyze and summarize the results

Goal Reached!

Source: www.teamdeskmag.com/blog/ 5-phase-project-management-lifecycle/

Regardless of its size and complexity, a typical project has the following 5 phases in its project life cycle.

1. **Initiation phase**: where a new project or the new phase of an existing project is defined.
2. **Planning phase**: Objectives and scope of the work is defined. Schedule and cost or project budget is also determined in this phase.
3. **Execution phase** : Project tasks or activities are carried out.
4. **Monitoring and Controlling phase** : The work is monitored, reviewed and reported.
5. **Closing phase** : All the tasks are finalized and the final deliverables are delivered to the client.

You have learned some of the fundamentals of **Initiation phase** in Module 3.1 of this training course, through learning the problem tree, objectives tree development and also a logical framework. And you also learned some key elements of Planning phase in Module 3 including project schedule planning and cost planning.

2. Components of project execution and management

1. **Quality management:** Meet the quality requirements of donors/investors by executing the quality management plan which was developed during the project planning phase.
2. **Risk management:** Implement risk response plans and strategies against the identified risks that can impact project scope, schedule and cost.
3. **Resource management:** ensure that the physical resources assigned and allocated to the project are available as planned, as well as monitor the planned versus actual utilization of resources and take corrective action as necessary.
4. **Communication management:**
   Ensure timely and appropriate collection, creation, distribution, storage, retrieval, management, and monitoring of project information.
5. **Procurement:** Select and award contracts with consultants and contractors through bid and proposal activities.
6. **Stakeholder engagement:**
   Communicate and work with stakeholders to meet their needs and expectations, address issues, and foster appropriate stakeholder involvement.
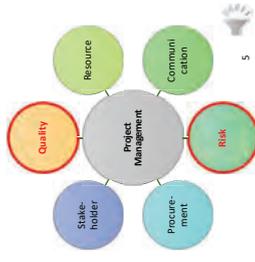
Let's look at some of the main elements or components involved in project execution and management. As you can imagine or have experienced, managing a project is a very complex task and it involves numerous factors which are oftentimes closely interrelated with each other.

There are still other elements not listed in this presentation. If you are interested in further learning, please see the reference page at the end of this presentation.

Among the 6 main components shown in this slide and the diagram, I would like to highlight 2 elements and I will explain them in detail on later slides, namely quality management and risk management, which are the important components that all stakeholders including national authorities like the participants of this training are involved throughout the project lifecycle.

Let's look at each component.

---

1. First important element **Quality management** where project manages the overall project quality by aiming to meet the quality requirements of donors/ investors by executing the quality management plan which was developed during the project planning phase, before the project execution phase.

2. Second component is **Risk management** where project carries out risk response plans and strategies against the identified risks that can impact project scope, schedule and cost or budget. Risk response plans are also formulated during the project planning stage like quality management plan.

3. Third major component is the **Resource management** in which project ensures that the physical resources given to the project are available as planned, as well as monitors the actual utilization of resources and take corrective action as necessary if they are not used effectively as planned.

4. Fourth element is **Communication management**: this is important not only inside the project management team but also communication with a wide range stakeholders such as investors/ donors, national and local government agencies, local communities, etc. In this management activity, project ensures timely and appropriate collection, creation, distribution, storage, retrieval, management, and monitoring of information related to the project.

5. Fifth component is **Procurement** and its management: where the project selects and awards various contracts with consultants and contractors through bid and proposal activities.

6. Last main component is **Stakeholder engagement**: where the project communicates and works with stakeholders to meet their needs and expectations, and advance stakeholder involvement.

the *schedule* may be extended to deliver project outputs.

These three elements have to be carefully managed by the project in order to deliver quality project outputs.

In **scope management**, the project has to ensure the defined scope and project activities are duly performed. And if there is any change in the scope, the project has to ensure that it brings necessary resources and inputs. Project schedule and cost may also have to be adjusted for the changed scope.

Schedule management involves continuous monitoring of the project status, update and manage changes in the schedule. When project schedule is changed, timing of producing deliverables may also have to be changed.

Cost control requires also continuous management and control of costs so that the project can be completed within the approved budget.

Please be reminded that minor changes in the above elements are usually managed by project team, such as small change in project scope that doesn't alter the project output, schedule change of activities, change in costs that do not exceed the project budget. But major change (whether increase or decrease) of above elements which affect the project outputs or changes that require extension of project duration or ceiling of project budget, have to be formally authorized by investors/ donors.

3. Management of constraints

Project **scope, schedule, cost/ budget** are sometimes called 'project management triangle' or 'triple constraints.' These elements are closely related and are crucial determinant of project success among other factors.

- The relationship among these elements is such that if any one factor changes, at least one other factor is likely to be affected.
- For example, if the *scope* is increased, often the *budget* needs to be increased also to add additional resources to complete the increased amount of work in the original schedule. If a *budget* increase is not possible, the *schedule* may be extended to deliver project outputs.

Scope management: Ensure all requested changes and recommended corrective or preventive actions are processed.

Schedule management: Monitor the status of the project to update the project schedule and manage changes to the schedule. Timing of producing deliverables may have to be revised.

Cost control: Manage and control costs so that the project can be completed within the approved budget.

Any change (increase or decrease) of above elements have to be formally authorized by investors/ donors.

Scope / Quality / Budget/ Cost / Schedule
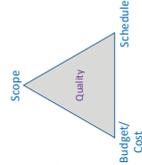
You have learned in the previous training sessions how to set the project scope, project schedule and project budget. These three factors are also very important elements of project management in addition to what you saw in the previous slide. These three factors are directly related to the quality of the project deliverables and project success.

Project **scope, schedule, cost/ budget** are sometimes called 'project management triangle' or 'triple constraints.'

These elements are crucial for project success, among other factors (such as customer satisfaction and productive stakeholder engagement).

- The relationship among these elements is such that if any one factor changes, at least one other factor is likely to be affected.
- For example, if the *scope* is increased, often the *budget* needs to be increased also for additional resources to complete the increased amount of work in the original project duration. If a *budget* increase is not possible,

the cost and schedule management as well. The cost of *preventing* mistakes is generally much less than the cost of *correcting* mistakes when they are found by inspection.

The plan-do-check-act (or PDCA) cycle is commonly applied for quality management and continuous improvement of project quality.

Also it is always better and efficient to check and monitor the quality throughout the project rather than just checking the quality near the end of the project.

4. Quality management

- **Quality Management Plan** identifies quality requirements and/or standards for the project and its deliverables, and documents how the project will demonstrate compliance with quality requirements or standards by donors/ sponsors.
- Determine who, when and how the quality of deliverables/ documents are checked.
- *Prevention* is preferred over *correction* or *inspection*. The cost of *preventing* mistakes is generally much less than the cost of *correcting* mistakes when they are found by inspection or during usage.
- The plan-do-check-act (PDCA) cycle is commonly applied for quality improvement.
- Frequent quality review steps throughout the project can be more effective and efficient rather than quality check toward the end of the project.

From this slide, I would like to explain a little bit more in detail about important elements of project management.

As for the Quality management, you need to ensure that the project delivers not just outputs but you need to generate and deliver **quality** outputs that matches the requirements of investors and needs of stakeholders. So project has to first have a quality management plan. Many organizations and companies have quality management standard and procedures such as ISO-based system, and you can imagine similar system is applied to the project level.

In order to make this quality management plan, what the project team has to do first is to fully understand what is required by sponsors and donors. Then determine who, when and how the quality of deliverables/ documents are checked.

It is important to remember that *Prevention* is preferred over *correction* of mistakes.
This is not only from the perspective of maintaining the quality but also from

5. Risk management (1)

- A **risk** is an uncertain event or condition that, if it occurs, has a *positive or negative* effect on one or more project objectives.
- When unmanaged, risks have the potential to cause the project to deviate from the plan and fail to achieve the defined project objectives.
- The project should exploit or enhance positive risks (**opportunities**) while avoiding or mitigating negative risks (**threats**).
  - Opportunities that are captured can lead to benefits such as reduced time and cost, improved performance, or reputation.
  - Unmanaged threats may result in issues or problems such as delay, cost overruns, performance shortfall, or loss of reputation.
- Risks vary depending on nature, size and complexity of the project.
- Risks will continue to emerge during the lifetime of the project. Risk should also be monitored and managed as the project progresses to ensure that the project stays on track and emergent risks are addressed.

4

In the next three slides, I am going to explain about risk management and risk response.

- A **risk** is defined as an uncertain event or condition that, if it occurs, has a *positive or negative* effect on one or more project objectives.
- If you do not manage properly, risks can cause the project to deviate from the plan and fail to achieve the project objectives. The effectiveness of risk management is directly related to project success.
- Basic strategy of the project is you exploit positive risks (**opportunities**) and avoid or mitigate/ minimize negative risks (**threats**).
  - If you can capture Opportunities then you can gain various types of benefits for the project such as reduced time and cost, improved performance, or increased reputation.
  - If you do not manage threats, they could result in delay, cost overruns, performance shortfall, or loss of reputation.

5

5. Risk management (2)

1. Identify Risks
   - Identify individual project risks and document their characteristics.
   - Identify timing, risk category, role and responsibility, and funding for risk management.
   - Document identified risk, potential risk owners, and potential risk response.

| External risk | Extreme weather events, political or economic instability, exchange rate, lack of support from government, legal and institutional limitations, lack of capability by contractors/ consultants etc. |
| Internal risk | Insufficient project planning, lack of capability by project management team, lack of interests and support by communities, limited communication among internal personnel, etc. |

2. Perform Qualitative Risk Analysis
   - Assesse the priority of identified individual project risks using their probability of occurrence, the corresponding impact on project objectives if the risks occur.
   - Assess risk in terms of urgency, proximity, dormancy, manageability, controllability, detectability, connectivity, strategic impact.

5

So how do we manage the project risks? There are 3 main steps and it is ideal to carry out the first 2 steps during the project planning phase and the third step during the project execution phase.

First step is to understand what kind of risks could occur in your project and record them.
You also have to examine when they could happen during the project, what or who will be causing those risks.

You can see risks can be generally divided into external risks and internal risks.
External risks are something that occur outside of the project boundary or power, such as weather, politics and economics, legal issue and so on.
While internal risks happen within the project boundary such as lack of capacity or support, communication.

Second step you need to take for risk management is to conduct qualitative

risk analysis. Some projects especially big projects go through quantitative risk analysis by using computer software to analyze project cost, probability and sensitivity.

In the qualitative analysis, you set which identified risks have the highest chance to occur, and which ones have the biggest impact to project objectives.

Urgency: The period of time within which a response to the risk is to be implemented in order to be effective. A short period indicates high urgency.
Proximity: The period of time before the risk might have an impact on one or more project objectives. A short period indicates high proximity.
Dormancy. The period of time that may elapse after a risk has occurred before its impact is discovered. A short period indicates low dormancy.
Manageability. The ease with which the risk owner (or owning organization) can manage the occurrence or impact of a risk. Where management is easy, manageability is high.
Controllability. The degree to which the risk owner (or owning organization) is able to control the risk's outcome. Where the outcome can be easily controlled, controllability is high.
Detectability. The ease with which the results of the risk occurring, or being about to occur, can be detected and recognized. Where the risk occurrence can be detected easily, detectability is high.
Connectivity. The extent to which the risk is related to other individual project risks. Where a risk is connected to many other risks, connectivity is high.
Strategic impact. The potential for the risk to have a positive or negative effect on the organization's strategic goals. Where the risk has a major effect on strategic goals, strategic impact is high.
Propinquity. The degree to which a risk is perceived to matter by one or more stakeholders. Where a risk is perceived as very significant, propinquity is high.

5. Risk management (3)

3. Risk Responses
- Select response strategies and agree on actions how to treat individual project risks.
- Effective and appropriate risk responses can minimize individual threats, maximize individual opportunities, and reduce overall project risk exposure.
- Risk responses should be appropriate for the significance of the risk, cost-effective in meeting the challenge, realistic within the project context, agreed upon by all parties involved.
- Contingency reserve can be used to cope with threats.

Threats	Opportunities
Avoid: eliminate the threat or protect the project from its impact. May involve changing the objective in jeopardy in order to eliminate the threat.	**Exploit:** capture the benefit associated with a particular opportunity. Assign more resources or introduce new technology to reduce cost/time.
Transfer: shift ownership of a threat to a third party through the use of insurance, performance bonds, warranties, guarantees, etc.	**Share:** transfer ownership of an opportunity to a third party through special-purpose companies, joint ventures
Mitigate: reduce the probability of occurrence and/or impact of a threat. Early mitigation action is often more effective than trying to repair the damage after the threat has occurred.	**Enhance:** increase the probability and/or impact of an opportunity. Early enhancement action is often more effective than trying to improve the benefit after the opportunity has occurred.
Accept: acknowledge the existence of a threat, but no proactive action is taken. Appropriate for low-priority threats. A contingency reserve is established.	**Accept:** acknowledge its existence but no proactive action is taken. Appropriate for low-priority opportunities.
Escalate: If a threat is outside the scope of the project. Escalated risks are not managed on the project level.	**Escalate:** If an opportunity is outside the scope of the project. Escalated opportunities are not managed on the project level.

6

The last step is to plan and execute the response strategy for the identified risks.

Again, principle strategy projects should take is to minimize negative and maximize opportunities, and also reduce overall exposure to project risks.

When you think about response measures, you have to consider depending on the significance of the particular risk, cost-effectiveness also.
We saw earlier in the cost planning section "a contingency reserve." And this cost is often used for these risk responses.

The table here is showing the 5 categories of strategies you can take when you face threats or opportunities.
Again, **avoiding** threats and **exploiting** or capturing opportunities are listed as typical solutions. There are also other options such as **transfer** threats to the third party this is usually done by using insurance or guarantees.
Opportunities can be also **transferred** or shared with third party depending on

676

the available internal resource and project scope.

Other options for threats are **mitigate** the chance of occurrence of the threat, and **accept** the threat if the impact is not so big but you may need to use money from contingency reserve.

Also alternative strategies for opportunities include **enhance** the opportunities by increasing a good impact on the project, and also **accept** the opportunity but the project does not take any action usually because the positive impact of that opportunity is not so significant.

References

- Japan International Cooperation Agency, *"Project Management Handbook,"* 2007.
- Project Management Institute, Inc., *A Guide to the Project Management Body of Knowledge (PMBOK Guide) Sixth edition,* 2017.

8

**Key Terminologies
in Monitoring & Evaluation**

Linda Vaike
Acting Project Team Leader & M&E Coordinator
PACRES-USP Component, USP

Hi and welcome to this session. My name is Linda Vaike and I am the Acting Project Team Leader and Monitoring and Evaluation Coordinator for PACRES – USP Component. In this session, I will introduce you to the key terminologies used in Monitoring and Evaluation or M&E for short.

Objectives

At the end of this session, you will be able to:

- Identify and define key terminologies used in M&E
- Describe the application of the key terminologies in projects
- Understand when to develop and apply the key terminologies in the lifecycle of projects
- Provide examples of key terminologies as part of project design and execution

At the end of this session, you are expected to:
- Identify and define key terminologies used in M&E
- Describe the application of the key terminologies as they are used in projects
- Understand when to develop and apply the key terminologies in the lifecycle of projects, and
- Provide examples of these key terminologies as part of the project design and execution
As a heads-up to you all, there will be two short quizzes at the end of this session. This is as a knowledge recap to what you have learned from this session.

Key Terminologies

- Indicators
- Baseline
- Targets
- Data Sources/Means of Verification
- Assumptions
- Outputs
- Outcomes
- Impact
- Logical Framework
- M&E Plan

Listed in the slide in front of you you are the key terminologies that we will go through in this session. These key terminologies include:
- Indicators
- Baseline
- Targets
- Data Sources which is often interchangeably used with Means of Verification
- Assumptions
- Outputs
- Outcomes
- Impact
- Logical Framework
- M&E Plan

For those that are familiar with projects you would have come across or dealt with these terminologies on a regular basis. For those that are new to projects, it is important that you understand what these terminologies mean, the stages in a project cycle that each of these terminologies are developed and how they are being applied. In this session, we will focus mainly on the definitions of these key terminologies. Detailed application of them will be covered in other sessions.

Indicators

Indicator: *A quantitative or qualitative measure that provides a simple and reliable means to assess results.*

- **Quantitative Indicators:** Verifiable indicators that can be measured numerically.
- **Qualitative Indicators:** Verifiable indicators that use categories that can be ranked or compared to assess changes such as judgements, opinion, perceptions or attitude. This can include statements that are answered with a yes or no.

Indicators are used to track progress towards project targets, which should confirm to the SMART Principles: **S**pecific, **M**easurable, **A**chievable, **R**ealistic and **T**ime-Bound.

Examples:

Quantitative Indicator: Number of people trained in climate change adaptation.

Qualitative Indicator: Level of participation of women in policy development spaces.

When do you develop Project Indicators?

Project Design Phase

So, what are indicators?
These can be quantitative or qualitative and are measures that provide simple and reliable means to assess results of projects. Indicators are important for tracking progress towards project targets. We will define targets later in this session.

Quantitative Indicators are verifiable indicators that can be measured numerically or in numbers. This is the most often used indicators in projects.
Qualitative Indicators, on the other hand, are verifiable indicators that use categories that can be ranked or compared to assess changes caused by a project. These are mostly descriptive observations and can include judgements, opinion, perceptions or attitude, and can include statements that are answered with a yes or no.

When we design indicators, we must ensure that they confirm to the SMART Principles. This means, Indicators have to be Specific, Measurable, Achievable, Realistic and Time-Bound.

An example of a quantitative indicator would be: "number of people trained OR number of water tanks installed as an adaptation intervention".
An example of a qualitative indicator would be the "level of participation of women in

policy decision making spaces".

Indicators are developed at the Project Design Phase.

Baseline

Baseline: The status of the indicator at the beginning of a programme or project that acts as a reference point against which progress, or achievements can be assessed.

- The baseline provides a reference point with which to compare future changes (Fayolle, V. and Dhanjal, M. 2020)
- Starting point of your project indicators – present situation.
- Expressed as a value or condition.
- Important for monitoring and evaluating project targets.

Examples:
0 people trained.
No participation of women in policy development spaces.

When do you develop baselines?
Project Design Phase

Baselines refer to the status of the indicator at the beginning of a programme or project that acts as a reference point against which progress, or achievements can be assessed. In other words, once you decide on the indicators of a project, the baseline would be the status quo, starting point or present situation before you start implementing your project. Baselines are normally expressed as a value or condition

In the examples that we looked at under indicators, examples of the baseline would be that at the starting stage, " "zero" people were trained OR in the example of the qualitative indicator, the baseline would be that there is 'no' participation of women in policy making spaces.

Like Indicators, the baseline is determined at the project design phase. This, however, have to validated at the Inception Phase of a project or before you actually begin implementation.

Without having clear baselines, you will not have a reference point to measure outputs of the project you are implementing. Baselines are therefore crucial for M&E purposes and particularly for measuring project targets.

Targets

Target: Specifies a particular value that an indicator should reach by a specific date in the future.

- Commitments set by project proponents.
- Guide and reference to what the project intends to achieve.
- Mid-way Targets, Final Targets – dependent on reporting requirements.
- Quantitative and qualitative – dependent on what indicator is being measured.

Examples:

20 people trained in climate change adaptation by the end of the project.

Increased level of participation of women in policy development spaces.

When do you develop targets?

Final Targets – Project Design Phase

Mid-way Targets – Project Design Phase and/or annually as part of your workplan.

In the previous slide, I have mentioned why Indicators and Baselines are important to measure "Targets" but what are targets? Well, targets are what projects set out to achieve at a specific date in the future. This can be at the end of a project, mid-way into project implementation or annually – depending on the reporting requirements or when you would likely expect to see some outputs or outcomes as a direct result of the project.

Targets can be quantitative or qualitative, depending on what indicator is being measured. Again, from our example, we said the quantitative indicator is the "number of people trained", the target would then be that *'***20** people are trained at the end of the project'. The same link can be seen with the qualitative example. This should already tell you that there is a direct link between the indicators and the targets.

While overall targets are developed at the project design phase, some projects set targets to be achieved mid-way through project implementation. Targets however should be checked throughout implementation, and this is why, as project implementors, it is a standard procedure to set targets as part of the project's yearly workplan.

Data Sources/Means of Verification

Data Sources: refers to the sources of data/information that will be used to monitor targets against project indicators.

Examples:

Project evaluations: quarterly, annual, mid-term and terminal evaluation reports.

Stakeholder interviews and surveys.

Meeting minutes and conference/workshop/training reports.

Communications & Visibility products.

When do you develop Data Sources?

Project Design Phase

Data Sources is another key terminology used in M&E. This can sometimes be interchangeably used with Means of Verification, although some projects have clear distinctions between the two.

Data sources refer to the sources of data/information that will be used to monitor targets against project indicators. Data sources is normally what projects would use to prove that a specific intervention has happened. Examples of data sources include:
- Project Reports such as quarterly, mid-term or terminal evaluation reports.
- Stakeholder interviews and surveys
- Meeting minutes, conference/workshop/training reports
- Communications & visibility products

While the expected list data sources are defined at the project design phase, the sources of information should not be prescriptive as new data sources may be generated throughout project implementation.

the project. The occurrence of a natural disaster would significantly affect project implementation.

Since assumptions can turn into risks, they have to be consistently monitored and managed well to avoid becoming risks.
Project assumptions are developed at the project design phase!

Assumptions

Assumptions: Significant external factors or conditions that need to be present for the realization of intended results but are beyond the influence of the project and its partners.

Formulation of assumptions are based on:
- Events/circumstances that are expected to occur during the project lifetime.
- Beliefs based on previous experiences and available information.

Assumptions are never certain.

Assumptions are often positively formulated *risks*.

Examples:
Government receptive of the project.
No natural disasters.

When do you develop Project Assumptions?
Project Design Phase.

Assumptions are: Significant external factors or conditions that need to be present for the realization of intended results but are beyond the influence of the project and its partners. Assumptions are often positively formulated risks.

Those involved in projects often formulate assumptions based on events or circumstances that must be in place for a project to be successful. This may be based on experiences and circumstances or events that they have come across. Assumptions may also be based on beliefs and what people already know or the information that is available to you. Most importantly, assumptions are often positively formulated risks. Now I had the word 'risks' in bold because even though assumptions are positive, if circumstances do not follow your assumptions, they become "risks" to project implementation and can cause significant delays in project implementation and in some cases, total project failure.

Examples of assumptions could be:
- That there is full government support to implement the project. Without this positive support from the government, the project will face delays in implementation or worst, fail.
- Another example would be that there is no natural disasters during the lifetime of

Outputs

Outputs: Results achieved at the project level. Outputs are project deliverables.

