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Lecture Notes of the Massive Open Online Course

# National Adaptation Plans: Building Climate Resilience in Agriculture

## Module 6: Communications, monitoring and evaluation

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Food and Agriculture Organization of the United Nations

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# WEEK 6

## Foreword

This document presents a lecture note prepared for the National Adaptation Plans: Building Climate Resilience into Agriculture Massive Open Online Course (MOOC) which is one of the deliverables of the National Adaptation Plans (NAP-Ag) Programme.

The NAP-Ag Programme is a joint effort led by the United Nations Development Programme (UNDP) and the Food and Agriculture Organization of the United Nations (FAO) to support a set of developing countries to identify and integrate climate change adaptation measures in the agricultural sectors into relevant national planning and budgeting processes. Under this programme, UNITAR supported UNDP and FAO in developing a MOOC to raise awareness and increase the capacities of a wide range of interested stakeholders in climate change adaptation planning, specifically for the agriculture sectors.

This MOOC is structured around 6 thematic modules:

1. Introduction to climate change adaptation, agriculture and food security
2. International Frameworks and National Adaptation Planning
3. Identifying and assessing climate change impacts and risks
4. Identifying and prioritizing climate adaptation options
5. Governance, coordination and finance
6. Communications, monitoring and evaluation

The lecture notes include links to complementary lecture videos and additional resources.

**The Module 6** reflects on the 4th final element of the National Adaptation Plans guidelines (Element D – Reporting, Monitoring and Review) and presents the processes of setting up effective adaptation M&E systems for the agriculture sector, which can feed into NAP processes. One of the tools presented is impact evaluation. The module also introduces the role of outreach and communications for enhancing the project objectives and provides overview of the steps and best practices of building and implementing effective communications strategy.

Learning Objectives

(1) Describe the M&E process for climate change adaptation in agriculture;
(2) List the basic elements of an integrated communications strategy.

## Acknowledgements

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# Part I

## 6.1.1 Adaptation Monitoring and Evaluation (M&E) in the agriculture sectors

Experts: Dr. Selvaraju Ramasamy, Ninni Ikkala Nyman and Joanne Manda [1]

### Key Messages

1) Monitoring and evaluation (M&E) frameworks provide a means to track and assess whether activities and policies are achieving desired goals and objectives. They are a key element of adaptation planning and NAP processes.
2) M&E of adaptation and agriculture should build on existing M&E systems, available data and institutional arrangements and feed back into the iterative planning process of a NAP, whilst contributing to learning.
3) M&E of adaptation in the agriculture sector should have a clear goal, which aligns with national policies, including on-going country level efforts towards reporting to major international mechanisms (e.g. Paris Agreement, SDGs, The Sendai Framework). The M&E system should include a Theory of Change, a purpose and focus.
4) Indicators for monitoring and evaluating climate change adaptation processes and outcomes in agricultural sectors can be categorized around the following key dimensions: natural resources, agricultural production, socio-economics, institutions and policy.

*Introduction*

Adaptation actions in the agriculture sector are being implemented to enhance food security and adaptive capacity. Increasingly, adaptation is being integrated into national and sectoral policies, planning frameworks and budgets, including through National Adaptation Plans (NAPs), to sustain development in a changing climate. Within this context, it is important to understand whether implemented adaptation actions, policies and plans are achieving desired results. Therefore, the tracking of the overall progress of adaptation actions at the national level should preferably start at the beginning of the adaptation planning process, and continue during implementation. It also requires continuous assessment of overall progress.

The importance of monitoring and evaluation (M&E) frameworks of adaptation has been highlighted at global level, including under the UNFCCC Paris Agreement. Whilst only a few countries have developed national adaptation M&E frameworks to date, several countries mention their intention to develop such frameworks in their Nationally Determined Contributions (NDCs) to the UNFCCC.