- A new product and/or services
- Gains in knowledge, awareness and abilities of the intended beneficiaries

Outputs gives proof that an activity has happened as a direct result of the programme/project.

Important for M&E: monitored on a regular basis to ensure project targets are met.

Examples:
15 people trained in climate change adaptation
Greater participation of women in policy development spaces

Outputs are results achieved at the project level. They can be seen as the project deliverables.

Outputs can include new product and/or services made available by the project, and/or gains in knowledge, abilities and awareness of the intended beneficiaries.

When a project produces a new product or an output, for example, a community development plan, for someone doing M&E, this output gives proof that the project was able to deliver a community development plan.

Going back to our previous example, the number of people trained is a direct measure of the output of a project. This is the same as when we see increased women participation in policy development spaces. Unlike the target where we aim to train certain number of people, an output measures the actual number of people trained after a training program.

Outputs are crucial for ongoing monitoring as they tell the project funders and stakeholders what achievements have resulted from the project.

Outcomes

Outcomes: Changes in behavior or condition that reflect a positive impact to the intended beneficiaries.

- Uptake, adoption or application of an output.

Note:
- activities or processes is not an outcomes. E.g., running a training is NOT an outcome. The application of the knowledge gained from the training IS an outcome.
- A successful project is one that delivers positive outcomes and not just outputs.
- Specific, measurable and meaningful.

Examples:

Output	Outcome
20 people trained in climate change adaptation.	Increased knowledge and awareness of climate change adaptation.
Increased participation of women in policy development spaces.	Increased gender considerations in community development plans.
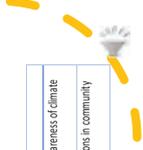
Outcomes are changes in behavior or condition that reflects a positive impact to the intended beneficiaries. Once an output is achieved, the uptake, adoption or application of the output is the outcome. While you try to think this through, there are a few things to note:

First, activities or processes are not outcomes. Conducting a training is NOT an outcome but an output. The application of what was covered in the training or the knowledge gained IS the outcome.

Second, as project implementors we have to always ensure that outputs of the project will lead to positive outcomes and finally, the outcomes should be that we can clearly say that they are a result of the project, can be measured and are indeed meaningful to the context in which the project is implementing in.

I have provided the examples we used throughout this session in the table on the slide to help you further understand the difference between output and outcomes. Another important note, if your project is not delivering outcomes, it is a failed project. In saying this, some outcomes take time to realize, sometimes after the project has ended.

Impact

Impact: The anticipated end results or long-term outcomes of a project.

Long-term benefits that are intended or anticipated from a project.

Examples:
To build the capacity of local communities to be able to adapt to the long-term impacts of climate change and build resilient communities.

When do determine impact?
Project Design Phase.

The next key terminology on our list is 'impacts'. Impacts refer to the anticipated end results or long-term outcomes of a project. In other words, these are intended benefits that we would want to see out of a project.

In the example that we used throughout this session, from the training conducted and the increased level of anticipation of women in policy development spaces, the impact or long-term benefit would be to build the capacity of local communities to be able to adapt to the long-term impacts of climate change and build resilient communities. Here you would notice that we are no longer very specific but are envisioning the impact of training and involvement of women to the wider societal positive change.

Again, the impact is determined at the project design phase.

Logical Framework (log frame)

- A tool for summarizing a project's intended results (UNEP 2020).
- A tool for improving the planning, implementation, management, monitoring and evaluation of projects (Department for International Development of the United Kingdom 2022).
- Links goals and objectives to project interventions.
- Used as a basis for M&E and programme/project management.

The log frame brings together all the key terminologies we have defined in the previous slides in a succinct and logical summary.

Now that we have defined those key terminologies, we now look at Logical Framework or logframe for short.

The logframe serves a lot of purposes including:
- Improving planning, implementation, management and most importantly M&E,
- It links goals and objectives of the project to the types of interventions.
- Used as a basis for M&E and project management

The log frame brings together all the key terminologies we have defined in the previous slides in a succinct and logical summary.

Example of Logical Framework

Indicators	Baselines	Targets	Data Sources	Assumptions
1-Number of People Trained 2-Level of participation of women in policy development spaces.	1-No people trained 2- No level of participation of women in policy development spaces.	1- 20 people trained at the end of the project 2- Increased level of participation of women in policy development spaces	• Project evaluation reports. • Stakeholder interviews and surveys. • Meeting minutes • Conference, workshop, training reports. • Communications & Visibility products.	• Government receptive of the project. • No natural disasters.

Here is a simple example of a Logframe that illustrates the linkages between some of the key terminologies we have covered so far. I used this simple example to illustrate the logical flow. Note that not all projects will follow exactly the same template I have in the example but the important thing to note is that you will see the relationship and linkages between Indicators, Baselines, Targets, Data Sources and Assumptions. This direct relationship extends to the project goals, outcomes, impacts which is covered under another session in this lecture series.

M&E Plan

M&E Plans: Details the project/programme objectives and actions/interventions and procedures that will be carried out to meet the objectives. All projects should have a M&E plan.

An M&E Plan *generally* includes the following:

• Anticipated relationships between activities, outputs, and outcomes
• Baselines
• Means verification: list of data sources
• Methodological approach/data collection plan
• Budget estimates to conduct the M&E Plan: as a general rule, 5-10% of a project budget should be allocated for M&E.
• Plan for dissemination and utilization of information obtained through M&E process.

M&E Plans and its execution MUST take into account ethical considerations!

M&E Plans are living documents that have to be monitored, reviewed and revised when needed.

Now, lets talk a bit about M&E Plans. All Projects should have a M&E Plan. A M&E Plan details the project/programme objectives and actions/interventions and procedures that will be carried out to meet the objectives.
An M&E Plan generally includes the following:

• Anticipated relationships between activities, outputs, and outcomes
• Baselines
• Data sources
• Methodological approach/data collection plan (e.g; what data to be collected, when, how and by whom; how data will be analyzed/interpreted and reporting frequency)
• Budget estimates to conduct the M&E Plan: as a general rule, 5-10% of a project budget should be allocated for M&E.
• Plan for dissemination and utilization of information obtained through M&E process.

M&E Plans and its execution MUST take into account ethical considerations! In other words, the M&E plan should be developed in such a way that its execution does not cause any harm to the environment or people.

Finally, M&E plans should be living documents that you can monitor and change from time to time when the need arises.

Supplementary Materials

- Green Climate Fund Proposal Toolkit 2020: Toolkit to develop a project proposal for GCF: https://cdkn.org/sites/default/files/files/GCF-Funding-Proposal-Toolkit-2020.pdf

- The Logical Framework: https://www.intrac.org/wpcms/wp-content/uploads/2017/01/The-Logical-Framework.pdf

- Special Programme Monitoring, Evaluation & Learning Toolkit: https://wedocs.unep.org/bitstream/handle/20.500.11822/35799/SPMELT.pdf

- Monitoring, Evaluation and Learning Strategy and Action Plan: https://wedocs.unep.org/bitstream/handle/20.500.11822/35798/MELSAP.pdf

Here is a list of supplementary resources that you can look up if you want to read more on the key terminologies we have discussed in this session.

As a recap to what was covered in this session, please attempt the quizzes in the next few slides.

Slide 1

CBCRP-PCCC Virtual Training Course

Understanding Access to Climate Finance: Part 3 & 4: Project planning and management

Government of Samoa, SPREP, and JICA

Part 4. Project execution, monitoring and evaluation

4.2. Monitoring and Evaluation: from basics to practice

4.2.2 Developing an M&E Plan for a climate proposal

Christine Serreyn | Climate Finance Advisor
Global Green Growth Institute
Christine.Serreyn@gggi.org

Hello and welcome to part 4: project execution monitoring and evaluation chapter 4.2 monitoring and evaluation: from basics to practice. My name is Christine Serreyn and I am a Climate Finance Advisor for the Global Green Growth Institute, based in the Pacific.

1

Slide 2

CONTENT

1. What makes a good M&E Plan
2. Six steps to develop a Monitoring Plan and Best Practice
3. Key elements of an Evaluation Plan and Types of Evaluation
4. Funders' M&E requirements
5. M&E Reporting
6. M&E Learning

This presentation will cover the practical steps to develop an M&E plan, starting with the first and foremost important question 'what makes a good M&E Plan'. We will then move onto six steps to develop a monitoring plan and some best practice advice. The second part of the presentation will talk about the key elements for developing an evaluation plan and different types of evaluations. With climate finance proposals in mind, we will also talk about the M&E requirements of different climate funding organisations. The presentation will finish with an overview of M&E Reporting and touch on the ultimate purpose of M&E activities: Learning and Knowledge Management.

2

A good M&E Plan…

- A good M&E Plan provides assurance to funders and project stakeholders that resources and processes are in place to monitor the project's progress, to track its results and to assess whether it will be able to achieve its long-term objectives and goals.

- Monitoring refers to the activities that take place to collect and gather project data and information over the course of the project. For example, are we training the number of people we planned to train? Are the people in the training learning the skills we planned for them to learn? A monitoring plan is connected to the activities, outputs and outcomes of the project.

- This monitoring data will be used to determine (evaluate) the overall impact and/or merit of the project and its approach. Evaluation focuses on broad questions: for example, was the project's approach appropriate to address the problem? Has the project improved livelihoods and well-being in the community?

- In an M&E Plan, funders want to know answers to the following questions:
  - Is the M&E plan feasible/realistic?
  - Which monitoring, evaluation, and learning methods and approaches will be applied to the project
  - Who is responsible for monitoring, evaluation, and learning for this project?

What makes a good monitoring and evaluation plan: a good M&E plan provides assurance to funders and project stakeholders that resources and processes are in place to monitor the project's progress, to track the project's results and to assess whether the project will be able to achieve its long-term objectives and goals.

To recap, monitoring refers to the activities that take place in a project to collect and gather project data and information over the course of the project and is concerned with such as: are we training the number of people we plan to train? Or, are people learning the skills we planned for them to learn? A monitoring plan is connected to the activities, the outputs and outcomes of the project. This monitoring information will then be used to determine or evaluate the overall impact and merit of the project. Evaluation (which follows on from monitoring) focuses on more broad questions: was the project's approach appropriate to address the problem? Has the project improved livelihoods and well-being in the community? These are big questions that evaluation aims to answer by analysing and verifying the monitoring data that was collected over the course of the project.

When you develop an M&E Plan, funders are looking for answers to the following questions: is the M&E plan feasible? Is it realistic? Can the monitoring information be gathered in time and within budget? They want to know which monitoring, evaluation and learning methods and approaches will be applied to the project. And who is responsible for monitoring and evaluation and often also, learning, for this project We will talk about roles and responsibilities later in the presentation.

Step by step guide: Monitoring Plan

MONITORING PLAN

1. Preparing the Monitoring plan (templates)
2. Choosing the indicators
3. Defining the indicators
4. Measuring baseline & target
5. Data collection, frequency and resources
6. Monitoring arrangements

Over the next few slides, we will take you through a step by step guide to develop a monitoring plan. There are six key steps: the first step is the preparation of the monitoring plan and the usefulness of monitoring templates, the second and third step focus on the indicators, choosing and defining the indicators. The fourth step is about measuring the baseline and target. The fifth one outlines the specifics of data sources, data collection, frequency and resources required and the sixth and final step covers the monitoring arrangements or M&E roles & responsibilities.

Step by step guide: 1. Preparing the Monitoring Plan

- The table below is an example of a standard template for a Monitoring plan.
- A good starting point for filling in the monitoring plan is the Theory of Change and/or the logical framework, because the monitoring plan should be clearly linked to the activities that will be implemented by the project.

Desired Result	Performance Indicator	Data Source	Data Collection Method	Responsible Owner	Frequency	Budget
Goals	Goal Indicator 1 Goal Indicator 2 etc					
Outcomes	Outcome Indicator 1 Outcome Indicator 2 etc					
Outputs	Output Indicator 1 Output Indicator 2 Etc.					

the first step is the preparation of the monitoring plan and the usefulness of templates. When you have to develop a monitoring plan for a project and you don't know yet which funding organization will fund your project, it is very useful to start with a standard template which can be tailored and elaborated on as the project develops. If however you know which funding organization will fund your project, it is highly recommended to find out the funders' specific M&E templates and information requirements. Often funding organisations provide detailed guidance to complete the templates.

The table below is an example of a standard template for a monitoring plan. In the first row from left to right, we start with the 'desired results', the performance indicators, data sources, data collection method, responsible owner, frequency and budget. A good starting point for filling in a monitoring plan is to start with the first column on the left: to complete this column review the project's theory of change or the logical framework because the monitoring plan should be clearly linked to the activities that will be implemented by the project. As you can see here, first we start with the goals, then outcomes then outputs. Each goal can be broken down into several 'goal indicators' etc.

5

Step by step guide: 2. Choosing the indicators

- The key to good indicators is credibility – not volume of data or precision in measurement.
- The fundamental challenge with indicators is to meaningfully capture key changes. This is accomplished by combining what is substantively valid with what is practically possible to monitor.
  - **Impact indicators**, which provide a broad picture of whether the objectives or goals are actually occurring (long term project results)
    - Example: the Human Development Index (HDI)
  - **Outcome indicators**, which assess progress against specified outcomes (medium-term project results)
    - Example: An outcome indicator for an advocacy activity aimed at policy change in governance institutions may include observing parliamentary passage of a desirable legal change and observing if the new law is backed up by an allocation of financial resources by a certain date.
  - **Output indicators**, which assess progress against specific project activities (immediate project results)
    - Example: For the activity "training of educators", an output indicator could be created by stating the objective and a target such as "50 teachers trained by end 2023".

Indicators are signposts of change along the path to development. Indicators are what we observe in order to verify whether – or to what extent – it is true that progress is being made towards our goals, which define what we want to achieve. The key to identifying good indicators is credibility – not volume of data or precision in measurement. The fundamental challenge with indicators is to meaningfully capture key changes. This is accomplished by combining what is substantively valid with what is practically possible to monitor. Impact indicators are indicators which provide a broad picture of whether the objectives or goals are actually occurring; these measure the long term project results. For example, the Human Development Index (HDI) provides a single index measure to capture three key dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living. In order to measure the index, it combines four major indicators: life expectancy at birth, expected years of schooling for children, mean years of schooling for adults, and Gross National Income per capita for standard of living.

Outcome indicators are indicators which assess progress against specified outcomes. These measure the medium term project results and with medium term we mean between two to four years. For example an outcome indicator for an advocacy activity aimed at policy change in governance institutions may include observing parliamentary passage of a desirable legal change and observing if the new law is backed up by allocation of financial resources by a certain date.

Output indicators are indicators which assess progress against specific project activities so these are the immediate project results. For example for the activity training of educators an output indicator could be created by stating the objective and a target such as 'fifty teachers trained by end 2023'.

6

Step by step guide: 3. Defining SMART indicators

Specific
- Is it clear exactly what is being measured?
- Has the appropriate level of disaggregation been specified?
- Is the indicator specific enough to measure progress?

Measurable
- Are changes objectively verifiable?
- Will the indicator show desirable change?
- Is it a reliable and clear measure of results?

Relevant
- Is the indicator relevant to the intended outputs and outcome?
- Is the indicator specifically related to the activity?

Attainable
- Is the indicator realistic?
- Are the changes achievable?
- Is there a credible link between outputs, contributions of stakeholders and outcome?

Timebound / Trackable
- Timebound: within a set timeframe
- Is data actually available at a reasonable cost and effort?
- Are data sources known?

Step 3 is about defining SMART indicators: Specific, Measurable, Attainable, Relevant and Timebound. In the boxes on this slide are some questions that can help to assess whether the indicators that have been identified are in fact appropriate. For example: to assess whether an indicator is specific enough, ask yourself or your stakeholders: is it clear what is being measured? Is the indicator specific enough to measure progress? I won't go through each set of questions but keep these boxes handy when you are identifying indicators as they may help you to make sense of monitoring data. On a final note, when defining indicators, it is important to keep in mind that if the wrong thing is measured, or if it is measured in the wrong way, the information may be misleading, and the quality of decisions based on this data could be affected. However, be practical and sensible and keep in mind that the process of selecting indicators is an iterative process best developed through brainstorming, assessments, and reviews with stakeholders.

7

To illustrate: the relationship between indicators

Result Area	Water Supply	Women's empowerment	Environment	Human Rights
Goal	Reduction in ill health Reduction in mortality	Improved economic control, choice, and social status	Retention or increase in forest areas	Transparent and accountable state behaviour in human rights with reduction in political arrests
Outcome	The number of beneficiaries with sustained availability of clean water for domestic use	Percentage of women with increased disposable income, expanding their options towards diverse social and economic roles	New areas reforested and sustainable agriculture practices applied Improved economic opportunities for isolated communities	Greater financial allocation by government to monitor and address human rights
Outputs	Number and type of water wells installed	Number of loans provided to women's groups and repaid as agreed	Number of species planted and surviving	Number of people (disaggregated by age and gender) given training or other types of support

To illustrate the relationships between indicators for goals, outcomes and outputs, here is a example which shows different indicators for various projects at different levels. The top row of the table, in dark blue, shows the sector in which the project is taking place: a water supply project, a women's empowerment one, and projects in Environment and Human Rights. The left column, also in dark blue, would list the project's goals, outcomes and outputs.

It may be helpful to understand the difference in indicators by starting at the bottom of the column, next to the outputs. When we look at the water supply project, the output indicator states the number and type of wells installed. Remember outputs are the immediate results of project activities. The outcome indicator which measures the change over time, aims to measure the results after a number of wells have been installed with the outcome indicator stating the number of beneficiaries with sustained availability of clean water for domestic use. From here, over time (the goal or the long-term objective) would be a reduction in ill health and a reduction in mortality. By looking at the output, outcome and goal indicators for each project, you can see that each indicator measures a specific and different change created by the project.

8

Step by step guide: 4. Measuring baseline and target

Measuring the baseline (the situation before the project is implemented)

The baseline of a project is completed at the beginning of a project or program. To develop the baseline, identify what data is readily available and which data you have to develop. When an ongoing project does not have a baseline, there are two options:

- Option 1: establish a baseline retrospectively by using historical project information
- Option 2: establish a baseline of the present situation.

➢ It is better to have an incomplete baseline than no baseline.

Identifying the target (the future anticipated situation after the project has been completed)

Target-setting is identified by reviewing the project's influencing factors, what partners are doing, and what degree of change can realistically be associated with the project's contribution.

Questions like these can help you narrow it down: What are the past trends? What change has been observed over previous periods; How well have others done in this area; What are the limits to progress (assumptions and risks);

➢ The key to establishing targets is realism.

Step 4 in developing a monitoring plan is about measuring the baseline and targets. Indicators require a baseline, target and timeframe in order to be useful in verifying the progress and results of a project as that makes it possible to demonstrate change over time.

To measure the baseline of a project, we look at the situation before the project is implemented. To develop the baseline, we have to identify what data is readily available and which data has to be developed. Ideally, the baseline should be gathered and agreed upon by stakeholders when a programme is formulated. For many ongoing activities, however, baselines are not always specified at that time. When an ongoing project does not have a baseline, there are two options to consider. The first option is to establish a baseline retrospectively by using historical project information, perhaps from data included in past annual review exercises. Or, if such information can not be retrieved, the second option is to establish a baseline of the current situation. Remember a baseline is critical to measure progress and it is better to have an incomplete baseline than no baseline at all.

The next step is to identify the target. To identify the targets we look at the future anticipated situation after the project has been completed. Target setting is identified by reviewing the project's influencing factors, what partners or stakeholders are doing, and what degree of change can realistically be associated with the project's contribution. Questions like these can help you narrow it down: what are the past trends or what change has been observed over previous periods? How well have others done in this area and what are the limits to progress? Remember that the key to establishing targets is realism. Meaning, targets need to be able to be met by the project and the project alone (commensurate), its resources, its objectives, expertise and partnerships.

Step by step guide: 5. Elements of the Monitoring Plan

Data Source	Data collection method/Tools	Frequency	Budget	Roles and Responsibilities
• The specific document or report that contains the information (how do you know the indicator) • For example: public records, project internal records that detail the number of people trained, policy recommendations or public consultations, administrative records of client service	• Outlines how the data will be retrieved or how it will be developed • For example: review of statistical surveys; development of awareness or attitude questionnaires; facilitation of expert panels, trained observers; focus groups and key informant interviews.	• Some information may have to be collected at different time intervals: • At specific times, example quarterly or annually, for example satisfaction survey of participants • Ad-hoc, for example, attendees of training event	• Think through what financial resources will be required to collect the data • For example: travel, accommodation, workshop facilitation materials, food and drinks, payments for data sets	• Finally, identify who is responsible for monitoring and/or will provide the information – not just the Project Manager • For example: finance, communications, other government divisions, etc

---

Step 5 details the specifics around data sources, collection methods and tools, the frequency of data collection, the budget required and roles and responsibilities for the provision of data and information

Data sources are specific documents or reports that contain the information that meet the indicator. For example, data sources can be public records, project internal documents that detail for example the number of people trained, policy recommendations or public consultations.

Data collection methods and tools refer to how the data will be retrieved or how it will be developed. For example statistical data might not be readily available so this would include a review of statistical surveys, or the development of awareness or attitude questionnaires, the facilitation of expert panels, focus groups and key informant interviews.

Frequency of data collection refers to when information will be collected or documented. This could be quarterly or annually such as annual satisfaction surveys or on an ad-hoc basis, for example the attendees of training events.

It is important to also think through the budget that might be required to collect the data. For example travel budgets if you need to travel to remote communities or workshop facilitation, the workshop materials, food and drinks and sometimes this includes the payments for specific datasets.

The final column lists the roles and responsibilities and identifies who is responsible to provide the information. For example, other project stakeholders such as the climate change department for breaches of environmental and social safeguards, or the statistics department etc

Step by step guide: 6. Monitoring arrangements

There are standard M&E roles & responsibilities in each project. Often, additional project stakeholders have important M&E roles to fulfil. Specific M&E roles should be detailed and documented in the Monitoring arrangements of the M&E Plan.

- **M&E Officer or M&E Coordinator:** the M&E Officer does the day-to-day monitoring of the project, such as data collection, gathering of reports and information from other sources, researching project-related information and drafting the M&E input into project reporting. They provide M&E training and mentoring to project stakeholders who have an M&E role to play in the project.

- **Project Manager (PM):** the PM manages all aspects of the project, including input and oversight of M&E. The PM monitors progress of the project based on findings of the monitoring activities, lessons learned and annual reflection workshops. A key role of the PM is to steer and redirect the project if monitoring and evaluation findings indicate that the project is not making progress or that risks and issues could prevent the project from achieving its goals. The PM also provides recommendations to the Project Board or Steering Committee based on findings and recommendations from evaluations.

- **Project Board or Steering Committee:** provides project guidance and direction based on the findings from the monitoring & evaluation reports and recommendations from the Project Manager and Project Team. Makes decisions for the benefit of the project based on evaluation findings and recommendations.

- **NDA, Accredited Entity, Executing Entity (GCF) / Country Focal Points (GEF and others):** the NDA, Accredited Entity, Executing Entity and Country Focal Points have funder specific roles, including M&E. These are outlined in the country agreements which are drawn up and agreed with the country before any project is developed. More detail can be found on the Funder's websites, the Country Agreements or the Project Funding Agreements.

When M&E stakeholders are identified, roles and responsibilities should be clearly explained so that stakeholders understand their role throughout the project. The M&E Officer can be a very helpful ally to provide training and mentoring to these stakeholders.

The final step in the monitoring and evaluation planning lists the monitoring arrangements. There are standard M&E roles and responsibilities in each project. Often project stakeholders outside the project team have important roles to fulfill. These roles should be detailed and documented in the monitoring arrangements of the M&E plan. Below are some key roles.

The M&E Officer does the day-to-day monitoring of the project such as the data collection, gathering of reports and information from other sources, researching project related information and drafting the M&E input into project reporting. They are able to provide training and mentoring to project stakeholders who have an M&E role to play in the project but are unsure of what is required.

The Project Manager manages all aspects of the project and this includes input and oversight of monitoring and evaluation. The Project Manager monitors the progress of the project based on findings of the monitoring activities, lessons learned through evaluations and annual reflection workshops. The Project Manager is ultimately responsible to redirect the project if M&E findings indicate that the project is not making sufficient progress or that risks and issues could prevent the project from achieving its goals. The Project Manager also provides recommendations to the project board or steering committee based on findings and recommendations from monitoring and evaluation activities.

The project board or steering committee provides project guidance and direction to the project based on the findings from the monitoring and evaluation reports and based on recommendations from the project manager and project team. The project board or steering committee makes strategic decisions for the benefit of the project based on evaluation findings and recommendations.

Climate finance funding organizations such as the Green Climate Fund and the Global Environmental Fund have specific project roles such as the National Designated Authority, Accredited Entity, Executing Entity and the GEF for example has Country Focal Points. These stakeholders also have M&E responsibilities which are drawn up and agreed with the country before a project is developed. The specific detail of their roles is documented in the Country Agreements or specifically in each Project Funding Agreement. Their roles often relate to annual reporting and evaluations and/or progress towards strategic goals and objectives.

When M&E stakeholders are identified, roles and responsibilities should be clearly explained so that stakeholders understand their role throughout the project. The M&E Officer can be a very helpful ally to provide training and mentoring to these important stakeholders.

Key elements of an Evaluation Plan

Key Evaluation Questions (KEQ)

The ultimate usefulness of an evaluation is dependent on the creation of well-defined evaluation questions. These questions reflect stakeholder information needs and are associated with evaluation criteria. The specific evaluation methodology, tools, analysis and interpretation plans, are guided by these questions. KEQ's are often part of the project design documentation and are formulated at the beginning of the project.

Frequency / Timing

Next, complete the frequency that evaluation activities will take place. The timing of reflections/evaluations will be based on the project's information needs and the evaluation purpose.

Evaluation Budget

Finally, complete the evaluation budget column. The evaluation budget figure identifies the total amount allocated for the evaluation activity. Usually, the amount can be found in the overall project budget.

Evaluation purpose (performance, impact...)	Key Evaluation Questions	Frequency (annual, mid-term, end of project)	Evaluation Budget
Annual Project Reflections	How well are resources being used? Is the project achieving its objectives?	Annually	$1000USD for workshops
Impact	Did the project do the right thing? Will the benefits last?	End of project	$10000 USD (tbc) for independent evaluator

Now that you know how to develop a monitoring plan, we move on to the evaluation plan which is the second element of M&E planning. The key elements of an evaluation plan are the key evaluation questions, the frequency and timing of evaluation activities such as mid-term evaluations, annual reflections and external evaluations, and the required evaluation budgets.

The ultimate usefulness of an evaluation is dependent on the creation of key evaluation questions. These questions reflect stakeholder information needs and are associated with evaluation criteria. The specific evaluation methodology including tools, analysis and interpretation plans are guided by the evaluation questions. Evaluation questions are often specified in the project design documentation.

The timing and frequency of evaluation activities is determined during the project design stage and is based on the project information needs and the evaluation purpose.

An important yet often overlooked or underestimated aspect of evaluation planning is the determination of an evaluation budget. The evaluation budget figure identifies the total amount allocated for the evaluation activity. Usually this amount can be found in the overall project budget.

The table below provides some examples of evaluation activities and key evaluation questions.

Best practice

- Involve the right people, at the right time: M&E plans are best developed with multiple stakeholders as different people will be able to contribute to different sections. Consider designing an initial draft with core project staff and then involve partners to refine it and check that it is feasible.
- Go step by step: the M&E Plan can be an intimidating document. Do not try to complete all the columns at once. Start by populating the template with the goals, outcomes and outputs, then define the indicators and how you will measure them. Then return to the baseline, the targets and who will provide what (roles and responsibilities).

Start with a draft → Consult → Review and Update → Inform stakeholders

- Treat it as a living document: the monitoring plan should be continually reviewed and referred to, in order to ensure that you measure the right thing. If there are significant changes in the project, verify if the indicators are still valid, or if they should be amended.
- The M&E plan is a key document in the project as it provides assurance to stakeholders that the project is making progress towards its goals and objectives. A good M&E plan will make it easier to complete quarterly and annual reporting and will form the basis of all project evaluations.

When developing a monitoring plan keep in mind that practice makes perfect, but a few pointers might help you on the right track. M&E plans are best developed with multiple stakeholders as different people will be able to contribute to different sections. Consider designing an initial draft with core project staff and then involve project stakeholders to refine it and check that it is feasible.

An M&E plan can be an intimidating document; do not try to complete all the columns at once but start populating the template with the goals, outcomes and outputs from the theory of change or the logic framework. Then define the indicators and how you will measure them, then return to the baseline and target and define who will provide what.

The monitoring plan should be continually reviewed and referred to in order to ensure that you measure the right thing at the right time. If there are significant changes in the project, verify if the indicators are still valid or if they should be amended.

The M&E plan is a key document in the project as it provides assurance to stakeholders that the project is making progress towards its goals and objectives. A good M&E plan will make it easier to complete quarterly and annual reporting and will form the basis of all project evaluations.

Types of evaluation

Type	Purpose	Example questions	Timing
Formative	Improve and refine an existing project	Where can we improve? What are we missing?	Early in project implementation, up to the mid-point of a project
Process	Understand how well a project is being implemented particularly if you want to replicate or enlarge the project	How can we be more effective? How can we improve?	During project implementation (often at midpoint) or at the end
Impact or Outcome	Assess how well a project met its goal; impact evaluations often use rigorous data collection, analysis and control groups	What difference did the project make? To what extent did the project make an impact – compared to other similar projects?	At project end. Required baseline data, and regular, rigorous monitoring activities
Summative	Judge the performance of the project	How well were resources used in the project? Is the project achieving its objectives?	At project end
Ex-post	Assess the long-term sustainability of the project	Will the benefits last?	After the project's formal end date – sometimes 3 to 5 years later

The most common types of evaluations are listed in the table here. It is useful to note that different types of evaluation serve different purposes, have therefore different key evaluation questions and take place at different times in the project. If you understand the information needs from the funding organization and project stakeholders, it will be easier to identify which type of evaluation is required. For example, a formative or mid-term evaluation is undertaken early in the project to understand whether the project will achieve its objectives and what can be improved. In contrast, a summative (or final) evaluation is completed at the end of a project, looks at all the different aspects of a project to evaluate how well it was delivered and implemented.

Climate funding organisations' requirements for M&E

Every funding organization has to report on the performance of its project portfolio and the impact its funding makes to sustainable development and/or mitigation and adaptation. Therefore, all funding organisations have their own specific M&E requirements and reporting needs. With many of these updating their requirements regularly, it is best to check the funders' websites before you start, to ensure you have the latest templates and are aware of upcoming changes.

Please find some links below to M&E information of funding organisations:

- Adaptation Fund (AF): https://www.adaptation-fund.org/projects-programmes/project-performance/ ; https://www.adaptation-fund.org/knowledge-learning/
- Global Environmental Fund (GEF): https://www.thegef.org/documents/monitoring-and-evaluation-adaptation-gef-experience
- Green Climate Fund (GCF): https://www.greenclimate.fund/projects/results-based-management
- World Bank (WB): https://openknowledge.worldbank.org/handle/10986/23975?locale-attribute=es
- Asian Development Bank (ADB): https://www.adb.org/documents/guidelines-preparing-design-and-monitoring-framework
- EU: https://international-partnerships.ec.europa.eu/policies/monitoring-and-evaluation_en
- Climate Investment Fund (CIF) : https://www.climateinvestmentfunds.org/evaluation-and-learning

Every funding organization has to report on the performance of its project portfolio and on the impact its funding makes towards sustainable development, mitigation and adaptation. Therefore, all funding organizations have their own specific M&E requirements and reporting needs. With many of these updating their requirements regularly, it is best to check the funders' websites before you start, to ensure you have the latest templates and are aware of upcoming changes. Below are some links to some of the big funding organizations which may help to find more information and M&E support.

M&E Reporting

In addition to project reporting such as risks and finances, M&E reporting is a key requirement of the standard project reporting cycle. However, don't limit the findings and recommendations from M&E to just a standard report, but find creative ways to share these widely:

1. Identify reporting requirements: what timeframe and format is required for reporting, start the process early so that reviews and endorsements are completed timely

2. Develop reporting media: written reports such as executive summaries, interim reports; but also infographics, website comms, conference papers, video presentations

3. Ensure accessibility: how can the report be easy to access and read for different users. For example, apply the 1:3:25 principle (1 page outline, 3 page executive summary, 25 pages to present findings and methodology)

4. Develop recommendations: through group/team reflections, discussions with beneficiaries, lessons learned workshops, participatory recommendation screening whereby recommendations are discussed with key project stakeholders

5. Support use of the M&E findings: in addition to engaging with intended users of the M&E reports, ensure that findings and recommendations are implemented in the project or are incorporated in the design of future projects. For example, through annual reviews, policy briefings, conference presentations, trade publications etc.

In addition to project reporting such as risks and finances, M&E reporting is a key requirement of the standard project reporting cycle. However, don't limit the findings and recommendations from M&E to just a standard report but find creative ways to share the findings widely:

Identify what timeframe and format is required for reporting and start the process early so that reviews and endorsements are completed in time.

It will be required to develop written reports such as executive summaries and interim reports but also think about infographics and website communications or conference papers and video presentations.

Ensure accessibility to the reports that are produced. How can the report be easily accessed and read by different audiences.

Through group and team reflections, discussions with beneficiaries or lessons learned workshops, develop recommendations that are supported by project beneficiaries and project stakeholders.

And finally, in addition to engaging with intended users of the M&E reports, ensure that findings and recommendations are implemented in the project or are incorporated in design of future projects.

Purpose of Monitoring and Evaluation: Learning

- Learning is an important aspect of proposals and projects with monitoring and evaluation forming the basis of factual and relevant project information. Increasingly, funding organisations will specifically ask you to describe the learning elements (or knowledge management) of your project. The best way to address this is to make sure that learning is fully incorporated into your project. Ways to "learn" and share these project lessons may include:
  - Publishing case studies and success stories
  - Hosting roundtable sessions or workshops to present and discuss experiences
  - Using of social media to publicize project activities
  - Including relevant information on the organization's website
  - Posting videos or publishing newsletters
  - Presenting at conferences
  - Think about the following questions when considering 'learning':
    - How is your organization going to learn? What new skills, abilities, and competencies is your organization going to acquire?
    - How will your project improve the institutional and human capacities of relevant government agencies? For example: "This project will improve the capability of the Department of Agriculture to incorporate climate change vulnerability information into normal processes of sectoral planning and budgeting."
    - How is the community going to benefit in the long term from your project?
    - Is your project scalable and replicable? How are others going to learn from your project experience so that they can repeat what you have done or avoid your mistakes, and how is the government going to be able to implement the successful innovations developed by your project on a larger scale?
    - Are your outputs sustainable? How will you ensure that any booklets, publications, curriculum materials, or other materials that you produce continue to be used after your project is completed?

Learning is an important aspect of proposals and projects with monitoring and evaluation forming the basis of factual and relevant project information. Increasingly funding organisations will specifically ask you to describe the learning elements or knowledge management of your project. The best way to address this is to make sure that learning is fully incorporated into your project. Ways to learn and share project lessons may include publishing case studies and success stories, hosting round round table sessions or workshops to present and discuss experiences, using social media to publicize project activities, including relevant information on the organization's website, posting videos or publishing newsletters and presenting at conferences.

When considering learning think about the following questions: how is your organization going to learn? What new skills, abilities and competencies is your organization going to acquire? How will your project improve the institutional and human capacities of relevant government agencies? How is the community going to benefit in the long term from your project? If your project is scalable and replicable, how are others going to learn from your project experience so that they can repeat what you have done or avoid your mistakes? How is the government going to be able to implement the successful innovations developed by your project on a larger scale? And finally, how will you ensure that any booklets or publications or other materials that you produce, continue to be used after your project is completed.

Summary of the presentation

- A good M&E Plan provides assurance to funders and project stakeholders that resources and processes are in place to monitor the project's progress, to track its results and to assess whether it will be able to achieve its long-term objectives and goals.

- A good M&E plan will enable you to effectively capture the lessons learned—both positive and negative—from your project.

- A thoughtful and well-planned M&E plan is a key element in presenting your project to funders. Virtually all funders will require you to develop an M&E plan as part of your proposal, and there are normally evaluation points added or deducted based on the quality.

- When developing a monitoring and evaluation plan, involve the right people, go step by step and review it regularly.

- There are many good guidebooks and references for all aspects of monitoring, evaluation, reporting, and learning. You will find links to some of these in the Reference materials.

In summary, a good M&E plan provides assurance to funders and project stakeholders that resources and processes are in place to monitor the project's progress, to track its results and to assess whether it will be able to achieve its long-term objectives and goals. A good M&E plan will enable you to effectively capture the lessons learned, both positive and negative, from your project. A thoughtful and well-planned M&E plan is a key element in presenting your project to funders. Virtually all funders will require you to develop an M&E plan as part of your proposal and there are normally evaluation points added or deducted based on the quality. When developing a monitoring and evaluation plan make sure you involve the right people, go step by step, and review the plan regularly. There are many good guidebooks and references for all aspects of monitoring evaluation reporting and learning. You will find links to some of these in the reference materials. Thank you for your attention and good luck.

Reference materials

- www.betterevaluation.org
- www.tools4dev.org
- https://mealdprostarter.org/
- UNSDG Results Based Management Handbook
- Green Climate Fund Proposal Toolkit 2020
- GCF Policies: Results, Monitoring, Evaluation
- GCF Programming Manual
- Small Grants Guide for Pacific Communities to fund climate projects

Project formulation handbook for the practitioners in the Pacific

Analysis of problems and objectives and development of a logical framework

for climate change mitigation and adaptation projects in the Pacific region

Background and objective of this handbook

The Pacific Climate Change Centre (PCCC) undertakes capacity-building programmes for various stakeholders in the Pacific region through various channels. Such programmes include a technical cooperation project supported by Japan International Cooperation Agency (JICA) entitled, 'Project for Capacity Building on Climate Resilience in the Pacific (CBCRP-PCCC)', which was implemented through PCCC. This project formulation handbook for the practitioners in the Pacific (henceforth, 'handbook') encompasses lessons from the following training courses that were conducted under this technical cooperation project:

- *Understanding access to climate finance (Part 1): Essential aspects for access to climate finance (November 2020)*
- *Climate change and disaster risk reduction through structural approaches (March 2021)*
- *Ecosystem-based adaptation and mitigation (June–July 2021)*
- *Climate resilience of food production systems: Agriculture and coastal fishery (September–October 2021)*
- *Enhancing climate resilience in tourism in the Pacific (January–February 2022)*
- *Enhancing climate resilience and safe water access in rural areas in the Pacific (May 2022)*

During the training programme, many participants performed group exercises on problem and objective tree analyses as well as logical framework development. For many practitioners, this was their first experience considering cause-effect relations and the contents of logical frameworks; hence, there were many exchanges and feedback provided by the experts through the outputs of their exercises. These experiences and results indicate that there are persistent needs among the practitioners in the Pacific to strengthen and enhance their capabilities to initiate, facilitate, and lead the project formation processes with stakeholders toward the development of tangible climate change projects. The CBCRP-PCCC team also recognises that these analysis tools and methodologies are useful and effective for responding to their needs and supporting their own and self-helped initiatives.

This handbook is one of the foremost learning materials of the CBCRP-PCCC training course, 'Understanding access to climate finance: Part 3: Project planning, budgeting and scheduling', a sub-module on facilitation for project planning. This sub-module aims to recap the tools and knowledge of problems and objective analysis as well as logical framework development that were delivered during the workshop 'Understanding access to climate finance: Part 1: Essential aspects for access to climate finance' in November 2020. Accordingly, this handbook focuses on the very initial but important stages during project formulation. It also intends to be concise, practical, and useful, offering many tips based on the challenges and difficulties faced by practitioners.

Table of contents

List of tables

List of figures

Contributors

Ms 'Ofa Ma'asi-Kaisamy, Manager, PCCC

Mr Fred Patison, Climate Change Finance Readiness Advisor, Secretariat of the Pacific Regional Environment Programme

Mr Yoshihiro Mizuno, Pacific Consultants Co., Ltd, Japan (Team Leader, JICA expert team)

Mr Tetsuya Yoshida, Oriental Consultants Global Co., Ltd, Japan (JICA expert team)

Dr Peter King, Senior Policy Advisor, Institute for Global Environmental Strategies

Abbreviations and acronyms

Abbreviations and acronyms	Description
ADB	Asia Development Bank
CBCRP	Project for Capacity Building on Climate Resilience in the Pacific
GCF	Green Climate Fund
GHGs	Greenhouse Gases
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
IPCC	Intergovernmental Panel on Climate Change
JICA	Japan International Cooperation Agency
NAP	National Adaptation Plan
NDC	Nationally Determined Contribution
PCCC	Pacific Climate Change Centre
SPREP	Secretariat of the Pacific Regional Environment Programme
USAID	United States Agency for International Development
UN-Habitat	United Nations Human Settlements Programme

Definitions of key terms

Terms	Definition
Activities	Actions (tasks) that have to be undertaken to produce results in the context of the Logical Framework.
Assumptions	External factors which could affect the progress or success of the project, but over which the project manager has no direct control. They form the 4th column of the Logical Framework, and are formulated in a positive way.
Climate rationale	The justification that the linkages between climate and climate impacts, climate action, and societal benefits are fully grounded in the best available climate data and science.
Component	Combination of outputs which a project/programme intends to deliver with full control by the project/programme.
Concept note	A project or programme concept document that provides basic information about a project or programme to seek feedback on whether the concept is broadly aligned with objectives and policies of the donors/organisations/funds.
Deliverable	The products of successful execution of an activity or a set of activities. They can take the form of goods, products, reports, or services to be created, developed, or produced.
Evaluation	A systematic, objective assessment of an ongoing or completed intervention at a particular point in time, including its design, implementation, and results.
Funding proposal	Document containing information on a proposed climate change project or programme, which is submitted to the donors/organisations/funds to access their resources.
Indicator	An indicator helps measure at different points in time progress towards achieving results (impacts, outcomes, and outputs) or provides evidence that a result has been achieved using a particular unit of measurement.
Inputs	Funding, human effort, expertise, technology, materials, and information used

Terms	Definition
	for implementation of projects/programmes.
Impact	The effect of the project on its wider environment, and its contribution to the wider sector objectives.
Logical framework	The matrix in which a project's intervention logic, assumptions, objectively verifiable indicators and means of verification are presented. Also known as a logical framework, project framework, project decision matrix, results framework, logic model, outcome mapping, or design and monitoring framework.
Means	Physical and non-physical resources that are necessary to carry out the planned activities and manage the project. A distinction can be drawn between human resources and material resources.
Means of verification	They form the third column of the logical framework, and indicate where and in what form information on the achievement of the overall objective, the project purpose(s), and the results can be found (described by the objectively verifiable indicators). They should include summary details of the method of collection, who is responsible, and how often the information should be collected and reported.
Monitoring	The continuous, systematic collection of data against specified indicators/measures to provide the main stakeholders of a project/programme with insight on progress and performance.
Objective tree	A diagrammatic representation of the proposed project interventions planned logically, following a problem analysis, and showing a means to ends relationship.
Outcomes	Changes in conditions such as behavioural or systemic change that occur between the completion of project/programme outputs and the achievement of impact.
Outputs	Changes delivered as a result of project/programme activities that contribute to the achievement of outcomes.
Problem analysis	A structured investigation of the negative aspects of a situation in order to establish causes and their effects.
Problem tree	A diagrammatic representation of a negative situation, showing a cause-effect relationship.
Risks	The probability that an event or action may adversely affect the achievement of project objectives or activities. Risks are composed of factors internal and external to the project, although focus is generally given to those factors outside project management's direct control. See also assumptions.
Stakeholder analysis	Process of identification of all stakeholder groups likely to be affected, either positively or negatively, by the proposed intervention, the identification and analysis of their interests, problems, potentials, etc. The conclusions of this analysis are then integrated into the project design.
Stakeholders	Any individuals, groups of people, institutions or firms that may have a relationship with the project. They may, directly or indirectly, positively or negatively, affect or be affected by the process and the outcomes of projects.

References:
GCF 2022
European Commission 2004
Fayolle, V. and Dhanjal, M. 2020

Introduction

This handbook is designed for practitioners in the Pacific region who are planning to develop a project that will address climate change through adaptation and/or mitigation intervention.

The typical process for designing any project concept, including a climate change adaptation or mitigation project, consists of the following five steps that are divided into two components. The first three steps comprise the **situation (problem) analysis**, and the last two steps cover the **solution (objectives) analysis**, as shown in the figure below.