National level M&E of adaptation can eventually contribute in reporting national contributions to the UNFCCC, including towards the global goal on adaptation defined under the Paris Agreement. It can also help countries report on their achievement of SDGs. At the national level, the information generated through tracking and measuring the impact of adaptation processes can also help to build

[1] The lecture notes are based on two independent contributions submitted by Dr. Selvaraju Ramasamy and Ninni Ikkala Nyman.

broader political and financial support for adaptation, in addition to supporting continuous learning on adaptation, including in the agriculture sectors.
Overall, monitoring and evaluation (M&E) frameworks can contribute to:

- Better learning on adaptation,
- Flexible management of adaptation actions under climate uncertainty,
- Validation that adaptation processes and outcomes are on track in achieving stated objectives,
- Accountability to national decision-makers and donors,
- Compliance with national and international reporting requirements,
- Justification for funding for adaptation,
- Communication of adaptation priorities to policy and decision-makers and stakeholders,
- Comparisons of adaptation achievements across localities, sectors, regions and countries.

Within adaptation, M&E can be focused on different aspects, such as:

- measuring impacts of climate change (e.g. drought and flooding),
- measuring changes in the levels of vulnerability to climate change (e.g. hectares of arable land lost due to drought),
- demonstrating enhanced adaptive capacity (e.g. new systems that make institutions more responsive or percentage of farmers using drought resistant crop varieties),
- measuring adaptation processes and tracking changes in human and institutional capacity,
- advancement in implementing policies and plans,
- measuring adaptation outcomes such as increase in water coverage during drought at municipal or national level.

Developing an M&E system for adaptation in the agriculture sectors

*Policy context*

When developing an adaptation M&E system for the agriculture sector, an initial step includes analysis and understanding of the **policy context and policy objectives** articulated in various existing policies and plans, such as: development plans; climate change adaptation policies and strategies, incl. NAPs and NDCs; agriculture development strategies or climate smart agriculture strategies; and environment policies and strategies. The M&E system should be aligned with ongoing country level efforts towards reporting to major international mechanisms (e.g. Paris Agreement, SDGs, Sendai Framework for Disaster Risk Reduction). The intended **goals** of these plans and policies can guide the design and content of the adaptation M&E framework by helping to define the overall adaptation challenge or goals, which national and sectoral adaptation planning processes are trying to address in the agriculture sectors.

*The Theory of Change, purpose and focus of adaptation M&E*

It is important for stakeholders to have a shared understanding of what they are hoping to achieve in terms of a long-term adaptation goal or change for the agriculture sectors, and how they hope to achieve it. An adaptation **Theory of Change** (ToC) can be a useful tool to define such a goal and the steps, or causal pathway, and assumptions required to reach it. A theory of change is a tool to help

you describe the pathway from the need you are trying to address, to the changes you want to make (outcomes) and what you plan to do (activities). It is often represented in a diagram or chart.

Understanding the purpose of your adaptation M&E Framework for the agriculture sectors will allow you to tailor it to the context and will also help to narrow down on the types of indicators and data you will need to collect. **What aspects** of adaptation are you trying to measure (process, outcomes or impacts) and **who will make** use of the M&E results from the beginning of designing an M&E system for adaptation and agriculture. Finally, it is important to be clear on how M&E results might be used and feed into decision-making.

*Adaptation M&E framework and indicators*

An M&E Framework is often a table that describes the goal, outcome, outputs, activities, inputs and indicators that are used to measure whether a program or policy is a success. It is an explicit articulation (graphic display, matrix, or summary) of the different levels, or chains, of results expected from a particular intervention—an adaptation program or policy.
As part of an adaptation M&E framework, a suite of adaptation indicators relevant to agricultural sectors should be selected. While the selection depends on user's needs, data availability and relevance, here are several additional points to consider.

First, the indicators should be aligned with existing indicators and targets in country, whether reporting to national goals or for example reporting to major international mechanisms (e.g. Paris Agreement, SDGs, Sendai Framework for Disaster Risk Reduction). It should consider data availability already available on climate trends, vulnerabilities, economic and social dimensions, status of natural resources and land use from various sources (e.g. meteorological data, vulnerability assessments, FAO and others) to avoid unnecessary burden on data collection and reporting.

Second, the adaptation indicators need to be gender disaggregated to capture gender perspectives.[2]

Third, selection of indicators should be agreed by all stakeholders engaged in the process. The scope and number of indicators can be increased over time to meet the reporting needs.

Fourth, the indicators should comprise of both process- and outcome-based indicators.[3] This can help governments and policy makers to make the connection between adaptation policies and observed outcomes.[4] An example of a process-based indicator for the development of adaptation policies could be – "Preparation of catchment-specific flood management plan" and of an outcome-based indicator – "Reduction of economic losses due to floods" (see Figure 1).

[2] The next section explores gender-sensitive indicators.
[3] Harley *et al*., 2008
[4] Mullan, *et al*., 2013

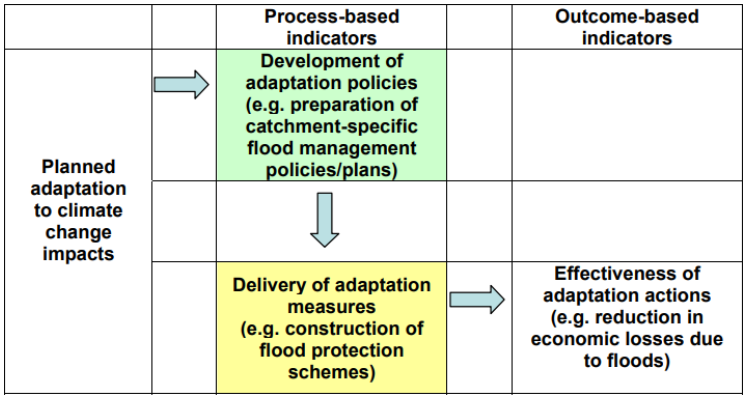


*Figure 1 Conceptual Framework for Adaptation Indicators. Harley, M. and J. v. Minnen (2009)*

Fifth, since adaptation is first and foremost a local issue, climate change adaptation programs should include indicators that capture changes at local levels.[5] This can be done by 1) measuring bottom-up indicators (from local up to national level), such as vulnerability of agricultural systems, 2) using climate impacts assessment and climate change scenario data (e.g. rainfall variability and drought, flooding, hailstorms and frosts etc.) and 3) capturing a range of existing local adaptation initiatives and trigger collection of sufficient local data to be measurable.[6] For sectoral level planning purposes, local level data needs to be aggregated and scaled up for analysis.

*Categories of Indicators*

The following categories of indicators are key for monitoring climate change adaptation processes and outcomes in agriculture sectors (FAO, 2017). They cut across all the major entry points for adaptation – vulnerability reduction, enhancing adaptive capacity and mainstreaming climate change concerns into policies, programs and plans.

(1) **Natural resources**

Natural resources indicators are linked to the state of the environment and their relationship with agricultural sectors activities. Indicators in this domain seek to facilitate the identification of issues related to natural resources and ecosystems that sustain agriculture, as well as to improve understanding of the positive impacts and potential unintended consequences of adaptation actions.

(2) **Agricultural production**

Climate change adaptation in agricultural sectors involves the sustainable management of resources for agriculture to satisfy changing human needs. The indicators related to agricultural production aim to monitor the relationship between natural resources, agricultural production, and climate change impacts.

(3) **Socio-economics**

Socio-economic indicators seek to facilitate the understanding of the relationship between climate change adaptation, social and economic development. Such indicators capture the access to basic services and support for livelihoods opportunities, social protection, and safety nets of the agricultural population. Smallholder farmers, pastoralists, fisher folks and forest and tree-dependent people are amongst the most vulnerable.

(4) **Institutions and Policy**

Indicators of institutions and policy seek to evaluate the existence and effectiveness of institutional frameworks that guide the adaptation interventions as well as the effectiveness of climate change adaptation policies and strategies in agricultural sectors. Institutional capacity and coordination at all levels are fundamental conditions for the effective implementation of climate change adaptation and risk management. Effective policies should be developed following an informed policymaking approach, from the identification of issues related to climate change, to the formulation, implementation, monitoring and evaluation of the most effective policy options.

New FAO's guidance document "Tracking Adaptation in Agricultural Sectors. Climate Change Adaptation Indicators" provides a framework for tracking adaptation which analyzes a number of different indicators across agricultural sub-sectors, and creates a thorough understanding of the relationship between climatic, environmental, socioeconomic and institutional and policy domains. The methodology of the guidance document includes a scoring procedure, whereby indicators are given scores from 0 to 10, and converted from raw quantitative and qualitative data. The scoring system matches the six levels of adaptation progress: very low, low, moderate, high and very high (FAO, 2017).