(Edited by author based on Guidelines for Preparing a Design and Monitoring Framework. ADB. 2020)
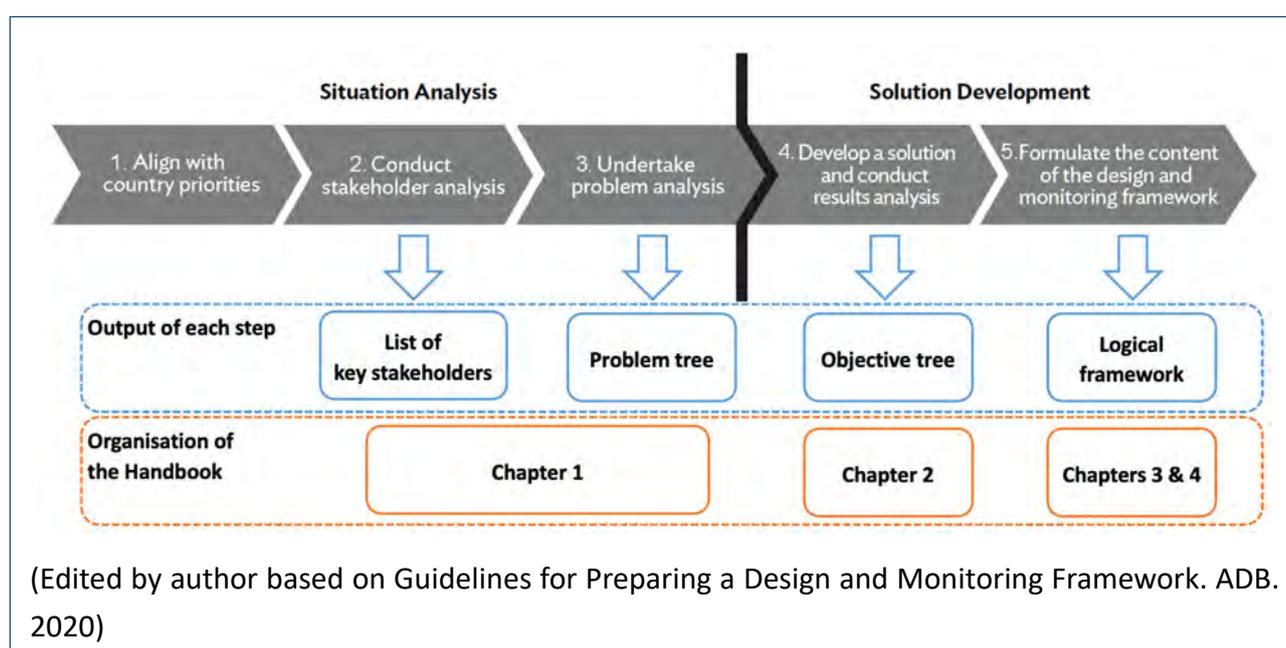
The steps are:

i.   Practitioners ensure that the proposed project concept is in line with the country's development priority or climate change strategy, such as the Nationally Determined Contribution (NDC) and National Adaptation Plan (NAP). If specific development partners and/or funds are considered, the alignment with the country/regional strategy and priorities also needs to be checked.

ii. **Stakeholder analysis** is conducted where stakeholders who can significantly influence project success or be influenced by the project (as well as their roles) are identified.

iii. How to identify the development problem(s) to be addressed is explained. A **problem tree** is formulated through participatory **problem analysis**, where key stakeholders jointly analyse and identify the underlying causes of the problem(s) and their effects.

iv. Potential solutions for the problem identified in the previous step are identified through **objective** or result analysis. An **objective tree** is formulated through discussion and analysis.

v. The scope/strategy of the project, along with its monitoring framework, are formulated. A **logical framework** for the project concept is developed as the final output.

Structure of the handbook

This handbook consists of four chapters and appendices that explain the stepwise approaches and methods required to formulate a strong project concept.

Chapter 1 explains how to capture the main problem that is caused or worsened by climate change by formulating a robust problem tree through a participatory approach, as well as how to effectively list the key stakeholders of such climate change projects.

Chapter 2 describes the process of formulating an objective tree that forms the basis of a logical framework.

Chapter 3 illustrates an approach for determining the project scope or strategy among the alternatives identified in the objective tree.

Chapter 4 shows how to develop a solid logical framework that can be a part of project proposals for development agencies or climate financiers.

All chapters contain useful tips and solutions for the questions and difficulties practitioners often face in formulating a project concept by referring to the lessons learned from the capacity-building activities conducted by the PCCC.

Chapter 1 Problem analysis

Demonstration of climate rationale in a project concept

When developing a climate change adaptation or mitigation project (i.e. if you plan to apply for climate finance from funds such as the Green Climate Fund [GCF]), it is essential to illustrate the solid '**climate rationale**' of the proposed project. A robust explanation of the climate rationale demonstrates that the proposed intervention will contribute to climate change adaptation and/or mitigation, and is not a conventional development project. Regardless of the severity of the problem, unless the rationale can demonstrate that the problem is caused by climate change and the project will address either the causes of climate change (i.e. mitigation) or the impacts of climate change (i.e. adaptation), the financing agency will look no further at the project concept.

It is highly useful to consider this climate rationale when conducting problem analysis by investigating climate-driven problems. It is also useful to include statements that show the logic of the climate rationale as the cause statements (either a direct or indirect cause) in the **problem tree**. By clearly showing climate change impacts in the target location, such as increasing frequency and intensity of drought or flood, sea level rise, or physical impacts on livelihoods, the problem tree can demonstrate that the project addresses one or more climate change issues in addition to the development agenda. A strong climate rationale is supported by the latest science-based evidence derived from past and current climate data as well as future predictions and projections, such as those contained in a vulnerability assessment and adaptation strategy of the relevant country, and the latest international science, such as the Intergovernmental Panel on Climate Change (IPCC) assessment reports.

While it is quite easy to explain the problem that a *mitigation* project can address (i.e. an increase of greenhouse gases [GHGs] in the atmosphere), it is not as easy to do so for *adaptation* projects. The overlap between climate change adaptation and development can make it difficult to separate climate-specific benefits from broader developmental benefits of an intervention. For example, controlling flood damage by constructing infrastructure is a common development project (i.e. for disaster risk reduction), but this can also be a climate change adaptation project if scientific data demonstrate that the flooding is intensified by climate change. Similarly, a project that aims to improve agricultural productivity in rural areas by introducing new crop varieties is a conventional approach to rural and agricultural development projects; however, when such a project incorporates crop varieties that are tolerant to climate change, such as tolerance to higher temperatures and changing precipitation patterns that are evidently due to climate change, this may comprise an adaptation intervention and thus be a climate change project.

For the climate rationale, the best available climate data and science are thus required to establish a clear causal link between climate change and the problem that the project aims to address. However, providing such a climate rationale for projects, particularly adaptation projects, is challenging in data-poor countries.[1] There are various existing data analysis methods that are useful in identifying potential climate change hazards and developing a climate rationale for a proposed project, and researchers are encouraged to keep up to date with this emerging science.

Problem analysis is often used as the first step in project planning. Problem analysis provides an understanding of the main problems and constraints, such as the economic, socio-political, and environmental context surrounding the issue that a proposed project will address, the **causes** of the main problem, and its **effects** on the lives of people (including women and men of all ages, ability, socioeconomic status, and ethnicity)[2], society, and environment.

The output of the problem analysis is presented in a diagrammatic form called a **problem tree,** which shows the **core problem** in the centre (the *trunk*), its **effects** on the top (*branches*), and its **causes** underneath (*roots*). A problem tree is, therefore, a graphical representation of an existing problem, its causes, and its effects, which aim to provide a clear, shared understanding of the issues involved in a unified manner. The illustration, however, must be supported by more detailed text and as much quantitative evidence as possible.

The problem analysis and team exercise for developing a problem tree are highly useful in project formulation for many reasons that include, but are not limited to the following[3].

- The problem can be broken down into manageable and definable parts, which enables a clearer prioritisation of factors and helps focus on objectives.
- It provides a better understanding of the problem and is often interconnected and contradictory.
- It identifies the constituent issues and arguments, and can help establish who the political actors are and what processes are involved at each stage.
- It can help establish whether further information, evidence, or resources are required to make a stronger case or build the rationale for a more convincing solution.
- Present issues (rather than apparent future or past issues) are handled and identified.
- The analysis process often helps build a shared sense of understanding, purpose, and action required by key stakeholders who may have never worked together.

An indicative format of the problem tree is shown in Figure 1, and an example is shown in Figure 2. Note that the format of the problem tree shown here is just an example, and each tree should have a unique structure as well as the number of statements except for the **core problem**, which is limited

---

[1] Fayolle, V. and Dhanjal, M. 2020
[2] ADB 2020
[3] ODI 2009

to a single statement.

Figure 1 Indicative format of a problem tree

Figure 2 Example of a problem tree
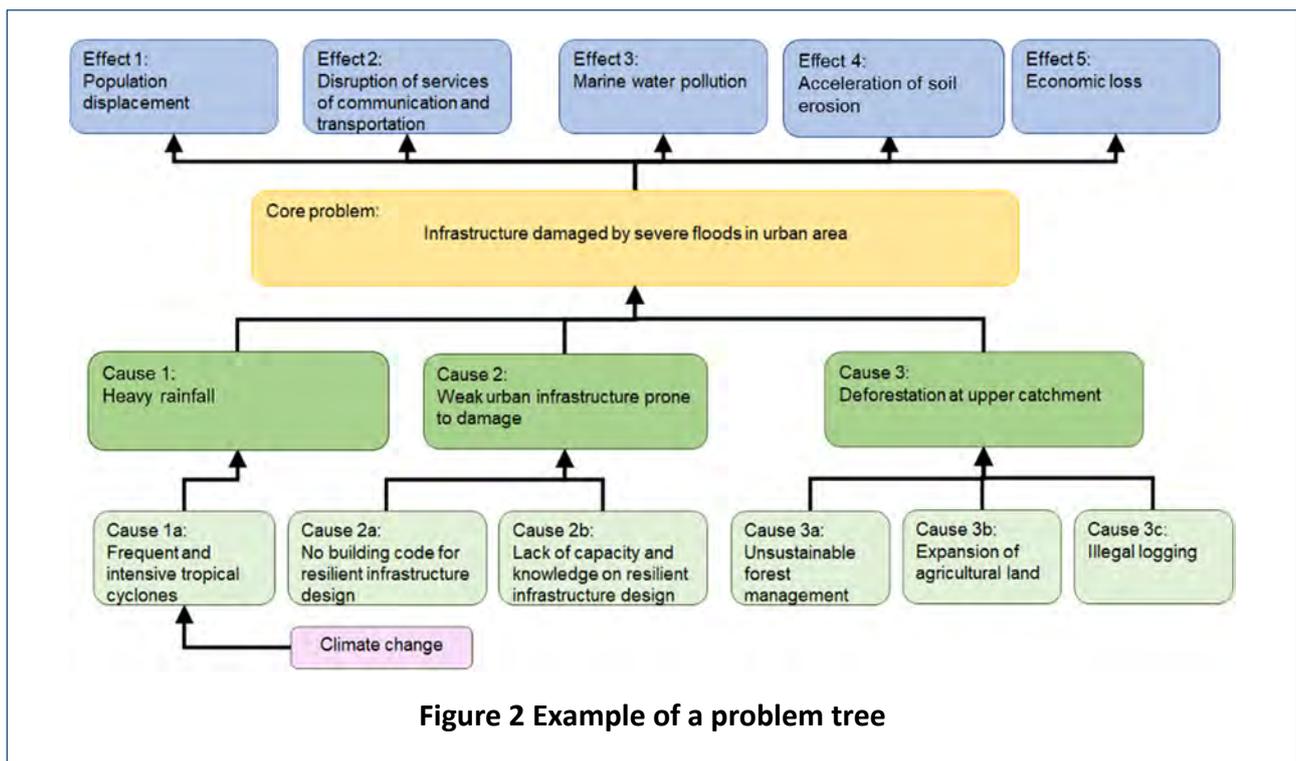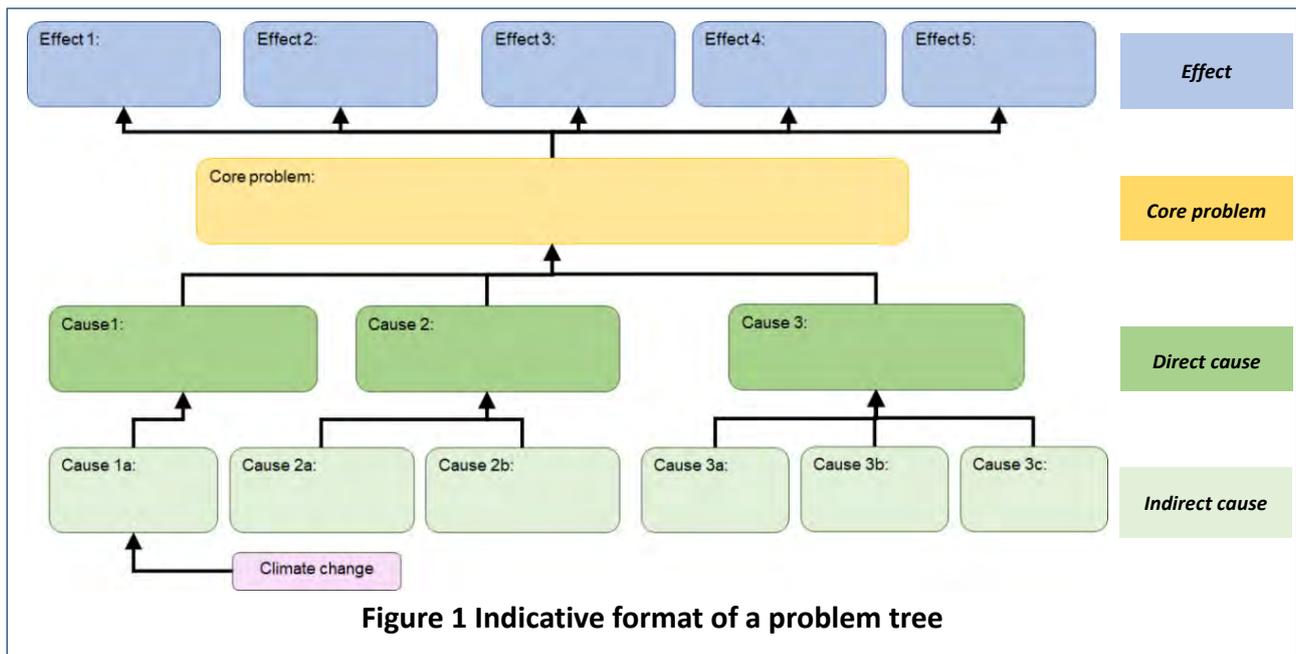
When designing a project, the needs of all beneficiaries should be properly addressed. The project concept should be based on a correct and complete analysis of the existing situation, according to the views, needs, interests, and activities of the concerned **stakeholders**. It is essential that all stakeholders work together on the plans, accept them, and be fully committed to their implementation.

Problem analysis is a **participatory planning** technique in which all concerned stakeholders identify and analyse the needs *together*, creating ownership and commitment among the involved parties[4]. When holding a participatory workshop or group meeting, it is effective to use visual techniques such as flipcharts or post-it notes, on which involved stakeholders can write down their individual statements. If it is difficult to physically gather all stakeholders in one place, a survey using questionnaires or virtual online workshops can be conducted. Many online tools, such as Jamboard, allow a team to plan and conduct meetings if in-person meetings are not possible.

Problem analysis can be undertaken in the following **six steps**.

Step 0: Identify key stakeholders
Step 1: Identify core problem
Step 2: Identify direct causes
Step 3: Identify indirect causes
Step 4: Refine and rearrange causes
Step 5: Identify effects

Each of the above steps is explained in this section.

Figure 3 Steps during problem analysis
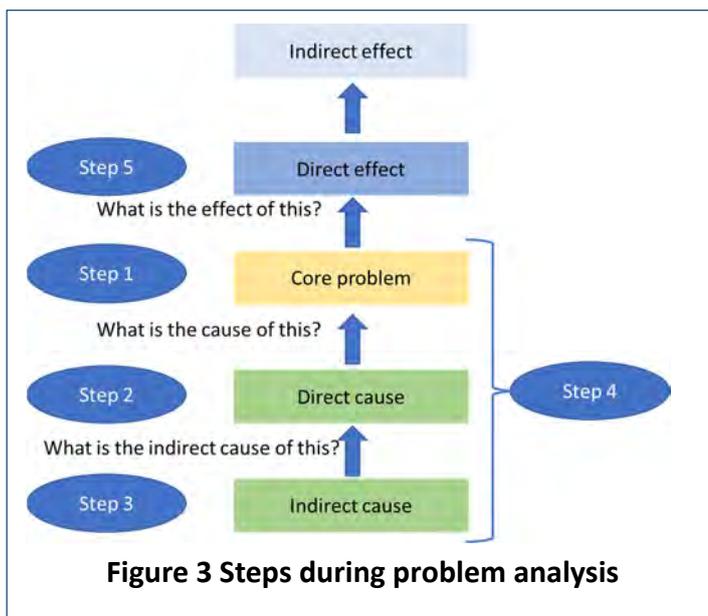
Step 0: Identify key stakeholders

Key stakeholders[5] are those who can be affected by the project, negatively or positively, and those who can affect the outcomes of an intervention.

Stakeholder identification can be performed through a brainstorming process to make an exhaustive list of people, groups, and institutions. The more people and possible stakeholders involved in brainstorming, the less likely it is to miss important stakeholder groups.

The following table shows an example of stakeholders commonly involved in climate projects and their possible contributions to the project.

---

[4] Dillon, Leonellha B.
[5] Lienert, Juri.

Table 1 Examples of stakeholders and their potential contribution[6]

Stakeholder	Potential contribution to climate change project
Government	
District, provincial, and national governments	Climate change knowledge, staff and administrative support, funding, facilities and materials, outreach and communications, technical expertise, vulnerability and risk assessment input, critical implementation support (policy development, implementation, and enforcement), monitoring and evaluation.
Government-elected representatives	Project leaders or coordinators. Political support and leadership, technical expertise, policy and programme expertise, vulnerability and risk assessment input, implementation support through existing planning programmes/policies/initiatives.
Nearby district and provincial government representatives	Political support and leadership, technical expertise, policy and programme expertise, vulnerability and risk assessment input, implementation support through existing planning programmes/policies/initiatives.
District and provincial departments (e.g. planning, engineering, transportation, finance, health)	Project leaders or coordinators. Technical expertise, policy and programme expertise, staff/administrative/logistical resources, funding and financial resources, vulnerability and risk assessment input, implementation support through existing planning programmes/policies/initiatives, monitoring and evaluation.
Public sector	
Sector boards and authorities	Outreach and communications, implementation support (sectoral policy development, local knowledge, implementation, and enforcement), monitoring and evaluation.
Educational institutions (technical schools, universities)	Staff and student support, climate change knowledge and technical expertise, facilities, outreach and communications, critical implementation support (policy development, implementation and enforcement), monitoring and evaluation.
International agencies	Support, funding, technical expertise, implementation support, monitoring, and evaluation.
Local and non-governmental group	
Local/community area leaders	Community credibility and support, local knowledge, outreach and communications, vulnerability and risk assessment input, implementation support, monitoring, and evaluation.
Nearby local/community groups	Outreach and communications, local knowledge, vulnerability and risk assessment input, implementation support, monitoring, and evaluation.
Religious groups	Community credibility and support, outreach and communications, vulnerability and risk assessment input, implementation support, monitoring, and evaluation.
Environmental groups	Climate change knowledge, local knowledge, outreach and communications, technical expertise, funding channel, vulnerability and risk assessment input, implementation support, monitoring, and evaluation.
Under-represented groups	Outreach and communications, vulnerability and risk assessment

---

[6] UN-Habitat 2014

Stakeholder	Potential contribution to climate change project
(e.g. women and minority groups)	input, implementation support, monitoring, and evaluation.
Business and labour	
Small and medium-sized businesses	Funding, facilities and materials, outreach and communications, implementation support, monitoring and evaluation support, local knowledge, vulnerability and risk assessment input, and political-community support.
Trade and labour unions	Funding, facilities and materials, outreach and communications, monitoring and evaluation, and vulnerability and risk assessment input.
Real estate developers	Funding, outreach, and communications.
Banks, credit unions and other financial groups	Funding, facilities and materials, outreach, and communications.
Chambers of commerce and business groups	Funding, outreach and communications, and administrative support.
News media	Outreach, communications, public education, and awareness raising.
Professional associations	Technical support, climate change knowledge (e.g. professional engineering or planning association members), outreach, and communications.
Privately owned/managed utilities	Funding, facilities and materials, technology and infrastructure, and expertise.

Tips to identify key stakeholders

- *Some of the questions that can be used to identify key stakeholders include the following.*
  - *Who are the people/groups/institutions that are interested in the project? What will be their roles?*
  - *Who are the potential beneficiaries?*
  - *Who might be adversely affected?*
  - *Who may impact the project? Who has the power to influence?*
- *After making an exhaustive list, ask the following questions to ensure that the list covers key stakeholders of the project.*
  - *Have all stakeholders been listed?*
  - *Have all potential supporters and opponents of the project been identified?*
  - *Have gender aspects been considered to identify different types of female stakeholders?*
  - *Have the interests of vulnerable groups (especially the poor and people with*

Step 1: Identify core problem

The first step in developing a problem tree is to identify the **core problem** or the main problem that needs to be addressed. The identification process should be done through an open brainstorming meeting that is attended by a wide range of stakeholders and where everyone is given an opportunity to voice their opinions.

How to identify a core problem

Start by identifying an initial set of problems in the target sector. Brainstorm major problems facing the target sector based on documented information as well as inputs from stakeholders. An idea for the Core Problem can be found in various sources, including:

- Existing policy/strategy on the targeted theme or sector (e.g. disaster risk reduction, ecosystem conservation, agriculture, water resource management);
- National climate change policy and strategies such as National Communication, NDC, and NAP;
- Information provided or collected directly from key stakeholders and experts via interviews and meetings; and
- Information provided or collected from direct site observations.

If a specific donor or international agency for financial and technical support is being considered, refer to their key strategic frameworks and cooperation strategies/plans for the relevant country.

How to state a core problem

The core problem is the simple and objective statement of the physical process that causes difficulties. Note that the core problem is phrased as a *negative* statement.

In formulating a climate change mitigation/adaptation project, the core problem you identify should be addressed realistically. In other words, the core problem should be a climate change 'impact', rather than a physical process, such as sea level rise or increased rainfall, which are not issues that can realistically be addressed by a single project.