*Challenges for M&E of adaptation*

There are several challenges for M&E of adaptation such as:

- **Monitoring baselines and moving targets:** Gathering baseline data in the context of climate change and the natural and socio-ecological systems undergoes continuous change over time and so the use of a fixed baseline may lose some validity.
- **Tracking multifaceted nature of adaptation:** Many climate adaptation measures are institutional or governance-related.[7] The importance of combining multiple indicators, including sector specific ones, reflects the multifaceted nature of adaptation, the lack of a universally applicable indicator for adaptation and practical considerations such as data coherence and availability.[8]
- **Realistic scale and data availability:** In many developing countries data availability and quality are often an issue.[9] These issues are often reinforced using existing data sets that may have been developed for other purposes.[10] It is therefore important to address data overload (e.g. too much information with too little useful analysis) by simplifying monitoring and evaluation processes.[11] Furthermore, the data analysed would need to be produced in a format that is useful for decision-makers.
- **Dynamic nature of vulnerability and resilience:** There are multiple interpretations, definitions and methods of what constitutes vulnerability and resilience and how to measure the concept 'on the ground' in a constantly changing context. The dynamic nature of vulnerability and resilience would require a constant updating of baselines, targets and ranking intervals.[12]

[7] Ellis, 2014
[8] EEA, 2015
[9] UNFCCC, 2010
[10] EEA, 2015
[11] GDPRD et al., 2008
[12] Fellman, 2012; Miller *et al.*, 2013; Brooks and Adger, 2004

- **Reflecting enabling environments and policy dimensions:** It can be challenging to attribute impacts to an adaptation intervention, when impact may be due to a broader set of development actions. Adaptation policies, programs and projects occur within a broader context of socio-economic, political and environmental change that can influence development and adaptation outcomes. As such, it can be difficult to attribute the impacts and outcomes to a given adaptation intervention. This is an important challenge for evaluations, because policymakers need a strong understanding of attribution to judge the effectiveness of their intervention and to learn lessons on how to improve interventions in the future.[13] See section 6.1.3 for more information.

*Operationalizing M&E for adaptation*

As part of adaptation planning, it is essential to operationalize M&E frameworks and indicators, and feed these into decision-making processes.

Assessing **financial and human resources** needs should include reviewing the role that different **institutions** will play in the M&E of adaptation, including assessing the different financial and human **resources** required for delivering work around M&E of adaptation. The intended users of the information produced by the M&E framework should be involved already in its design. It is important to identify the **lead/coordinating institution** to be specifically appointed to manage and run the M&E framework for adaptation, usually within the Ministry of Agriculture, and to transmit key findings to relevant government decision-making bodies and processes on adaptation, such as NAPs, which are likely to be coordinated by other Ministries.

In terms of **reporting and communicating**, there needs to be agreement on how the results of the M&E Framework for adaptation will be presented, the frequency and timing of dissemination of the results and the target audience. This might be tied to e.g. national development reporting; annual adaptation or climate change progress reports; or international reporting, for example through NDCs and National Communications to the UNFCCC.

In terms of **decision-making** ideally, M&E results feed back into an iterative planning process on adaptation and agriculture, at sectoral level in an agriculture ministry; into national adaptation planning processes, such as NAPs; and, where relevant, into national development processes, which in turn might feed into reporting on SDGs. Given the iterative nature of adaptation, plans, policies and programmes should be revised based on the emerging lessons learned from M&E on adaptation. They can further help future decision-making, including with regards to investments and prioritisation of adaptation options.

*Conclusion*

Creating flexible, long-term, learning-based M&E frameworks based on robust methodologies can help address some of the challenges listed above. A systematic approach to adaptation planning and M&E at national level can be carried out in the context of a National Adaptation Plan (NAP) process. The NAP Technical Guidelines recommend the establishment of an M&E system from the outset of a NAP process.[14] A NAP M&E system should aim to align with existing M&E frameworks. It can provide a means for countries to track national progress towards adaptation targets and national development goals, as well as aggregate outcomes of adaptation programs and projects.

[13] Pokhrel *et al.*, 2015

[14] National Adaptation Plans: Technical Guidelines (LDC Expert Group, 2012). Element D, p. 104-114.

## Key Resource

Two key resources for these lecture notes are the upcoming:

- FAO's guidance document, *Tracking Adaptation in Agriculture Sectors – Indicators of adaptation and resilience*, http://www.fao.org/3/a-i8145e.pdf
- *Technical Guidance Note*: *Strengthening M&E for Adaptation Planning in the Agriculture Sectors,* by UNDP and FAO, still in progress.

## Key Definitions

Monitoring - The ongoing process by which stakeholders obtain regular feedback on the progress being made towards achieving their goals and objectives. It involves collection of data on inputs, activities and outputs and is used to inform day-to-day management and decisions.

Evaluation - A rigorous and independent assessment of either completed or ongoing activities to determine the extent to which they are achieving stated objectives, or outcomes, and contributing to decision making.[15]

Adaptation outcome - Changes in vulnerability, adaptive capacity, behavior; progress in development despite climate change.[16]

Adaptation process - Implementing adaptation policies, plans and interventions, and building capacities to do so.[17]

Indicator - A variable that measures a phenomenon of interest. The phenomenon can be an input, an output, an outcome, a characteristic, or an attribute.

Process-based indicators – Indicators for monitoring *the development* of adaptation policies and measures. Process-based indicators can be differentiated into 'adaptation policy indicators' and adaptation measure indicators'. They are likely to have prominence in the shorter term.

Outcome-based indicators – Indicators for measuring *the effectiveness* of adaptation actions, which are themselves determined by policies and measures. They are likely to have increasing in prominence in the longer term.

Baseline – The situation before the policy or programme is implemented, against which progress can be assessed or comparisons made. Baseline data are collected before a program or policy is implemented to assess the "before" state.

Theory of Change: A theory of change is a tool to help you describe the pathway from the need you are trying to address, to the changes you want to make (outcomes) and what you plan to do (activities). It is often represented in a diagram or chart.

[15] UNDP, 2009:8.
[16] GIZ and IISD, 2015: 9.
[17] GIZ and IISD, 2015: 9.

## Resources for further learning

FAO, 2017. Tracking Adaptation in Agricultural Sectors. Climate Change Adaptation Indicators. 85 pp. http://www.fao.org/documents/card/en/c/1f571627-0253-4d9d-b596-6170d00d3d9f/

IIED, 2015. Tracking adaptation and measuring development: a manual for national governments, International Institute for Environment and Development (IIED). Available here: http://pubs.iied.org/pdfs/10134IIED.pdf

GIZ, A toolbox on adaptation M&E. Includes access to a range of resources, including key documents *Developing National Adaptation M&E Systems: A Guidebook* and *Monitoring and Evaluating Adaptation at Aggregated Levels: A Comparative Analysis of Ten Systems.* Available here: http://www.adaptationcommunity.net/monitoring-evaluation/

GIZ, 2011. Making adaptation count: concepts and options for monitoring and evaluation of climate change adaptation, German International Development Cooperation (GIZ). Available here: http://pdf.wri.org/making_adaptation_count.pdf

Vallejo, Lola. 2017. Insights from national adaptation monitoring and evaluation systems, Organization for Economic Co-operation and Development (OECD). Available here: http://www.oecd.org/environment/cc/Insights%20from%20national%20adaptation%20monitoring%20and%20evaluation%20systems.pdf

## 6.1.2 Designing gender sensitive indicators

Expert: Sibyl Nelson, Catherine Hill

### Key Messages

1) Gender-sensitive indicators are useful for measuring gender-related changes over time.
2) Gender-sensitive indicators for M&E include both quantitative and qualitative indicators.
3) The use of gender-sensitive indicators requires the collection of sex-disaggregated data. Wherever possible, data on other socio-economic factors including age, should be collected to enable detailed analysis of the impacts of any programming on different groups.

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Gender-sensitive indicators are built into monitoring and evaluation frameworks to track whether climate change adaptation plans or projects are contributing to gender equality.

Gender-sensitive indicators for M&E include both quantitative indicators, which are numerical measurements of change such as numbers of women and men participating and trainings, as well as qualitative indicators, which can be useful for measuring changes in perceptions, beliefs and attitudes, such as perceptions of risks of climate change impacts.

These may include, for example, changes in the control of productive assets, access to information and services related to climate change adaptation, participation in household or community (or farmer group, etc.) decision-making, changes in vulnerability at the individual, household, group, or community level, perceived changes in empowerment, changes in economic status and food security and nutrition, etc.