Table 2 Examples of possible core problem statement in the Pacific region

Sector	Example statement of core problem
Disaster risk reduction	- Coastal erosion - Displacement of homes along coastal vulnerable areas - Deterioration of road pavement - Forced relocation of people
Ecosystem	Decline in marine species

	• Damage to coral reefs • Loss of habitable land area • Outbreak of invasive species
Food production system	• Low crop yield in atoll islands • Decreasing volume of fish catch • Salt water intrusion in agricultural land • Water scarcity • Food in-security in rural subsistence farming communities • Decline in traditional food production system and farming knowledge
Tourism	• Degraded coastal and riparian environment • Decrease in tourism revenue • Loss of sandy beaches

Tips to make a strong core problem statement

● *State the problem as a negative condition or reality, not in terms of specific things being unavailable or the solution being absent:*

For example, stating a problem as 'lack of technical and vocational education and training institutions in rural areas' formulates the problem in terms of what is missing and may lead to a project being created only to build institutions, whereas 'a high proportion of rural unemployed youth are not enrolled in educational programmes' states a factual problem that could have several underlying causes, including cultural, economic, or other factors, such as low level of interest in existing education and training programmes among youth. This latter problem statement facilitates a more thorough analysis that can help consider a broader range of more relevant solutions.

● *Be specific and clear:*

For example, 'rural road maintenance by district road authorities does not meet national quality standards' is better than 'poor quality of road maintenance'.

● *Ensure ownership by a stakeholder:*

Problem identification focuses on what is happening and to whom. This should involve discussions about whether particular groups are affected more than others. A good problem statement is described from the perspective of those affected by the problem. A helpful guiding question is, 'are we adequately capturing the specific problems facing institutions and key groups, especially men and women, minorities, and marginalised groups?'

For example, 'subnational government institutions lack expertise in climate finance management' is better than 'lack of institutional capacity'.

Step 2: Identify direct causes

After the stakeholders agree about the core problem, the next step is to identify the **direct causes** (or main/major causes) of that core problem by asking, 'What causes this core problem to happen?' It is often helpful to consider direct causes by categories, such as policy constraints, institutional constraints, capacity weaknesses, technical/technological limitations, financial restrictions, or social or cultural norms. Most problems have multiple causes, and it is important to ensure that the preconceived problems or solutions of certain stakeholders do not dominate the problem analysis.

The number of direct causes in the problem tree diagram is not restricted, and varies based on the nature and complexity of the issue being analysed[7]. The identified direct causes should be placed below the core problem in the problem tree, and the connecting arrows should be written upward from direct causes to the core problem.

Step 3: identify indirect causes

The next step is to identify **indirect causes** (or secondary/root causes) of each direct cause identified in step 2 by asking, 'Why has this direct cause happened?'

Place the indirect cause(s) below the corresponding direct cause, and the connecting arrows are written upward from the indirect cause to direct cause. The number of indirect causes also varies depending on the nature and complexity of the cause being analysed and is not restricted.

Indirect causes are generally broader processes that influence direct causes, meaning that different stakeholders have different, and sometimes contradictory, perspectives. Therefore, stakeholder participation is key to accurately depicting the indirect causes[8].

Table 3 Examples of possible cause statements in the Pacific region

Sector	Example statements of direct and indirect causes
Disaster risk reduction	• Increased storm surges • Poor infrastructural planning • Increased population size • Human settlement on flood prone area • Coastal development • Lack of community awareness • Deforestation
Ecosystem	• Damage to coral reefs • Coastal inundation

---

[7] ADB 2020
[8] USAID 2017

Sector	Example statements of direct and indirect causes
	• Poor enforcement of conservation areas • Traditional farming of slash and burn • Overuse of marine ecosystem • Coral bleaching • Excessive use of pesticides and fertilisers • Sand mining • Traditional seafood gathering • Invasive species
Food production system	• Prolonged drought period • Reduced agricultural land • Increased land salinity • Reduced soil fertility • Depletion of groundwater aquifer • Demand for fuelwood • Food production systems vulnerable to drought • Unsustainable farming practices • Inadequate policies to regulate use of chemical pesticides • Limited access to climate info services • Limited access to climate resilient crops • Decline in number of farmers
Tourism	• Pollution in the coastlines • Disturbed marine habitat • Removal of native coastal plants • Vulnerable infrastructure • Degrading coastline and riverside infrastructure • Poor drainage infrastructure • Unregulated housing • Forced inland migration
Cross-sector	• Sea level rise • Severe floods • Prolonged drought period • More frequent and intensive tropical cyclones • Storm surge • Increased coastal erosion • Weak institutional arrangement and enforcement • Lack of institutional integration and coordination (national, provincial, and community level) • Poor infrastructural planning • Poor policy implementation • Dated or weak building codes • Lack of awareness by communities • Limited knowledge on existing regulations • Lack of knowledge on climate change impacts by community • Limited access to information • Limited access to training institutions • Sand mining • Increased population size

Step 4: Refine and rearrange causes

The fourth step of problem analysis is to review all the statements and relationships of the identified direct and indirect causes in the problem tree. Ensure that no key causes are missed.

To check this logic, ask the question, 'Why does this occur?' as you move downward from the core problem statement to the next one. The response should provide a clear direct cause; if there is a major leap in logic, fill in the gap with one or more additional statements.

Step 5: Identify effects

The final step is to identify the **effects** of the core problem by asking the question, 'What are the effects of this problem?' The statements are formulated and placed above the core problem statement.

Continue to specify the indirect effects until the final effects are reached. The connecting arrows should be upward from the corresponding direct cause to the indirect cause.

Table 4 Examples of possible effects statements in the Pacific region

Sector	Example statements of direct and indirect effects
Disaster risk reduction	• Coastal infrastructure damaged • Biodiversity loss • Increased waterborne diseases
Ecosystem	• Degradation of ecosystem, marine and coastal environments • Biodiversity loss • Reduction of habitats • Disrupted food chain • Shortage of drinking water • Low food production
Food production system	• Food insecurity • Decreased agricultural activities • Unsustainable farming • Reduced income for farmers
Tourism	• Loss of business • Environmental degradation • Decline in cultural resources
Cross-sector	• Adversely affect livelihood of the people • Negatively impact economy • Lack of job opportunities • Forced migration • Increased water-related diseases • Biodiversity loss

| | • Food insecurity |
| | • Loss of land area |

It is unlikely that the first formulation of the problem tree is correct or complete. Problem statements and cause-and-effect links may require factual verification through research or further consultation with stakeholders or technical experts. Different stakeholders may also need to be consulted as new issues are uncovered during the analysis[9].

Tips for developing a problem tree

●

● *There are occasions when the same problem is stated twice within the problem hierarchy. This results in a cause-effect loop; for example, high incidence of poverty may be the cause of malnutrition. It is also the effect of few income earning opportunities. Apart from some exceptions, this should be seen as an indication that the problem analysis needs to be further refined. This is particularly the case when the statements have some similarity.*

● *The problem tree is likely to undergo multiple revisions, especially if you encounter any of the following situations.*

➢ *Problem statements may need factual verification (e.g. are the problem statements true? Do they reflect what is actually happening now?).*

➢ *Cause-effect links may need verification through research or further consultation with stakeholders or technical experts.*

➢ *A second or third key problem may need to be addressed in the analysis to give a full picture.*

➢ *Other stakeholders may need to be consulted as new issues are uncovered during the analysis.*

---

[9] ADB 2020

< Memo >

Chapter 2 Objective analysis

Objective analysis is an approach used to describe the future situation once the identified core problem has been solved. An **objective tree** provides a summary of the desired future situation, including indicative **means** by which the desired result can be achieved.

As with the problem tree, the objective tree should provide a simplified but robust summary of the intended reality. It is a tool to help analyse and present ideas that will be the basis of project design, especially the outcomes, outputs, and activities of the project.

As in problem analysis, the analysis of objectives should be undertaken with key stakeholders. This should help the analysis of setting priorities, assess how realistic objectives can be achieved, and identify additional means that might be required to achieve the desired result[10].

The indicative format of an objective tree is shown in Figure 4, and an example is shown in Figure 5. Similar to that of the problem tree, the format of the objective tree given below is only an example, and therefore, the structure and number of statements should be different according to the problem tree presentation; however, the desired result must be limited to a single statement.

Figure 4 Indicative format of an objective tree

---

[10] European Commission 2004

Figure 5 Example of an objective tree
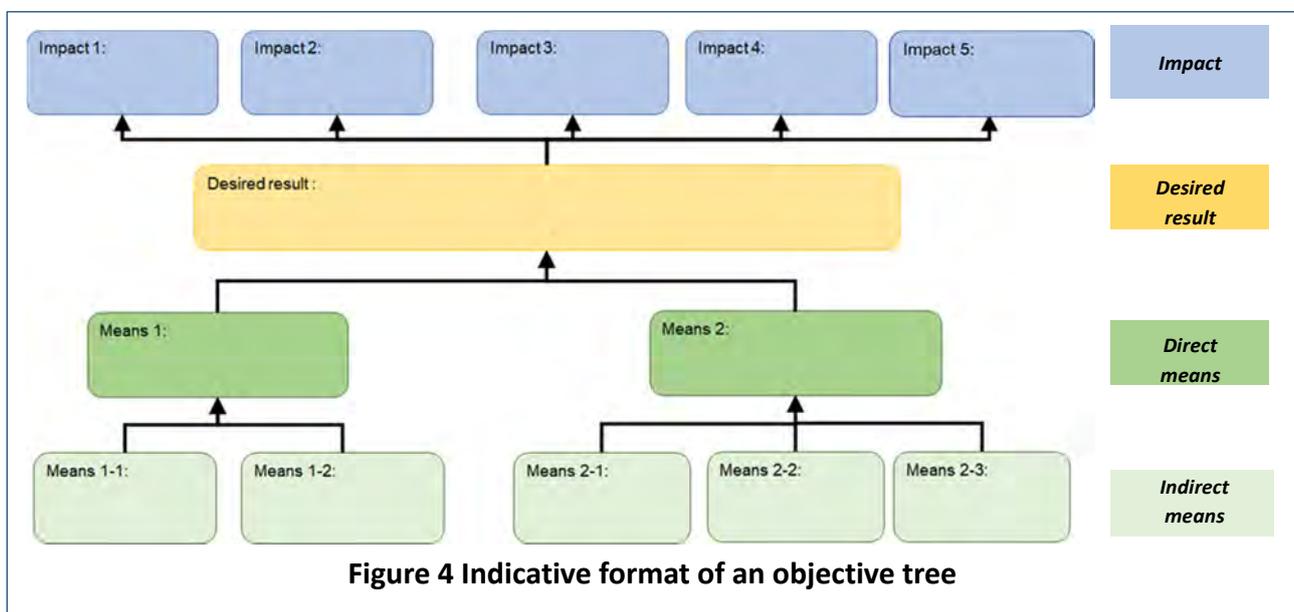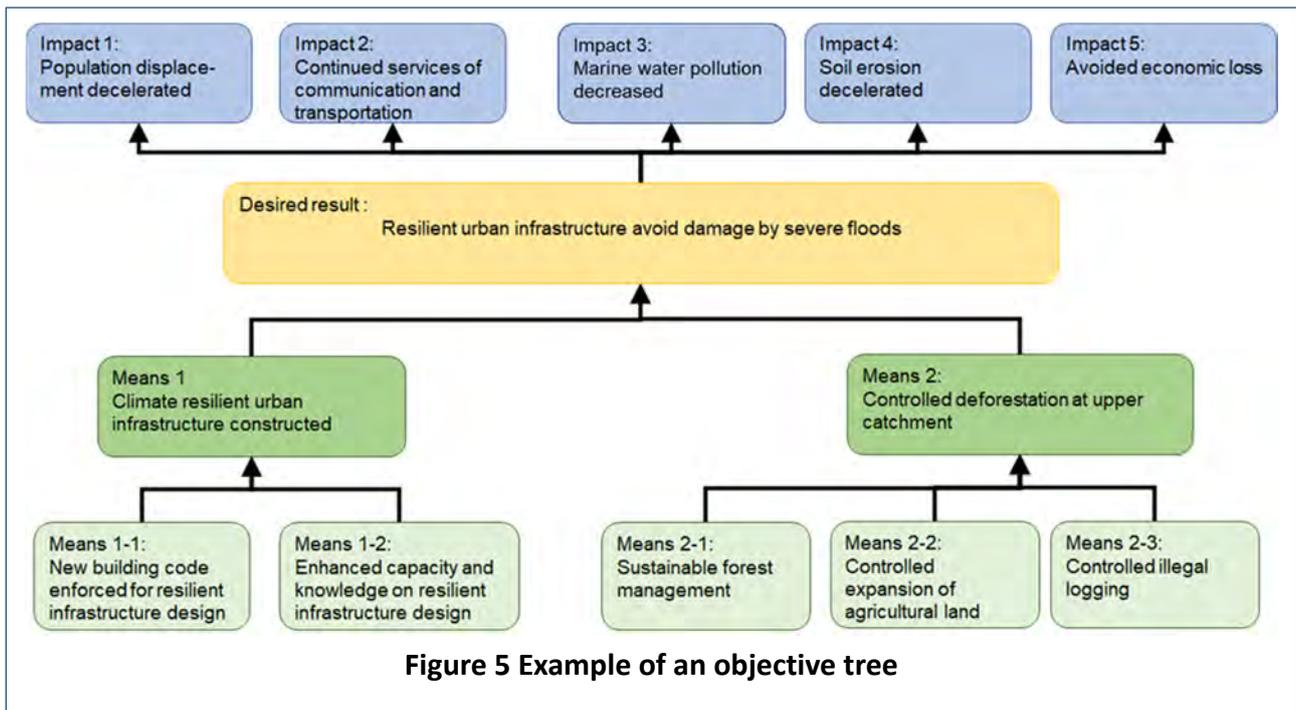
The analysis of objectives is taken in the following **three steps**:

Step 1: Convert negative into positive.

Step 2: Check the means results relationship.

Step 3: Refine the objective tree.

Step 1: Convert negative into positive

The first step is to convert all relevant *negative* statements in the problem tree into *positive* statements that describe desirable and realistically achievable situations.

The negative situations described in the problem tree, including those statements of core problem, direct and indirect causes and effects, are converted into solutions and expressed as positive achievements. For example, '*river water quality is deteriorating*' is converted into *'quality of river water is improved.'* These positive achievements are objectives, and are presented in an objective tree showing a means-ends hierarchy.

A core problem in the problem tree becomes a **desired result** in the objective tree, while the causes of the problems become **means** to achieve the desired result. Similarly, the effect of the core problem is converted into the **impact** of the desired result (see Figure 6 below). Therefore, solving the core problem will provide the desired result at the end of the project, and this result will contribute to other positive outcomes and long-term impacts.

Note that some statements cannot be converted into positive statements as those statement might

describe something that cannot be realistically carried out or achieved by a single project. For example, physical changes such as sea level rise, increasing rainfall, and intensive cyclones cannot be immediately controlled through project intervention. Such statements do not need to be listed in an objective tree.

Figure 6 Converting a problem tree into an objective tree
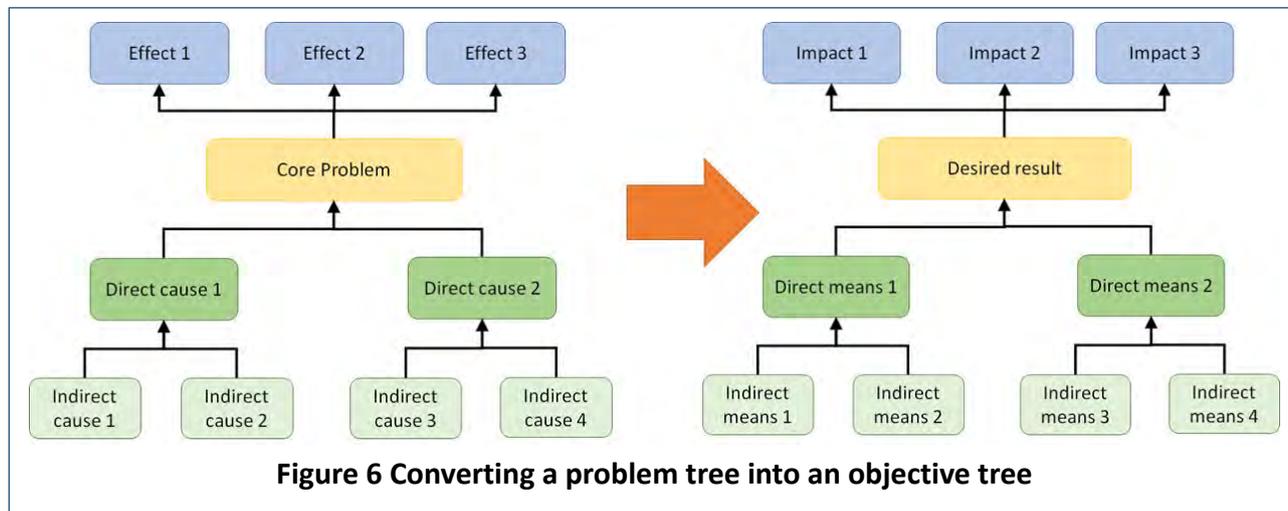
Table 5 Example of statement conversion

Negative statement (problem tree)		Positive statement (objective tree)	
• Adversely affect livelihood of the people • Coastal infrastructure damaged	Effect	• Improved livelihood of the people • Limited damage to coastal infrastructure	Impact
• Food insecurity in rural subsistence farming communities • Degraded coastal and riparian environment	Core problem	• Enhanced food security in rural subsistence farming communities • Improved coastal and riparian environment	Desired result
• Poor infrastructural planning along the coastal area • Lack of knowledge on climate change impacts by community	Cause	• Enhanced infrastructural planning along the coastal area • Improved knowledge on climate change impacts by community	Means
• Sea level rise • Increasing rainfall • Intense and frequent cyclones	Cause	• No conversion required	-

Step 2: Check the means-results relationships

Check the relationship between means and results to ensure the validity and completeness of the hierarchy (cause-effect relationships in the problem tree are converted into means-results linkages in the objective tree). Check that the direction of each arrow correctly shows the logic.

Step 3: Refine the objective tree

Where necessary, revise the results statements, add new objectives (means) if they seem to be relevant and necessary to achieve the desired result, and delete objectives that do not seem suitable or necessary.

Once the objective tree has been completed, place the problem tree and objective tree side-by-side, then observe and check if anything has been missed or if a specific cause/effect or means/impact is too minor to be included.

Tips for refining an objective tree

- *The quality of the objective tree depends largely on the quality of the original problem tree. Bear in mind that the original problem tree was the product of a consensus of opinions, and that the problem statements and cause-effect links should have been verified prior to its finalisation.*
- *If the logic of the first draft of the objective tree is patchy, return to the problem tree, re-examine the cause-effect links, and test the validity of the problem statements before returning to the objectives analysis.*
- *When reviewing the objective tree, check if the means will have major negative effects (e.g. a new hydropower dam will result in a large number of people being resettled). Consider other options to achieve the objective where appropriate.*
- *During this project identification stage, a range of open-ended questions may arise about the political, socioeconomic, environmental, or technical feasibility of the various objectives. These need to be clarified and resolved as much as possible prior to finalising the design.*

< Memo >

Chapter 3 Alternatives analysis

Alternatives analysis, also referred to as result chain analysis, is the second analytical tool used in project identification. This tool is used to (i) identify alternative means of achieving the desired result or objective, (ii) assess the feasibility of each alternative means, and (iii) agree on a project strategy by key stakeholders. The alternatives analysis can be combined with the objective analysis[11].

The objective tree that you have developed may contain a few or numerous courses of action that can be taken to achieve the desired result. However, owing to limited resources, not all components and actions can be undertaken under one project. In this case, certain components of the objective tree should be prioritised. Alternatively, you may have found the kernel for an additional project.

This prioritisation and selection may be quite difficult and challenging, since you need to synthesise all the discussions you had in developing the problem tree and objective tree, and then make a complex judgment about the best strategy to pursue. You may have to frequently make compromises to balance the interests of different stakeholders, political demands, and practical constraints, such as human and financial resource availability[12].

Figure 7 Concept of alternatives analysis (ADB)
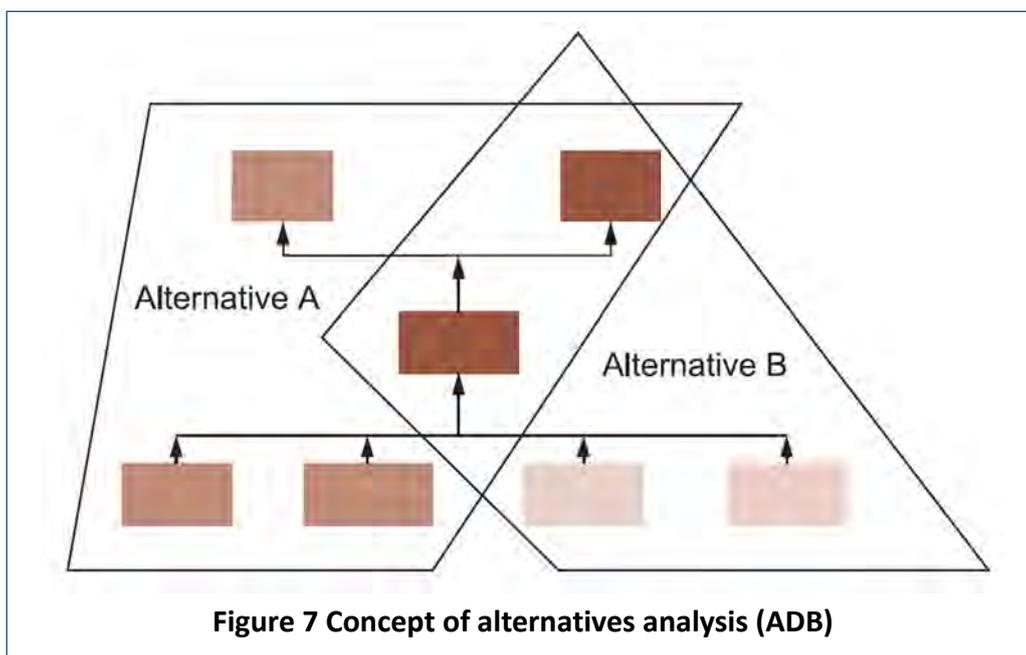
In determining a project scope, start by asking the following questions[13].

---

[11] ADB 1998
[12] European Commission 2004
[13] European Commission 2004

- Should <u>all</u> the identified problems and/or objectives be tackled, or a selected few?
- Which ones are likely to have the best return or impact from the expected finance?
- What are the <u>positive opportunities</u> that can be built on?
- What combination of interventions is most likely to bring about the <u>desired results</u> and promote the sustainability of benefits?
- How <u>is the local ownership</u> of the project best supported, including the capacity development of the local institutions?
- What are the likely capital and recurrent <u>cost implications</u>, and what can be realistically afforded?
- What is the most <u>cost-effective</u> option(s)?
- Which strategy most positively impacts the needs of the poor and other identified <u>vulnerable group</u>s?
- How can potential negative <u>environmental impacts</u> best be mitigated or avoided?