Involving women and men in the participatory, gender-sensitive development of indicators can be highly effective and meaningful in terms of monitoring of knowledge, attitude and practices as well as subtle gender-differentiated (as well as age, ability-differentiated, etc.) changes in vulnerability and resilience.

*Criteria*

Gender-sensitive indicators for M&E frameworks should meet a set of criteria to be useful and robust. Gender-sensitive indicators need to:

a. be relevant to the needs and capabilities of the users, and easy to collect, use and understand as few as possible, concentrating on measuring important project or policy features.
b. allow for the collection of data disaggregated by sex and other relevant variables (e.g. age, location, household type, etc.).
c. allow for assessing gender-disaggregated changes in vulnerability and changes related to adoption of adaptation options, etc.
d. be quantitative and qualitative (to allow also for the different perceived changes by women and men, boys and girls where relevant).
e. be clear, unambiguous, accurate and reliable.

*Data*

Reliable and accurate data is the basis for evidence-based and informed policy-making processes. Sex-disaggregated data is needed to raise consciousness on the different roles of women and men in rural society, and the unequal access to resources.

## Key definitions

Gender balance - The equal and active participation of women and men in all areas of decision making, and in access to and control over resources and services.

Gender equality – The state of women and men enjoying equal rights, opportunities and entitlements in civil and political life. (Note that this term is sometimes confused with *gender equity*, which means fairness and impartiality in the treatment of women and men in terms of rights, benefits, obligations and opportunities.).

Gender-sensitive indicator - A measurement, number, opinion, or perception that points to gender-related changes over time.

Quantitative gender-sensitive indicators - Numerical measurements of change, such as "Number of women's groups participating in development of NAP roadmap".

Qualitative gender-sensitive indicators - Assessments of changes in perceptions, beliefs, attitudes, such as "Percentage of trainees, disaggregated by sex, who report the use of gender-related knowledge in their work following training".

Sex-disaggregated data - Qualitative or quantitative data that is collected and presented separately on men and women. Men and women are counted separately when tracking activities. They can be paired with data on other factors such as age or socio-economic group. They also document men's and women's roles.

## Resources for further learning

A., Solomon and G. Maggio, 2016. Gender integration into climate-smart agriculture – Tools for data collection and analysis for policy and research. FAO, Rome. Available at http://www.fao.org/3/a-i5299e.pdf

M., Annalise, 2007. Gender and indicators. Overview Report (BRIDGE, IDS). UNDP. Available at http://content-ext.undp.org/aplaws_publications/1850960/GenderandIndicators.pdf

T., Salar, R. Valeria and Z. Bossanyi, 2011. Core gender indicators for assessing the socioeconomic status of agricultural and rural population. Budapest: FAO Regional Office for Europe and Central Asia. Available at http://www.fao.org/fileadmin/user_upload/Europe/documents/WPW/gender_files/Gender_Indicators_en.pdf

World Bank Group, FAO and IFAD, 2015. *Gender in Climate-smart Agriculture – Module 18 for the Gender in Agriculture Sourcebook*. Washington, DC. Available at http://www.fao.org/3/a-i5546e.pdf (Thematic Note 3: Monitoring and Evaluating Gender Through the CSA Project Cycle).

## 6.1.3 Case study: Impact evaluation

Experts: Agha Ali Akram, Babatunde Abidoye

### Key Messages

1) Standard monitoring and evaluation can observe, measure and document the design, inputs, implementation processes and outputs of a project, while impact evaluation methods provide evidence on causal impact of a project intervention.
2) Impact evaluations are especially useful when countries test innovative climate change adaptation actions that seem promising in theory but have little hard evidence.
3) Rigorous quantitative impact evaluations provide policymakers with the evidence they need to decide to proceed with a climate change adaptation option.
4) Impact evaluations must be designed and embedded in programs early in the life-cycle of a program.
5) Quantitative impact evaluations are considered ideal while the qualitative offer flexible approaches in constrained circumstances.

Impact evaluation can provide robust and credible evidence on performance and on whether a program achieved its desired outcomes. Impact evaluation tools are also a methodology for evaluating policies. Thus, impact evaluation tools offer governments the opportunity to evaluate and select climate change adaptation options that are effective and contribute to the implementation of their National Adaptation Plans.

Impact evaluation is used to estimate the changes in well-being that can be attributed to or are caused by a program or policy. Impact evaluation is generally structured around the question:

- ✓ What is the impact (or causal effect) of a program or policy on an outcome of interest?