The selected strategy will be the basis of the next step of project planning, the formulation of a **logical framework**, which is particularly useful in identifying the project outcome and outputs.

An example of an alternatives analysis is shown in Figure 8 for an objective tree on infrastructure damage by flood[14].

---

[14] European Commission 2004

Figure 8 Selection of project scope/alternatives from the objective tree
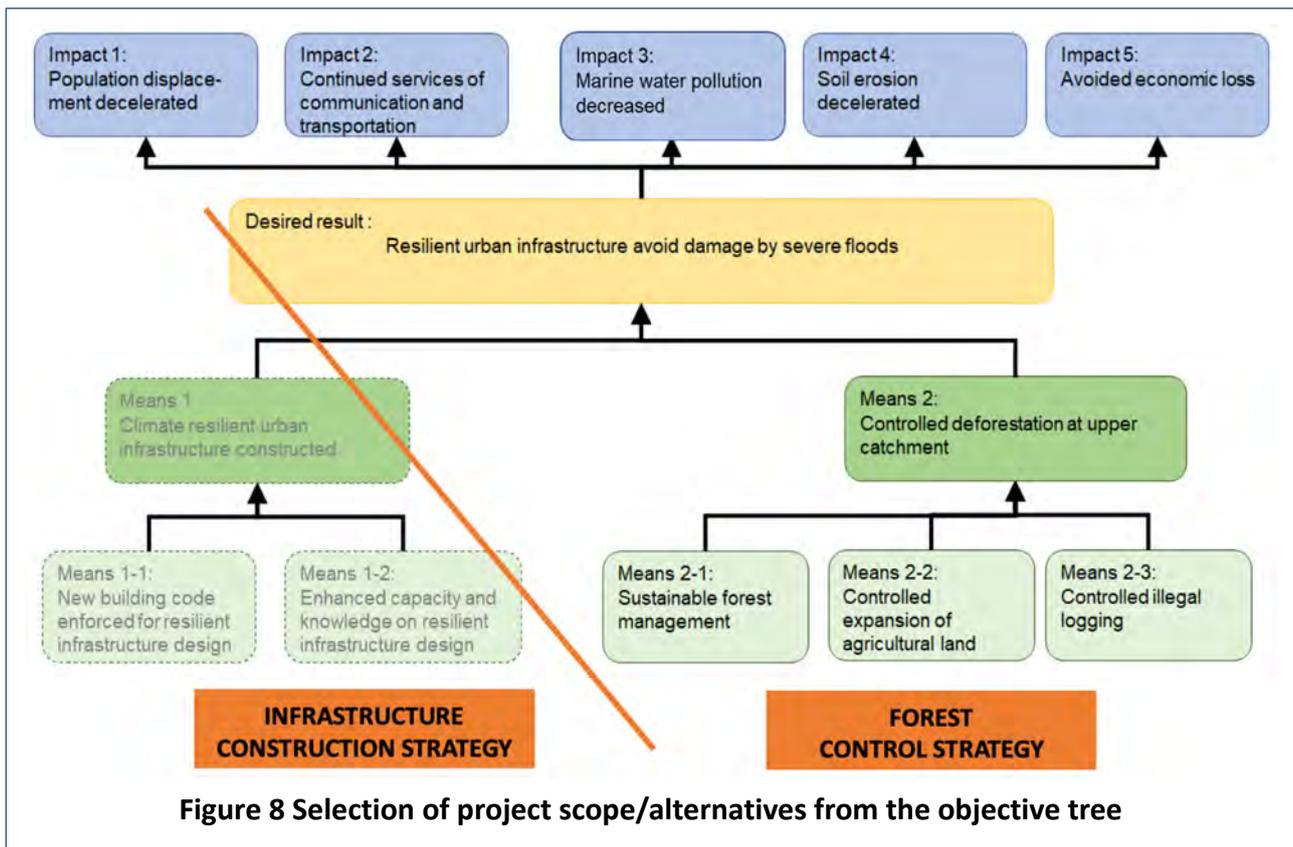
This example objective tree contains two major components that can lead to the desired result of avoiding flood damage to urban infrastructure: the construction of climate-resilient infrastructure, and the control of deforestation. After alternatives analysis, a choice can be made, for example, to focus the project primarily on a forest control strategy and exclude an infrastructure construction strategy. This choice can be derived from, for example:

● another related project that is being undertaken (for infrastructure construction or development of new building codes);

● the positive or better cost-benefit analysis (of forest control);

● the possibility of a programmatic approach rather than a single project approach;

● the enthusiasm of local governments to improve their ability (to manage forests in a sustainable manner); and

● indicative budget ceilings that require a choice regarding priorities for external support[15].

---

[15] European Commission 2004

< Memo >

Chapter 4 Logical framework

All project ideas must clearly and concisely explain what the project intends to accomplish. This can be achieved using a **logical framework**, which is an explicit statement of the results expected from a project/programme/development strategy. It captures the essential elements of the logic of how the project inputs and activities will lead to the outputs, which in turn will lead to the outcomes and ultimately the goal (or desired result). This is displayed in the form of a matrix or summary table.

Many donors, development agencies, and funds, including those focused on climate change, require a logical framework as an integral part of project proposals or project documents. The logical framework is also known as a project framework, project decision matrix, results framework, logic model, outcome mapping, or design and monitoring framework in different organisations.

Format of logical framework

Different organisations use different formats and languages for the logical framework, but the overall structure is similar. The standard logical framework consists of the following elements:
- columns (vertical) –
  narrative summary, indicators (performance targets), means of verification (monitoring mechanisms), and assumptions (and risks);
- rows (horizontal) – impacts (goal), outcomes (purpose), outputs, activities, and inputs.

All frames in the logical framework are hierarchically and logically related, vertically and horizontally. Inputs allow activities to be carried out to deliver project outputs, which in turn will meet the outcomes (immediate purpose) of the project and contribute to the longer-term impacts, goals, or desired result.

Table 6 Information contained in the logical framework[16]

Narrative summary	Indicators	Means of verification	Assumptions/Risks
Impacts/goals/objectives The broad development impact to which the project contributes – at a national or sectoral level.	It measures the extent to which a contribution to the Impacts has been made. Used for evaluation. It is often not appropriate for project itself to collect this information.	Sources of information and methods used to collect and report it (including who and when/how frequently).	
Outcome/purpose The development outcome	It helps answer the	Sources of information and	Assumptions (factors

---

16 European Commission 2004

Narrative summary	Indicators	Means of verification	Assumptions/Risks
at the end of the project, that is, the expected benefits to the target group(s).	question, 'How will we know if the outcome has been achieved?' should include appropriate details of quantity, quality, and time.	methods used to collect and report it (including who and when/how frequently).	outside control of the project management) that may impact the outcome-Impact linkage.
Outputs The direct and tangible results (goods and services) that the project delivers and are largely under control of the project.	It helps answer the question, 'How will we know if the outputs have been delivered?' and should include appropriate details of quantity, quality, and time.	Sources of information and methods used to collect and report it (including who and when/how frequently).	Assumptions (factors outside control of the project management) that may impact the output-outcome linkage.
Activities The tasks (work programme) that need to be carried out to deliver the planned outputs.	(Description of each activity and sub-activity)		
Inputs A summary of resources/means to operate the activities.	(Description of inputs)		

Steps to formulate a logical framework

When considering the logical structure of the first column of the logical framework (**narrative summary**), it is often easy to present it considering the objective tree you have developed, as shown in the figure below[17]. This clearly demonstrates the hierarchical relationship between means and ends.

Figure 9 Relationship between objective tree and logical framework

---
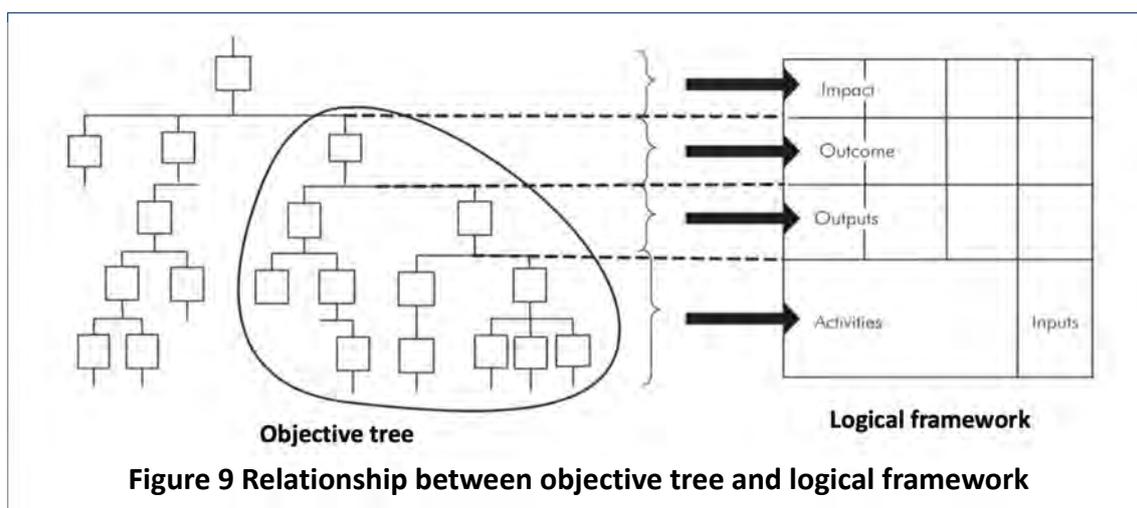
[17] ADB 2007

A logical framework is also best constructed through a **participatory approach** involving the relevant stakeholders involved in the previous steps of problem analysis, objective analysis, and alternatives analysis. Development partners or donors should be heavily engaged in this process. A workshop approach supported by a skilled facilitator is typically undertaken. Workshops provide an opportunity for all stakeholders to present their ideas and findings and to build a consensus and ownership of the final project design. Workshop planning usually requires a few days.

Although there are no standard steps to complete the matrix, a general approach starts with the narrative summary (top-down), then the assumptions (bottom-up), followed by the indicators, and then means of verification (working across), as shown in the figure below.

Table 7 Indicative sequence of completing matrix[18]

Narrative Summary	Indicators	Means of Verification	Assumptions
Impacts ①	⑨	⑩	⑧
Outcome ②	⑪	⑫	⑦
Outputs ③	⑬	⑭	⑥
Activities ④			
Inputs ⑤			

The definitions and instructions for each element of the logical framework are provided below[19]. Note that the table and numbers on the left side show the indicative sequence to complete the matrix shown in the above table.

Narrative summary

The first column summarises the logic of the means-ends of the proposed project.

The process of building this if-then hypothesis is based on the comprehension of the current situation that is gained by looking at cause-effect relationships involved in problems facing the target group, as done through problem analysis. The more realistic the hypothesis, the better the project plan.

Impacts/goals

The **impact,** overall goal, or desired result is the long-term effect that is expected to be attained through the implementation of a project.

[18] European Commission 2004
[19] ADB 2020; European Commission 2004; JICA 2010; USAID 2017

An example of an impact statement is *'Family health and the general health of the riverine ecosystem is improved'.* A good impact statement is short, clear, and specifies the kind of impact expected along with the target group of beneficiaries.

> ### *Tips for developing impact statement*
> - *Ensure that there is a direct means-ends relationship between the impact and the outcome.*
> - *Clearly state a desired result, and do not phrase an action such as 'to develop'.*
> - *Do not summarise the logic of the project by using connecting words such as 'through', 'by', or 'for'.*
> - *Express the expected beneficial consequences or impact on a defined group of people, reflecting that development is about conferring benefits on people.*
> - *Describe results that can be measured.*

Outcome/purpose

The **outcome** or project purpose is the direct effect on the target group that will be achieved through project implementation.

The project outcome describes what the project intends to accomplish by the end of the implementation (as opposed to the Impact, which is focused on medium- and long-term changes). The outcome also clearly states the problems that the project will address.

The phrasing of the outcome statement determines the nature and scope of the outputs that are necessary. Outcome statements generally describe the change in behaviour of the beneficiaries of the project, but can also describe performance changes in a system, organisation, or institution.

Outputs

Outputs are physical and/or tangible goods and services produced by the project toward the achievement of the outcome.

As opposed to the outcome, which indicates a positive change for beneficiaries, the outputs refer to items produced by the project implementers. For example, looking at a project that focuses on training, the '*implementation of training*' is an output, while the project outcome can be '*improved capacity and knowledge of trainees*'.

Activities

Activities refer to a series of necessary actions taken to produce the outputs by utilising the **inputs**. Note that the logical framework should provide an overview of the project. More detailed information on the project, such as action plans, cost information, and schedule, should be prepared separately.

Various types of activities can be undertaken under a climate change project as a conventional development project, such as formulation/improvement of laws, policies, plans, regulations, standards, institutional setup, installation/rehabilitation of hard infrastructure, and capacity building.

Tips for developing a list of activities

- *List only the activities that are key in producing the outputs.*
- *Start with an active verb in the present tense (e.g. 'conduct', 'establish', 'construct').*
- *Do not restate your output as an action.*
- *Include only the activities that are feasible and realistic given the available inputs.*
- *Include project management activities as appropriate, such as procuring goods, hiring consultants, reporting, monitoring, evaluation, accounting, and auditing.*
- *Do not include indicators at the activity level*

Inputs

Inputs refer to resources such as personnel, materials and equipment, operational expenses, facilities, data, and information required to implement the activities and produce the outputs. The Inputs should be broken down according to who contributes to the Input.

Both inputs provided by financiers/donors and in-kind contributions from relevant stakeholders should be included.

Indicators

Indicators describe a project's objectives in operationally measurable terms (quantity, quality, and time). Indicators are set in response to the question, 'How would we know whether what has been planned is actually happening or happened?'

All indicators should be consistently measurable and at an acceptable cost. Indicators should also be set in accordance with the following (referred as 'SMART' indicators):

- **s**pecific to the objective it is supposed to measure
- **m**easurable (either quantitatively or qualitatively)
- **a**chievable
- **r**elevant to the information needs of managers
- **t**imebound, so we know when we can expect the objective/target to be achieved.

Indicators are set for outcomes and outputs, together with target values for specific measurement of the level of achievement of each of them. Indicators can be quantitative, qualitative, or a mixture of both. It is also important to avoid setting up too many indicators. It is best to minimise the amount of information to be collected to determine whether the objectives are being/have been achieved.

Means of verification

The **means of verification** column contains the source of information/data to collect each indicator. Collected data and information must be highly reliable, obtainable, and inexpensive to obtain. It should be considered and specified at the same time as the formulation of the indicators.

Means of verification should specify the following points:

- **how** the information will be collected, for example, from specific reports, statistics, sample surveys, studies, and observations;
- **who** should collect/provide the information, for example, field workers, survey team, district office, and project management team; and
- **when/in what intervals** it should be provided, for example, monthly, quarterly, and annually

Many donors and development organisations require information on **the baseline** and **target** values/descriptions for the set indicator. The baselines and targets can be described either qualitatively or quantitatively. For example, if the indicator is *the number of households that utilise climate-smart agriculture technology*, the actual numbers should be placed in the baseline (e.g. 500) and target (e.g. 10,000, which should be higher than the baseline).

Assumptions

Projects are not isolated from external events, and are influenced by factors outside the direct control of project management. These factors include political, social, financial, environmental, and institutional factors. These factors can be classified as **assumptions** or **risks**, and should be included in the logical framework, specifically, at least one critical assumption or risk at the impact, outcome, and output levels.

Assumptions are positive statements of conditions, events, or actions necessary to achieve the results. They have a high probability of occurrence. An example of an assumption is *'Migration rates into City A remain consistent with or lower than projections'*.

Risks are negative statements of conditions, events, or actions that would adversely affect or make it impossible to achieve the intended results. They have a low-to-high probability of occurrence. An example of a risk is *'Climate-related disasters may force an increase in migration into City A at a rate beyond projections'*.

Review and refine the logical framework

After all frames are filled in, the logical framework is reviewed. Specifically, the overall 'means-ends' logical relationship of the frames is checked and the framework is refined.

When the hierarchy is read from the bottom to the top, it is expressed in the logic of the 'if-then hypothesis' as follows:

IF adequate inputs are provided, THEN activities can be undertaken;
IF the activities are undertaken, THEN outputs can be produced;
IF outputs are produced, THEN the outcome can be achieved; and
IF the outcome is achieved, THEN it should contribute towards the overall goal.

Reference numbers should be used in the logical framework so that the links between the inputs, activities, and outputs are clearly shown. An example for reference numbering is shown in Figure 10.

Figure 10 Numbering in Logical Framework
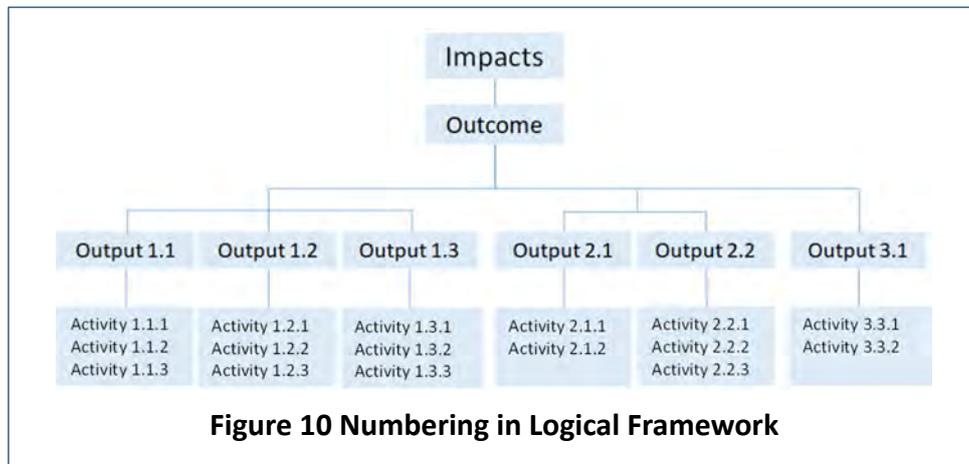
< Memo >

Annex 1 List of tools and analysis methods used to develop the climate rationale of the proposed project

Tool	Applicability	Description
Climate reduction assessment	Adaptation	• A form of participatory impact assessment focusing on community perceptions of vulnerability to climate change and capacity to adapt, which assesses the results of projects using pre-set indicators that measure the reduction in vulnerability and adaptation capacity. • Vulnerability reduction assessment indicators are organised around four key categories: i) description and assessment of current vulnerability; ii) future vulnerability; iii) description and assessment of current adaptation/risk-management projects and strategies; and iv) description and assessment of the system's capacity to adapt in the current environment and into the future.
Climate risk assessment	Adaptation	• Assesses a project's associated risks and opportunities faced under climate change by evaluating climate and weather events (hazards), their magnitude and likelihood of potential consequences (exposure) that may arise from interactions between natural or human-induced climate hazards, and pre-existing conditions (vulnerability). This can be informed by historical events or probabilistic risk models.
Climate risk narratives	Adaptation Mitigation	• Stories that incorporate a range of plausible climate futures to cover possible future conditions. • These should be co-developed with relevant stakeholders, supported by technical climate data, and updated to reflect ongoing interactions between climate and other aspects.
Climate vulnerability and adaptation assessment	Adaptation	• A key instrument to identify and prepare for changing risks. It provides information for decision-makers on the extent and magnitude of likely risks attributable to climate change, as well as suggests priority policies and programmes that can prevent or reduce the severity of future impacts.
Greenhouse gas abatement cost curve	Mitigation	• Plots the abatement cost of various technologies or measures against the quantity of emissions reduced from said technology. • This reveals the least to most expensive technologies or measures, and what marginal GHG abatement they achieve.
Greenhouse gas inventories	Mitigation	• Account for the amount of GHG emissions discharged into the atmosphere. Article 4.1a of the UNFCCC requires that all countries periodically publish and make available to the Conference of the Parties (COP) inventories of anthropogenic emissions and removals by

Tool	Applicability	Description
		• sinks of all greenhouse gases not controlled by the Montreal Protocol. • Project proponents should look for national GHG inventory reports.
Greenhouse gas mitigation assessment	Mitigation	• Involves a national-level analysis of the potential costs and impacts of various technologies and practices that have the capacity to mitigate climate change. • The key goals of this assessment are: i) to provide policymakers with an evaluation of technologies and practices that can both mitigate climate change and contribute to national development objectives; and ii) to identify policies and programmes that could enhance their adoption.
Hazard mapping	Adaptation	• Highlights vulnerable or easily affected areas of a particular hazard. For example, the potential occurrence of a climate or human-induced physical event that can lead to loss of life or structures, injury, damage, etc.
Impact assessment	Adaptation	• Analyses and evaluates data on the impacts of physical events, disasters, and climate change. Aims to identify measures that can reduce possible harm to people or structures, so it stays within the baseline for acceptable risk.
Impact chain analysis	Adaptation	• Provide the chains of cause and effect leading to potential impacts that are relevant to the project's design. • Begin by analysing physical processes (both expected and observed), consider the hazards (both gradual and rapid, directly and indirectly), determine the impacts (both direct and indirect) on ecosystems, human systems, assets, etc.
Technology needs assessment	Mitigation Adaptation	• Assists developing country Parties to the UNFCCC to determine their technology priorities for the mitigation of GHG emissions and adaptation to climate change.
Vulnerability assessment	Adaptation	• Identifies the sensitivities of people and natural impacts, as well as the existing capacities to support adjustments to climate change impacts. • This is done through participatory impact assessment, focusing on community perceptions of vulnerability to climate change and the capacity to adapt.

Source: Fayolle, V. and Dhanjal, M. 2020. Green Climate Fund Proposal Toolkit.

Annex 2 Example of indicators (Green Climate Fund)

GCF sets specific indicators to assess and measure observable **outcomes** of GCF-funded projects/programmes related to climate change mitigation, adaptation, and enabling environment in its integrated results management framework (IRMF).

IRMF sets out the approach of GCF to assess how its investments deliver climate results and how its results contribute to the overall objectives of GCF to promote a paradigm shift towards low-emission and climate-resilient development pathways in the context of sustainable development, and make a significant and ambitious contribution to the global efforts towards attaining the goals set by the international community to combat climate change.

Project proponents are required to first define the project/programme's thematic area (mitigation, adaptation, or cross-cutting) and relevant 'results areas' for each outcome in the project/programme-level logical framework, which in turn is linked to core quantitative **indicators** of the IRMF. Indicators must be selected from the default indicator list, but each project can also add a unique indicator. There are eight results areas, consisting of four mitigation result areas (MRA) and four adaptation result areas (ARA).

Indicators for outcomes on reduced emissions and increased resilience

Indicator	Description	Unit

Core indicator 1	Greenhouse gas (GHG) emissions reduced, avoided, or removed/sequestered
	    Suggested GCF results areas
	    MRA 1: Energy generation and access
	    MRA 2: Low-emission transport
	    MRA 3: Buildings, cities, industries, and appliances
	    MRA 4: Forests and land use
		tonnes of carbon dioxide equivalent

Supplementary indicator 1.1	Annual energy savings	megawatt-hours
Supplementary indicator 1.2	Installed energy storage capacity	megawatt-hours
Supplementary indicator 1.3	Installed renewable energy capacity	megawatts
Supplementary indicator 1.4	Renewable energy generated	megawatts
Supplementary indicator 1.5	Improved low-emission vehicle fuel economy	volume of fuel per kilometre travelled

Core indicator 2	Direct and indirect beneficiaries reached
	    Suggested results areas
	    ARA 1: Most vulnerable people and communities
	    ARA 2: Health, well-being, food, and water security
		number of individuals (disaggregation: sex; and results

Indicator	Description	Unit
	ARA 3: Infrastructure and built environment ARA 4: Ecosystems and ecosystem services	area)
Supplementary indicator 2.1	Beneficiaries (female/male) adopting improved and/or new climate-resilient livelihood options	number of individuals
Supplementary indicator 2.2	Beneficiaries (female/male) with improved food security	number of individuals
Supplementary indicator 2.3	Beneficiaries (female/male) with more climate-resilient water security	number of individuals
Supplementary indicator 2.4	Beneficiaries (female/male) covered by new or improved early warning systems	number of individuals
Supplementary indicator 2.5	Beneficiaries (female/male) adopting innovations that strengthen climate change resilience	number of individuals
Supplementary indicator 2.6	Beneficiaries (female/male) living in buildings that have increased resilience against climate hazards	number of individuals
Supplementary indicator 2.7	Change in expected losses of lives due to the impact of extreme climate-related disasters in the geographic area of the GCF intervention	number of individuals

Core indicator 3	Value of physical assets made more resilient to the effects of climate change and/or more able to reduce GHG emissions
	    Suggested results area
	    All mitigation and adaptation results areas
		value of physical assets in USD (Disaggregation: type of physical assets; and results area)

Supplementary indicator 3.1	Change in expected losses of economic assets due to the impact of extreme climate-related disasters in the geographic area of the GCF intervention	value in USD

Core indicator 4	Hectares of natural resource areas brought under improved low-emission and/or climate-resilient management practices
	    Suggested results areas
	    MRA 4: Forestry and land use
	    ARA 1: Most vulnerable people and communities
	    ARA 2: Health, well-being, food and water security
		hectares (Disaggregation: type of natural resource areas; and results area)

Supplementary indicator 4.1	Hectares of terrestrial forest, terrestrial non-forest, freshwater and coastal marine areas brought under restoration and/or improved ecosystems	hectares
Supplementary indicator 4.2	Number of livestock brought under sustainable management practices	number of livestock
Supplementary indicator 4.3	Tonnes of fish stock brought under sustainable management practices	tonnes

Core indicators for enabling environment

Indicator	Description
Core indicator 5	Degree to which GCF investments contribute to strengthening institutional and regulatory frameworks for low-emission climate-resilient development pathways in a country-driven manner
Core indicator 6	Degree to which GCF investments contribute to technology deployment, dissemination, development or transfer and innovation
Core indicator 7	Degree to which GCF investments contribute to market development/transformation at the sectoral, local, or national level
Core indicator 8	Degree to which GCF investments contribute to effective knowledge generation and learning processes, and use of good practices, methodologies, and standards

Annex 3 Example of logical framework and climate rationale

Title: Vanuatu community-based climate resilience project (VCCRP)

Fund: GCF

Reference: https://www.greenclimate.fund/document/vanuatu-community-based-climate-resilience-project-vccrp

Abbreviations	Description	Abbreviations	Description
CBA	Community-based adaptation	EWS	Early Warning System
CDCCC	Community Disaster and Climate Change Committee	IEC	Information, education and communication
CIS	Climate Information Service	MoCC	Ministry of Climate Change, Vanuatu
DARD	Department of Agriculture and Rural Development	NDMO	National Disaster Management Office, MoCC
DFAT	Department of Foreign Affairs and Trade, Australia	VCCI	Vanuatu Chamber of Commerce and Industry
DoCC	Department of Climate Change	VCCRP	Vanuatu Community-based Climate Resilience Project

LOGICAL FRAMEWORK

Project/programme results (outcomes/ outputs)	Project/programme specific Indicator	Means of Verification (MoV)	Baseline	Target Mid-term	Target Final	Assumptions
Outcome 1						
Output 1.1: Community-based climate change adaptation and disaster risk reduction mechanisms are strengthened	% target communities with functioning CDCCCs	Project reports Survey/questionnaire Gov't records	Approx. 10% target communities	50% target communities	100% target communities	All targeted communities engage in CDCCC formation and formalization
	% target CDCCCs with gender balance	Project reports Survey/questionnaire Gov't records	0	30% target CDCCCs	90% target CDCCCs	CDCCCs leadership open to addressing gender issues
	% target CDCCCs with child/youth engagement	Project reports Survey/questionnaire Gov't records	0	30% target CDCCCs	90% target CDCCCs	CDCCCs leadership open to including youth representation (as mandated) and facilitating child engagement
Output 1.2: Communities have increased understanding of climate change impacts and are supported to develop inclusive local adaptation plans	% target women, men, children and youth with increased understanding of the implications of climate change	Project reports Survey/questionnaire Gov't records	Approx. 15% nation-wide (<25% female)	60% targeted beneficiaries (49% female) (direct and indirect) (120,000 people)	95% total beneficiaries (49% female) (direct and indirect) (190,000 people)	Project effectively reaches all direct and indirect beneficiaries with IEC materials
	% target communities with adaptation plans in place	Project reports Survey/questionnaire	0	50% target communities	100% target communities	All target communities participate in developing and formalizing plans

		Gov't records				
Output 1.3: Communities have increased access to climate information services and early warning systems and the skills to utilise them as adaptation tools	% target CDCCCs with internet connectivity for CIS/EWS delivery	Project reports Survey/questionnaire Gov't records	Approx. 7% nation- wide	30% target CDCCCs	100% target CDCCCs	All CDCCCs are able to be connected and actively transfer information for CIS/EWS
	# target community members with increased understanding of application of CIS to agriculture/fisheries	Project reports Survey/questionnaire Gov't records	720-1,380 people nation-wide (<25% female)	17,500 people (30% female as fishers skew male)	29,210 people (30% female as fishers skew male)	60% of adults/youths reached with CIS training apply it to livelihoods
Outcome 2						
Output 2.1: Local natural resources are more resilient to climate change impacts through implementation of nature-based solutions	# hectares of agricultural and fisheries sites under improved management using nature-based solutions	Project reports Survey/questionnaire Gov't records	0 hectares in target Area Councils	5,800 hectares (approx. 200ha per target Area Council)	11,600 hectares (approx. 400ha per target Area Council)	Targeted communities prioritize nature-based solutions ahead of possible quick but unsustainable gains from destructive farming and resource management habits The project's targeted area is not seriously disrupted by a major climate event affecting better managed sites, before the project interventions are fully implemented
Output 2.2: Climate-resilient agriculture for food security and livelihood development	# target farmers with increased understanding of climate-resilient agriculture practices	Project reports Survey/questionnaire Training report Gov't records	720-1,380 people nation-wide (<25% female)	18,600 farmers (50% female)	31,200 farmers (50% female)	Farmers actively engage in climate-resilient agricultural training initiatives because they perceive benefits in mitigating climate risks and assume positive results in agricultural product pricing, yields and access to inputs
	# target farmers implementing climate resilient agriculture practices	Project reports Survey/questionnaire Gov't records	720-1,380 people nation-wide (<25% female)	14,000 farmers	23,400 farmers	Short term results are sufficiently promising to incentivize farmers to follow through on training and apply principles on farms Market prices for key inputs or outputs in the value chain remain stable The project's targeted area is not seriously disrupted by a major climate event affecting agricultural production, before the project's full implementation of interventions
	% target households in moderate or severe food insecurity (This indicator will also be used to assess progress against Output 2.3)	Project reports Survey/questionnaire Gov't reports	30% of households involved in agriculture, fishing, aquaculture and/or livestock are reported to be food insecure	25% of targeted households in moderate or severe food insecurity (25% of 19,556	15% of targeted households in moderate or severe food insecurity (15% of 19556	The project's targeted area is not seriously disrupted by a major climate event affecting agricultural or fisheries production, before the project's full implementation of interventions Target populations/household

			(30% of 19556 HHs = 5867 HHs food insecure)	HHs = 4,889 HHs food insecure)	HHs = 2933 HHs food insecure)	numbers and food supply logistics remain stable through project implementation
Output 2.3: Climate-resilient fisheries for food security and livelihood development	# target fishers with increased understanding of climate-resilient fisheries practices	Project reports Survey/questionnaire Training report Gov't records	720-1,380 people nation-wide (<10% female)	5,400 fishers (30% female as fishers skew male)	9,000 fishers (30% female as fishers skew male)	Fishers in targeted communities adopt an open-minded rather than sceptical outlook to active engagement in climate-resilient fisheries training opportunities
	# target fishers diversifying fisheries resources	Project reports Survey/questionnaire Gov't records	Approx. 2,000 people nation-wide (<5% female)	4,000 fishers	6,800 fishers	Fishers in targeted communities reached follow-through on training received by applying principles to diversify livelihoods Market prices for key inputs or outputs in the value chain remain stable The project's targeted area is not seriously disrupted by a major climate event affecting fisheries production, before the project's full implementation of interventions
Output 2.4: Women-led climate-resilient food processing and preservation established to support food security and diversification of livelihoods options	# communities using food preservation technologies	Project reports Survey/questionnaire Gov't records	<5 in target Area Councils	0 communities (distribution to occur in years 4 and 5)	261 communities	Targeted communities follow-through on food preservation training received, by adopting and utilizing adaptation technologies Market prices for key inputs or outputs in the value chain remain stable
	# target women-led producer groups collaborating to access new markets	Project reports Survey/questionnaire Gov't records	Producers in 35 communities nationally (20% female)	Producer groups in 50 communities (100% female)	Producer groups in 90 communities (100% female)	Communities utilizing preservation techniques see the value of forming producer groups and mobilizing them accordingly No disinformation campaigns that work against the new formation of producer groups Markets remain intact and are not disrupted by economic downturns or shocks
	% target households participating in producer groups that report increased incomes	Project reports Survey/questionnaire Gov't reports	0%	30% producer group households report increased incomes	50% producer group households report increased incomes	Producer groups are established and functional and can effectively access markets Household income increases relating to the current median household income in rural areas is VTU 52,269 per month (USD 471)
	# partnerships facilitated between producer groups and private sector entities	Project reports Survey/questionnaire Partnership agreements/ MoUs	0	4 partnerships	6 partnerships	National private sector entities realize the value of climate resilient food production and supply chain benefits

A-8

			secured through coordinated local food production and see value in engaging with remote/rural producer groups

Outcome 3

Output 3.1: Adaptive local governance systems strengthened through sub-national planning	# Area Council staff with increased capacity to integrate climate change into planning and budgeting	Project reports Survey/questionnaire Training report Gov't records	0 No systematic Area Council capacity building initiatives	80 people	145 People	Obstacles, such as transport logistics, time availability or different expectations from other staff, are mitigated, so that at least 5 staff per targeted Area Council engage in training
	Shock-responsive social protection system developed and tested (via DFAT co-finance)	ANCP project reports Gov't records	0 No social protection system	Social protection system designed	Vulnerability criteria tested	DFAT co-financed project is sufficiently linked to VCCRP Social protection system designed in accordance with best practice and subnational context-specific needs
Output 3.2: Enhanced local-provincial-national linkages through knowledge management and creation of feedback loops	# knowledge products disseminated nationally, regionally and globally	Project reports Knowledge products	0	25 knowledge products	40 knowledge products	Agreement reached by key stakeholders on what knowledge products require and how these need to be communicated to ensure uptake and application Knowledge products are available and accessible to all key stakeholders
	# local-provincial-national stakeholder forums convened	Project reports Survey/questionnaire Attendee list and meeting minutes Gov't records	0 No formalized process for adaptation knowledge management	2 forums	6 forums	Key stakeholders at national, subnational and local levels understand climate risk and the need for climate resilient practices to be amplified

Project/programme activities and deliverables			
Activity	Description	Sub-activities	Deliverables
Component 1: Government, civil society and communities are strengthened to support local resilience to climate change impacts, including by providing access to climate information and early warnings			
Output 1.1: Community-based climate change adaptation and disaster risk reduction mechanisms are strengthened			
Activity 1.1.1 Establish CDCCCs (where necessary) and build their capacity, including strengthening social inclusion and gender-balance	Establish new, or strengthen existing, CDCCCs and build their capacity, including strengthening social inclusion and gender-balance.	1.1.1.1 DoCC develops and field-tests CDCCC status assessment tool in partnership with DLA and NDMO 1.1.1.2 Assess CDCCC status using field-tested tool (where CDCCC are established, evaluate gender-balance, engage children/youths and people with disabilities, and consult with community to identify opportunities to strengthen CDCCC) 1.1.1.3 Support the development of CDCCCs as necessary based on the findings of 1.1.1.2, including, where needed, CDCCC kits and community workspace	Assessments of CDCCC in all target communities 100% of target communities have new or strengthened CDCCCs Activities to strengthen CDCCCs including social inclusion and gender balance in at least 90% target communities Gender balance in CDCCCs in at least 90% target communities People with disability represented on CDCCC in at least 60% target communities Youth representatives on CDCCC in at least 80% target

			communities 50% participants in education and training sessions are women
Activity 1.1.2 Increase CDCCC member capacity to identify climate change and disaster risks at the local level	Increase the capacity of CDCCC members in effectively identifying climate and disaster risk.	1.1.2.1 Conduct leadership and technical (DRR/CCA) training with CDCCCs, based on needs identified in 1.1.1.2 1.1.2.2 Conduct targeted training for women in leadership and children/youth engagement in CDCCCs and adaptation planning processes 1.1.2.3 Conduct follow-up refresher training 1 year after initial training with CDCCCs as well as regular monitoring/support visits 1.1.2.4 Establish communication channels through SMS or social media for CDCCCs to request information/support from NDMO/Provincial Disaster Officers in leading community education sessions	CDCCC digitized train-the-trainer sessions conducted in at least 90% of target communities At least 90% of target communities receive community-education sessions At least 80% of target CDCCCs receive refresher training (years 2 onwards) Scaled-up access to information for rural communities through newly established communication channels in 29 Area Councils
Output 1.2: Communities have increased understanding of climate change impacts and are supported to develop inclusive local adaptation plans			
Activity 1.2.1 Community awareness raising on climate change risks to food systems, livelihoods and disaster risk via targeted IEC materials and information sessions managed by Area Council Climate Change Officers and CDCCCs	Build awareness in target communities on climate change and disaster risks to food systems and livelihoods	1.2.1.1 Review existing climate change education and awareness raising materials available at the local level to identify gaps and opportunities for improvement 1.2.1.2 Building on existing efforts by MoET and MoCC to develop standardised participatory climate change education and awareness raising materials and key messages on climate change risks to food systems, role of habitats in supporting fisheries, livelihoods and disaster risk 1.2.1.3 Conduct best practice adult learning approaches to digitized train-the-trainer sessions with Area Council Climate Change Officers and CDCCCs using materials designed in 1.2.1.2 (delivered in tandem with 1.1.2.1 and 1.3.2.2) 1.2.1.4 Disseminate digital and paper-based awareness materials and extend training through local officers, CSOs and communication networks, as well as through participation in public events that provide outreach opportunities 1.2.1.5 Facilitate face-to-face knowledge exchange events with local community representatives, area council representatives and sub-national government officials and representatives to help ensure local issues are considered in sub-national/national adaptation planning processes (linked to 3.2.2.3)	Updated/new community awareness materials on climate change and disaster risks to food systems, livelihoods and disaster risk 5 local officers trained in each Area Council (145 total) on delivering awareness on climate change risks to food systems, livelihoods and disasters Extension of awareness materials and messages through local offices, CSOs, networks and related project activities to be undertaken in at least 95% of target communities and 29 Area Councils to scale-up further At least 95% of target communities receive community awareness sessions 144 community awareness media broadcasts/posts on climate change risks and impacts delivered to public via media sources
Activity 1.2.2 Identify key local issues that drive climate vulnerability and use this to develop local adaptation plans and measure program impact	Support identification of key challenges and barriers that drive climate vulnerability to inform development of local adaptation plans.	1.2.2.1 Build capacity of Area Council climate change officers in community profiling and documenting local vulnerabilities (consistent with National Vulnerability Assessment Framework, GESI principles and child/youth inclusive approaches) 1.2.2.2 Conduct participatory community profiling and documenting of local vulnerabilities to record the key local issues that drive climate vulnerability to inform the development of Community Adaptation Plans 1.2.2.3 Conduct rapid baseline biophysical and ecological surveys of key natural resources (habitats and species) that support food security and livelihoods and help measure program impacts (including technical assessments of threats to watersheds, erosion hotspots, mangrove and reef health checks, fish catch surveys, invasive species, agricultural pests and diseases) 1.2.2.4 Conduct household socioeconomic surveys to document resource dependence and important natural resources to inform local adaptation actions	At least 90% of target Area Councils participate in technical training on facilitating community profiling and documenting local vulnerabilities Baseline report for biophysical and ecological condition for at least 90% of target communities and 29 Area Councils to scale-up Baseline report for household-level socioeconomic status and resource dependence for at least 90% of target communities and 29 Area Councils to scale-up

Activity 1.2.3 Development of inclusive Community Adaptation Plans and identification of key resilience building actions (selected from adaptation package menu)	Facilitate development of Community Adaptation Plans and identification of key climate resilience building actions from the VCCRP 'adaptation package' of interventions.	1.2.3.1 Sub-national government/CDCCCs facilitate participatory stakeholder engagement processes to develop Community Adaptation Plans, based on the data collected via activity 1.2.2, which identify immediate and mid-term adaptation actions to address current and projected climate change risks 1.2.3.2 Sub-national government/CDCCCs and diverse community representatives to select the highest priority and locally appropriate adaptations from the VCCRP 'adaptation package' (Component 2) that are socially acceptable, avoid adverse environmental and social impacts, and address the main drivers of climate vulnerability 1.2.3.3 Finalise Community Adaptation Plan, including key priority activities for implementation by VCCRP and future activities. Validate with community members and Area Council officials and update on a 3 year cycle	100% of target communities develop Community Adaptation Plans and prioritize interventions from VCCRP adaptation package 100% of Area Councils participate in Community Adaptation Plan processes At least 60% of target communities update Community Adaptation Plans during project lifetime
Output 1.3: Communities have increased access to climate information services and early warning systems and the skills to utilise them as adaptation tools			
Activity 1.3.1 Develop and distribute CIS IEC products to support community adaptation awareness raising and adaptation planning processes	Development and distribution of CIS IEC products to inform community-level climate change adaptation planning processes, including enhanced connectivity for CDCCCs. CIS products and knowledge management materials will be developed (including print, digital, audio, and mixed-media) for use in target communities in partnership with national authorities (including NDMO and VMGD), building on materials developed through Van- KIRAP (FP035).	1.3.1.1 Conduct best practice review and baseline study of existing access to EWS in high-risk communities (undertaken in conjunction with 1.2.2) 1.3.1.2 Enhance community EWS infrastructure where gaps exist (installation of small rooftop satellite dishes) and establish system for CDCCCs to on-sell data capacity to cover costs 1.3.1.3 Support CDCCCs to conduct participatory community meetings with an emphasis on the participation of elderly community members to identify, share and capture traditional knowledge for early warning of disaster or weather extremes related to agriculture or fisheries 1.3.1.4 Deliver CIS products and materials to communities from the Van-KIRAP and NDMO/VMGD projects identifying opportunities to further extend tailored materials for community-level use in target communities. In support of 1.2.1.2 1.3.1.5 Disseminate climate information to target communities through a range of media, including printed materials, social media, text messages and radio (e.g. radio drama). Linked to 1.2.1.4	At least 90% of CDCCCs undertake baseline assessment of existing access to EWS and CIS At least 90% of CDCCCs have solar PV systems and internet connectivity with system for on-selling data for financial sustainability At least 90% of target communities and 29 Area Councils (to scale-up) reached with delivery of CIS materials and resources 660 CIS communications through social media, text messages, radio and other media
Activity 1.3.2 Build capacity of Area Council Climate Change Officers and CDCCCs to effectively utilize CIS in community planning processes	Activity 1.3.2 will strengthen the capacity of Area Councils and CDCCCs in the use of CIS resources and information to inform community- level planning processes. Collaboration on delivery of CIS technical training with Van- KIRAP (FP035) and national authorities (VMGD and NDMO) will avoid duplication of efforts.	1.3.2.1 Optimise training materials that specifically address community needs and are tailored to community-level understanding of climate change, including integration of GESI considerations and child/youth inclusive approaches (extending CIS delivery from FP035) 1.3.2.2 Train local Area Council Climate Change Officers/CDCCCs to deliver community training on accessing and using climate and early warning information, in conjunction with 1.2.1.3 1.3.2.3 Conduct community trainings on accessing and using climate information relating to fisheries, agriculture and disaster preparedness through CDCCCs building on increased community understanding of climate change from 1.2.1	Training materials and resources developed (including testing through VDPA) CIS/EWS training conducted in 100% of target communities and 29 Area Councils to scale-up Review of CIS-EWS use and future needs in at least 60% target communities in 29 Area Councils (from year 2)
Component 2: Scalable, locally appropriate actions are implemented to meet community adaptation needs to create climate-resilient, sustainable development pathways			
Output 2.1: Local natural resources are more resilient to climate change impacts through implementation of nature-based solutions			
Activity 2.1.1 Support adaptations that strengthen or	Deliver community-based education on coastal and upland resource management; develop coastal and upland resource management plans;	2.1.1.1 Deliver community education and awareness raising on coastal and upland resource management 2.1.1.2 Conduct planning workshops with sector stakeholders for development	Education sessions delivered in at least 90% of targeted communities Community-led coastal and upland resource management