Impact evaluations aim to isolate the impact of the program or policy from other confounding factors. They are especially useful when countries test innovative climate change adaptation options that seem promising in theory but have little hard evidence either at the local level or because of new and uncertain threats, such as those posed by climate change.

This is the case for many climate change adaptation projects – the technology being deployed as an adaptation option may be old but the outcome can be very different due to a changing climate. Policy makers who want to use evidence to back their decision-making on adaptation options and inform policies need to know:

- ✓ Will this program improve well-being compared to the status-quo? - comparing the innovative untested adaptation option to status-quo practice.
- ✓ Of the many ways in which adaptation to climate change can be carried out, which one is the most effective one? - comparing the innovative untested adaptation option to other adaptation options.

Impact evaluation methodologies are broad and evolving. Monitoring and evaluation (M&E) frameworks are typically put in place to measure outputs, outcomes and impacts of the project or policy. However, identifying impacts requires careful evaluation design and data collection.

Specifically, measurement of **outcomes** to identify impact relies on the availability of a valid **counterfactual** that estimates what would have been the economic, sociocultural, institutional, or other conditions of the intended beneficiaries in the absence of the project's interventions.

The range of evaluation methodologies can be categorized into quantitative, qualitative, and mixed-method. Quantitative evaluations are based on either an experimental or quasi-experimental design which seek to directly measure changes in a set of quantitative outcome variables to determine whether those changes are associated with the project interventions. The choice of appropriate evaluation design depends on various factors, including budget and the level of precision defined by evaluators. Mixed methods are becoming increasingly important given the complexity of programs and projects and changing environments with interventions affected by historical, cultural, political, economic and other contextual factors.

## Key Definitions

Impact evaluation – An evaluation that tries to make a causal link between a program or intervention and a set of outcomes and tries to answer the question of whether a program is responsible for changes in the outcomes of interest.

Counterfactual - What would have happened without the program: an estimate of what the outcome for the beneficiaries would have been in the absence of the policy or program.

Quantitative evaluations – Evaluations that seek to directly measure changes in a set of quantitative outcome variables to determine whether those changes are associated with the project interventions.

Qualitative evaluations – Evaluations that take into account non-quantifiable data, gathered from sources such as focus groups and interviews, capturing views and opinions.
Mixed methods evaluations – A combination of quantitative and qualitative evaluations.

## Resources for further learning

Gertler, P. J., Martinez, S., Premand, P., Rawlings, L. B., & Vermeersch, C. M, 2016. *Impact evaluation in practice*. World Bank Publications. Available at https://siteresources.worldbank.org/EXTHDOFFICE/Resources/5485726-1295455628620/Impact_Evaluation_in_Practice.pdf

Khandker, S. R., Koolwal, G. B., & Samad, H. A, 2009. *Handbook on impact evaluation: quantitative methods and practices*. World Bank Publications. Available at https://openknowledge.worldbank.org/bitstream/handle/10986/2693/520990PUB0EPI1101Official0Use0Only1.pdf?sequence=1&isAllowed=y

# Part II

## 6.2. Outreach and Communications for NAPs

Experts: Greg Benchwick, Denise Martinez, Emily Olsson, Claudia Garcia

Key Messages

1) Don't forget to design an outreach plan to inform and advance communication efforts throughout the formulation and implementation of NAPs!
2) Keep messages short, relevant and to the point.
3) Gather key facts on the impacts of climate change in the different agricultural sectors in your country, this will help you craft evidence-based messages.
4) Identify target audiences and understand how they prefer receiving information!
5) Create feedback loops to exchange information, knowledge and experiences – be sure to apply all input to actions.
6) Track all communications by monitoring and evaluation the impact and understanding the end-recipients!

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A key component of building climate resilience in the agriculture sectors through National Adaptation Plans is communications. Effective communications enable open dialogue, confidence building, consensus and ultimately, behavior change. Communications are, "the transmission belt between knowledge creation, information dissemination and action planning."[18]

However, communicating climate change – particularly adaptation to climate change – can be a difficult task as it is a complex topic that involves the interplay between social, political, economic and ecological factors. These factors are not static, rather they evolve over time.