rehabilitate coastal protection barriers, reduce risk of flood/landslides and improve water-security through nature-based solutions	establish living barriers; support reforestation of damaged forests and water catchments; manage invasive vine species impacting watersheds; and establish new / strengthen existing community conservation areas.	of community-led coastal and upland resource management plans (including cooperation between communities for cross-boundary resources) – drawing in information from 1.2.2 2.1.1.1. Resulting plans will form a component of the Community Adaptation Plans under 1.2.3 2.1.1.3 Establish living barriers (vetiver and/or native trees) to storm winds, erosion or landslide zones to fortify slopes and reduce erosion 2.1.1.4 Support reforestation of damaged forests and water catchments using native species (including native coastal vegetation) and micro check dams for erosion control and groundwater recharge 2.1.1.5 Management of invasive vine species that impact on watersheds 2.1.1.6 Establish or enhance traditional tabu areas for conservation of forest resources, including biodiversity	plans developed in at least 90% of target communities 29 tree nurseries established 11,600 hectares of agricultural and fisheries sites under better management using nature- based solutions
Activity 2.1.2 Introduce/scale up improved agriculture methods to minimise erosion and reduce impact of pests and diseases	Support agriculture technical officers at DARD to develop, produce, and deliver training and education materials on climate-resilient agricultural practices; develop and implement site-specific strategies to combat soil erosion; establish field demonstrations; distribution of trees and plants to prevent erosion and tools to support implementation.	2.1.2.1 Develop and provide training and education materials on climate-resilient agricultural methods to minimise erosion and facilitate groundwater recharge 2.1.2.2 Support communities to develop site- specific strategies to combat soil erosion and loss and facilitate groundwater recharge 2.1.2.3 Establish field demonstrations sites for soil erosion minimisation methods and facilitate groundwater recharge 2.1.2.4 Distribute preventive species for erosion control, including establishing Area Council, agro-forestry nurseries, and tools to support implementation (coordinated with 2.2.2.3)	15,645 farmers attend training on climate- resilient agricultural methods and erosion management (at least 50% of attendees are women and ensuring inclusivity for people with a disability) Erosion management demonstration sites developed in at least 90% targeted communities 29 rehabilitated erosion hot spots to reduce soil erosion and sedimentation to coastal areas and scaled-up through Area Council extension
Activity 2.1.3 Support communities to protect and rehabilitate habitats that support fisheries, particularly degraded coral reefs, seagrass meadows and mangroves	Support provincial fisheries officers to develop, produce, and deliver training and education materials on mangrove and reef health, sustainable fisheries practices and coastal zone management; implement protections for local coastal habitats (including reduced mangrove clearing, limited reef gleaning); establish new / enhancing existing 'tabu' areas for environmental conservation (including freshwater resources, reef fisheries); rehabilitate key degraded coastal resources (including mangroves, seagrass meadows and coral reefs).	2.1.3.1 Develop and provide training and education materials on mangrove and reef health, sustainable fisheries practices and coastal zone management 2.1.3.2 Engage communities to establish priority areas and targets for action 2.1.3.3 Establish or enhance traditional tabu areas for conservation of coastal resources and freshwater resources (if applicable), building on 2.3.1.1 2.1.3.4 Where relevant, rehabilitate degraded mangroves, seagrass meadows and coral reefs 2.1.3.5 Management of climate-driven invasive species (i.e. crown of thorns starfish)	282 education sessions on mangrove and reef health, sustainable fisheries practices and coastal zone management 11,600 hectares of agricultural and fisheries sites under better management using nature- based solutions
Output 2.2: Climate-resilient agriculture for food security and livelihood development			
Activity 2.2.1 Support adaptations to traditional farming methods to increase climate-resilience and increase food security	Support DARD technical officers to develop and implement training materials on climate-resilient agriculture and water conservation techniques (including intercropping, seed selection, grafting techniques, and planting management); establish field demonstration sites to showcase climate-resilient agriculture methods using a participatory learning approach.	2.2.1.1 Confirm and document what existing and traditional practices exist in each target community and their seasonal calendar (in combination with 2.1.1.1) 2.2.1.2 Develop training materials on climate- resilient agriculture and water conservation techniques that will best suit changing conditions based on information gathered 1.2.2 and combined with 2.1.3.1 – including intercropping, seed selection, grafting techniques and planting, management 2.2.1.3 Conduct training on climate-resilient agriculture techniques at community level 2.2.1.4 Establish field demonstrations of climate-resilient agriculture	1,410 print copies of climate resilient agriculture training manual and education materials developed and circulated Farmers in at least 90% of target communities receive and attend training on climate-resilient agriculture Field demonstration sites established in at least 90% targeted communities Farmers in at least 60% of target communities apply climate-resilient agricultural methods (including bio-controls), scaled-up through Area Council extension At least 80% of engagement includes separate women's, disability and youth focus groups

		techniques (including traditional methods where appropriate)	
Activity 2.2.2 Introduce/scale up adoption of climate-resilient native food and cash crop varieties	Support the adoption (through increased supply and accessibility) of climate-resilient native food and cash crops, along with simple agricultural tools (including earth huger, rotavator) to increase productivity. Training will be provided to accompany distribution of new planting materials and tools.	2.2.2.1 Establish new or support existing nurseries at Area Council level for raising climate-resilient seed stocks, including native food and cash crops varieties, and germinating seedlings for food and cash crops 2.2.2.2 Distribute resilient native food and cash crops planting materials to communities, including identified climate-resilient varieties of: fruit and nut trees, coconut, vegetables, cacao, coffee and kava 2.2.2.3 Distribute simple agricultural tools to communities to increase production of resilient food and cash crops	29 nurseries established / supported At least 80% of targeted farmers receive seedlings of climate-resilient native and cash crop varieties At least 80% of targeted farmers receive agriculture tools At least 80% of engagement includes a separate women's, disability and youth groups
Activity 2.2.3 Establish/scale-up community-, school- and home-based kitchen gardens for enhanced nutrition utilizing climate-resilient crops	Support adoption (through increased understanding, supply and accessibility) of kitchen gardens to promote enhanced nutrition and climate-resilient crops.	2.2.3.1 Deliver family-based nutrition education based on local food and kitchen gardens with diversified, climate-resilient crops and training to promote nutrition and greater use of traditional foods 2.2.3.2 Distribute seeds, seedlings and plants to schools, communities and households to facilitate seed exchanges and seed saving to increase local independence and resilience 2.2.3.3 Establish demonstration training gardens in schools and/or communities to raise vegetable and tree seedlings for increased climate resilient nutrition	Community members in all 29 Area Councils receive training on kitchen gardens, agroforestry, climate-resilient farming and nutrition 29 vegetable nurseries established 29 kitchen gardens established in schools and/or communities across targeted Area Councils
Output 2.3: Climate-resilient fisheries for food security and livelihood development			
Activity 2.3.1 Build community capacity on coastal resource management and monitoring that supports sustainable fisheries	Build the capacity of target communities on coastal resource management; identify 'community champions'; undertake Coastal resource assessments; development and delivery of coastal resource management training program.	2.3.1.1 Involve communities to determine coastal habitat and resource conditions and threats (in combination with 2.1.1.1) 2.3.1.2 Develop a culturally appropriate and scalable coastal resource management training program that includes key capacity areas: the effects of fishing, habitat management tools, monitoring, and sustainable self-governance, including a youth-focused component 2.3.1.3 Deliver education and capacity development program developed in 2.3.1.2	Coastal habitat area, resource condition and threats determined for 202 target communities At least 80% of target coastal communities engaged to establish participation in coastal resource management activities Subsistence fish catch data collected in at least 90% of target coastal communities Fisheries food security and livelihood program developed and delivered in target coastal communities 404 community Champions (202 male and 202 female) in 202 target communities across 29 Area Councils trained in local monitoring and Management At least 80% of engagement includes separate women's, disability and youth focus groups
Activity 2.3.2 Support communities to adopt primary community-based fisheries management to reduce climate change impacts	Support adoption of primary community-based fisheries management; collect local fisheries data using community-based monitoring methods; establish long-term mechanisms for sharing data between communities and government; support implementation of climate-resilient management techniques; distribution of off-shore fishing equipment	2.3.2.1 Develop community-level capacity in leadership, monitoring and effective governance, including management of tabu areas 2.3.2.2 Support community champions to collect local and relevant fishing data using established community-based monitoring methods to inform decision-making 2.3.2.3 Support community-level implementation of climate-resilient fisheries management and development of locally appropriate governance mechanisms 2.3.2.4 Support diversification and sustainability of fisheries resources (alleviating pressures on inshore fisheries) by providing off-shore fishing equipment in targeted communities	At least 90% of target coastal communities empowered to implement effective coastal resource management At least 80% of target coastal communities establish community-led management of coastal resources At least 80% of target coastal communities establish community-led monitoring At least 80% of target coastal communities implement sustainable governance mechanisms Off-shore fishing equipment distributed to 112 fishing

			communities (50% of targeted coastal communities)
Output 2.4: **Women-led climate-resilient food processing and preservation established to support food security and diversification of livelihoods options**			
Activity 2.4.1 Introduce or scale up women-led local solutions for food processing and preservation	Introduce new (or scale up existing) local solutions for food processing and preservation; provide information on relevant food processing and preservation techniques; provide adaptation technologies for food preservation and storage (solar dryers and solar freezers); support long-term use, operation and maintenance of food processing and preservation systems.	2.4.1.1 Local stakeholder engagement to select commodities that exist or can be introduced to communities that are most suitable for preservation and storage (based on existing traditional and cultural practices incorporating the latest best practice across the Pacific). 2.4.1.2 Purchase and install food preservation and storage systems in target communities 2.4.1.3 Support long-term use, operation and maintenance of food processing and preservation systems, including accessing spare parts and skilled labour as needed	90% of target communities assess food processing and preservation options 90% of targeted communities using local food preservation technologies 100% of technology owned and managed by women-led producer groups 30 youth entrepreneurs (100% women) supported to operate and/or maintain perseveration technologies
Activity 2.4.2 Support women to diversify into new agricultural/food commodities and value-add products that deliver greater income generating opportunities	Support targeted communities to develop new women-led agriculture/food commodities and value-added products for income generation, including participatory and inclusive community engagement.	2.4.2.1 Participatory community engagement to select opportunities for diversification into and value-add food and non-food products for income generation 2.4.2.2 Support women to develop value-add products that generate income and access to new (distant) markets for emerging commodities utilizing food preservation systems under 2.4.1	Product processing and preservation options assessed for 141 target communities 60% of assessed target communities conduct feasibility assessment of suitable commodities for preservation and storage 5 new livelihood commodities requiring processing and preservation developed by women in 90 target communities At least 90 women-led income diversification initiatives implemented, with at least 30 led by young women
Activity 2.4.5 Support women-led enterprises to access private partnership options to access new (distant) markets for value-add products	Provide assistance for production and distribution of value-added products and agriculture/fisheries commodities, channelled through producer groups established at the community or Area Councils level. In collaboration with the VCCI, identify and facilitate private sector partnerships to further support community-level enterprise and enhance access to markets.	2.4.3.1 Support women to develop producer groups (at community or Area Council level) for production and distribution of value-added products and agriculture/fisheries commodities 2.4.3.2 Support the establishment of partnerships with private sector entities to facilitate community enterprise and enhanced access to markets in collaboration with VCCI	90 women-led producer groups established for production and distribution of value-added products and agriculture/fisheries commodities Six partnerships established between producer groups and private sector entities to facilitate community enterprise and enhanced access to markets (in collaboration with VCCI)
Component 3: Institutional adaptation capacity is enhanced by building adaptive governance systems at the local level and enhancing local-provincial-national linkages			
Output 3.1: Adaptive local governance systems strengthened through sub-national planning			
Activity 3.1.1 Support Area Council and Province officials to incorporate climate risk analysis and financing strategies into Area Council development plans and budgets	Enable subnational officials to incorporate climate risk analysis into Area Council development planning and budgeting; develop tailored technical trainings for Area Council members, provincial government officials, and other relevant stakeholders; facilitate links between Area Council and Community Adaptation plans; technical support to enable assessment of gender gaps through gender-responsive climate change budgeting and planning.	3.1.1.1 Consolidate and synthesise community analyses (from 1.2.2) to develop Area Council level vulnerability mapping to inform planning and adaptation action 3.1.1.2 Identify and address gaps in the integration of climate risks and adaptation actions into Area Council planning and budgeting processes 3.1.1.3 Provide training and capacity building to Area Council representatives and technical advisory groups on the integration of climate change risks and adaptation actions into planning and budgeting processes (including gender-based risks of climate change) 3.1.1.4 Provide technical assistance/ resources to subnational officials to undertake new/updated assessments of climate and disaster risk to inform Area Council development plans and budgets 3.1.1.5 Facilitate linkages between Area Council development plans and Community Adaptation Plans to avoid duplication or contradictions, and ensure consistent planning and budgeting 3.1.1.6 Provide technical assistance/resources to local and sub-national government (Area Councils, provincial government) to assess gender gaps	29 Area Council vulnerability maps developed Analysis of Area Council gaps undertaken Capacity building trainings on integration of climate risk analysis into planning and budgeting processes delivered in 29 Area Council 29 Area Council budget processes established to fund Area Council adaptation activities that consider climate and disaster risk At least 60% of Area Councils operationalize gender-responsive budgeting practices

		through gender-responsive and inclusive climate change budgeting and planning	
Activity 3.1.2 Build the capacity of local authorities to support operations of the CDCCCs and ongoing inclusive local adaptation planning processes	Strengthen the capacity of local authorities (including Area Councils and CDCCCs) to carry out inclusive and effective adaptation planning at the local level; develop and implement technical training materials to address key competencies; ongoing support will be provided to local authorities for the inclusion of sustainable budgeting for CDCCCs as a component of Area Council Development Plans.	3.1.2.1 Undertake Area Council capacity reviews to support local adaptation action in order to identify resource constraints and needs 3.1.2.2 Building on 1.2.1 and 1.2.2, roll out further training to build capacity of Area Councils to support the ongoing operations of CDCCCs 3.1.2.3 Assess the status of formal links between Area Councils and CDCCCs and support increased two-way communication and engagement 3.1.2.4 Support the inclusion of sustainable budgeting for CDCCCs in Area Council Development Plans	At least 50% of Area Administrators/Liaison Officers/Area Secretaries in 29 Area Councils participate in capacity assessment At least 90% of Area Administrators/Liaison Officers/Area Secretaries in 29 Area Councils receive capacity building training At least 60% of CDCCCs in 29 Area Councils are allocated sustainable budgeting as part of Area Council Development Plan
Activity 3.1.3 Support NDMO to design and establish a shock-responsive social protection system designed for the needs of the most vulnerable households	Utilise co-finance from Australia's Department of Foreign Affairs and Trade to provide technical assistance to the National Disaster Management Office for the design of a government owned, shock-responsive social protection initiative. NDMO will be supported to develop and pilot locally appropriate targeting criteria (including inputs from Activity 1.2.2) to register the most vulnerable children and households in communities and to establish the framework for the system, linked to the strengthened sub-national CIS and EWS systems (including via output 1.3).	3.1.3.1 Provide technical assistance to the NDMO to design a government owned, shock-responsive social protection initiative aligned to strengthened sub-national CIS and EWS systems (linked to output 1.3). 3.1.3.2 Develop locally appropriate targeting criteria to register the most vulnerable children and households in communities (linked to 1.2.2). 3.1.3.3 Establish a framework for a cash transfer system.	Social protection system designed criteria developed and tested cash transfer framework developed
Output 3.2: Enhanced local-provincial-national linkages through knowledge management and creation of feedback loops			
Activity 3.2.1 Capture lessons learned, emerging themes and best practices at the community level to ensure sub-national and national planning processes are informed by local needs and that local actions support national objectives	Promote national and sub-national planning processes that are informed by community level experiences and that community-level actions are in support of national public policy objectives. Tailored knowledge management products and resources will be produced and disseminated. Participation of community champions in national and regional forums.	3.2.1.1 Produce knowledge management products that capture and emphasise local needs to national stakeholders directly involved in the production of high-level adaptation planning processes (Updated NDC, NAP development, UNFCCC reporting) 3.2.1.2 Facilitate participation of community champions and local community liaison officers in national and regional forums (Pacific Resilience Partnership, PIFS side events, national climate change conferences/events, other CBA/GCF project meetings) supported by governments and development partners. Facilitate visibility and engagement of senior officials through project site visits 3.2.1.3 Disseminate knowledge management products (participatory tools, videos, project reports, technical toolkits) that are translated in all three national languages to encourage meaningful consideration and usage at local level 3.2.1.4 Increase the global adaptation knowledge base by linking project outcomes to national, regional and global processes	Thirty annual knowledge management products produced 18 annual national, regional and/or international forums participated in to disseminate local CBA knowledge 80% of knowledge management products are translated into each national language Progress on gender equality, disability inclusion and youth participation included in annual knowledge management products
Activity 3.2.2 Support local authorities in monitoring and evaluation of national CCDRR policies at the	Support monitoring and evaluation of the national sector policy on climate change and disaster risk reduction. Strengthen linkages and	3.2.2.1 Establish a system to support sub-national authorities (provincial staff, Area Council, Area Administrators/Liaisons) with	80% of Area Councils capture, evaluate, and report CCDRRR sector policy implementation data to national authorities

| local level and increasing dialogue between stakeholders at all levels | communication between local, provincial, and national stakeholders. Support sub-national government to establish systems to enhance reporting on implementation of the national CCDRR sector policy. Facilitate participatory events to increase emphasis on long-term, community-level priorities within national and sub-national planning and budgeting processes. | reporting on implementation of national sector policy in their respective local boundaries
3.2.2.2 Facilitate meetings between national and sub-national government stakeholders, including non-governmental actors, to discuss actions to increase emphasis on long-term community-level priorities within national and subnational planning and budgeting processes; coordinated with VCAN activities | Seven annual dialogue meetings/forums held to increase communication vertically across government to increase inclusion of local needs in planning decisions
1 national and 29 sub-national planning documents (e.g.,. strategic plan, business plans, etc.) reflecting long-term community needs identified by local actors |

The following parts of the IRMF of the project can be found on the GCF website:

1. contribution to GCF Impact level (paradigm shift potential);

2. contribution to the GCF Outcome level (reduced emissions, increased resilience, and enabling environment); and

3. project/programme co-benefit and indicators.

References

ADB. 2020. Guidelines for Preparing and Using a Design and Monitoring Framework. Guidelines for Preparing a Design and Monitoring Framework. https://www.adb.org/documents/guidelines-preparing-design-and-monitoring-framework. Accessed 16 November 2022.

ADB. 2016. Guidelines for Preparing a Design and Monitoring Framework

ADB. 2007. Guidelines for Preparing a Design and Monitoring Framework, Second Edition https://lnadbg6.adb.org/rsdd056p.nsf/0/D07EC7FD687AADAE48257B4F0022FD6A/%24file/guidelines-preparing-dmf.pdf. Accessed 16 November 2022.

ADB. 1998. Using the Logical Framework for Sector Analysis and Project Design: A User's Guide Institutional Document. https://www.adb.org/documents/using-logical-framework-sector-analysis-and-project-design-users-guide. Accessed 13 November 2022.

Dillon, Leonellha B., Sustainable Sanitation and Water Management Toolbox. Retrieved from: https://sswm.info/taxonomy/term/2647/problem-tree-analysis. Accessed 13 November 2022.

European Commission. 2004. Project Cycle Management Guidelines Aid Delivery Methods - Project Cycle Management Guidelines Vol 1 - Guidelines. https://international-partnerships.ec.europa.eu/system/files/2020-09/methodology-aid-delivery-methods-project-cycle-management-200403_en.pdf. Accessed 13 November 2022.

Fayolle, V. and Dhanjal, M. 2020. Green Climate Fund Proposal Toolkit 2020. London: Acclimatise and Climate and Development Knowledge Network. https://reliefweb.int/attachments/5b584cd8-3c57-3d9a-abcf-6a7606b50f67/GCF-Funding-Proposal-Toolkit-2020.pdf. Accessed 16 November 2022.

Fayolle V., Odianose S. and Soanes M. 2017. GCF Project Toolkit 2017. Guide to develop a Project proposal for the Green Climate Fund (GCF). Acclimatise, London. January 2017. https://reliefweb.int/attachments/576c50ba-6a05-3c81-95a2-ca688f58aa6a/GCF%20project%20Toolkit_20.01.2017_For%20Publication.pdf. Accessed 16 November 2022

GCF. 2021. Integrated results management framework. https://www.greenclimate.fund/document/integrated-results-management-framework. Accessed 13 November 2022.

GCF. 2022. Guidance Note to support the completion of the IRMF elements of the revised funding

proposal template for PAP and SAP. https://www.greenclimate.fund/document/guidance-note-support-completion-irmf-elements-revised-funding-proposal-template-pap-and. Accessed 13 November 2022.

JICA. 2010. New JICA Guidelines for Project Evaluation First Edition. https://www.jica.go.jp/english/our_work/evaluation/tech_and_grant/guides/c8h0vm000001rfux-att/guideline_2010.pdf. Accessed 13 November 2022.

ODI. 2009. Planning tools: Problem Tree Analysis. Retrieved from: https://odi.org/en/publications/planning-tools-problem-tree-analysis/. Accessed 13 November 2022.

Lienert, Juri. Stakeholder Identification. Retrieved from: https://sswm.info/humanitarian-crises/urban-settings/planning-process-tools/exploring-tools/stakeholder-identification. Accessed 13 November 2022.

UN-Habitat. 2014. Planning for Climate Change: A strategic, values-based approach for urban planners Planning for Climate Change.pdf. https://unhabitat.org/planning-for-climate-change-guide-a-strategic-values-based-approach-for-urban-planners. Accessed 13 November 2022.

USAID. 2017. Climate Change Adaptation Project Preparation Facility for Asia and the Pacific. https://www.climatelinks.org/content/climate-change-adaptation-project-preparation-facility-asia-and-pacific-adapt-asia-pacific Accessed 13 November 2022.

USAID. 2017. Guide to Climate Change Adaptation Project Preparation. https://www.climatelinks.org/resources/guide-climate-change-adaptation-project-preparation. Accessed 13 November 2022.

weADAPT. 2019. Guidebook: Mobilising Private Sector Finance for Climate Change Adaptation. https://www.weadapt.org/knowledge-base/climate-finance/guidebook-mobilising-private-sector-finance-for-climate-change-adaptation. Accessed 13 November 2022.

World Bank. 2000. The Logframe Handbook: A Logical Framework Approach to Project Cycle Management. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/783001468134383368/the-logframe-handbook-a-logical-framework-approach-to-project-cycle-management. Accessed 13 November 2022.