The UNFCCC Technical Guidelines for National Adaptation Plans Process highlights the key role that communications play throughout the formulation and implementation of a NAP and recommend that each country design a communication strategy for climate change.[19] It is important to note that "National Communications" as outlined in "Element D: Reporting, Monitoring and Review" of the UNFCCC Technical Guidelines are separate (though inter-related elements) from the supportive communications strategies discussed here.[20] The information gathered from exercising each of the steps laid out in Elements A to D of the NAP process, especially the data and information from the

[18] http://www.gsdrc.org/document-library/strategic-communication-for-sustainable-development-a-conceptual-overview/

[19] CSDI/FAO. 2010. Collaborative Change: A Communicative Framework for Climate Change Adaptation and Food Security. Rome: FAO. Available at http://www.fao.org/docrep/012/i1533e/i1533e00.pdf.

[20] The fourth element on reporting, monitoring and review would collect information on the NAP process, assess it through a national M&E system and provide outputs for the reporting on progress to the COP. The activities of this element would be implemented throughout the NAP process, starting with the design and launch of the M&E system during the launch of the NAP process. The outcomes of the review would inform regular updates of the NAPs, and lessons learned would be integrated into subsequent actions of the NAP process. The main output of this element would include a plan for monitoring and evaluation, with a plan for data collection and ongoing compilation and synthesis of new information on impacts and vulnerabilities to be used in updating the NAPs. The NAPs would be disseminated internationally and through the UNFCCC secretariat. Regular progress reports would also be submitted to the UNFCCC through existing and new reporting channels, including countries' national communications and submissions.

monitoring and evaluation and national communications process, can be analyzed and re-packaged. This information can be then shared through supportive networks informing key stakeholders to foster engagement and promote behavioral change nationwide.

While country-specific approaches are necessary for the creation of effective communication strategies, the UNFCCC guidelines provide some basic overarching principals that should be considered:

- ✓ Effective and sustainable communications and awareness-raising programs also need to target the general public. Related to this are efforts to transform education curricula to incorporate climate change. See Section A.3.C. Design and implement programs on climate change communication, awareness-raising and education.
- ✓ Creating a climate-aware citizenry requires sustained efforts, and to be useful, the information should relate to the needs of the people, distinguishing carefully between short-term weather forecast and medium- to long-term climate scenarios. The implementation of this activity should be aligned with broader communication and awareness-raising efforts described in section A.3.C.

Planning the development and dissemination of messages as well as public-awareness and outreach campaigns can be an effective means of building confidence and creating **feedback loops** that can inform the NAP process. This looped process can lead to behavior change, changes in policies and changes in governance structure.

The main steps in designing a communications strategy are:

1. Defining specific, goals you hope to achieve with your communications;
2. Identifying your target audience and key actors that can aid in connecting with that audience;
3. Developing key message(s) you want to share as well as gathering facts related to the impacts of climate change on the agricultural sectors;
4. Selecting the most appropriate tools to communicate those messages; and
5. Monitoring the success of your communications efforts to readjust approaches based on constructive feedback loops.

In the first step, it is important to determine the objective of your communications. The communication strategy should help achieve the overall objectives of the NAP process and therefore should be carefully aligned to the NAP roadmap or strategy.

- ✓ *Are you trying to strengthen the political dialogue around adaptation planning for the agriculture sectors?*
- ✓ *Do you want to communicate a success or respond to a challenge?*
- ✓ *Are you sharing information with other national agencies? Or farmers?*

The answers to questions such as these will guide you throughout the process.

*Target audience*

Understanding the needs and background of your target audiences is another key factor. Individual target audiences for effective NAP communications will include various ministries and political actors, but also include the private sector, civil society, general public, farmers and **influencers** – such as

brand champions and the media – who will support deeper penetration and retention (sometimes called stickiness) of your messaging.

*Effective messaging*

Developing clear and concise message(s) is fundamental. Communicating the considerable socio-economic benefits of climate change adaptation planning for the agriculture sectors to government agencies as well as the general public can be complex. For example, there are several factors that can influence what your audience takes away from your communication efforts, including distractions caused by other pressing needs (such as political instability, disease outbreaks or famine), a lack of understanding of data or complex concepts or internal political dynamics. How you decide to frame a story or event also influences what information your audience takes away. Useful entry points to engage audiences can be messages that are tailored to the local context (using traditional knowledge) as well as those that highlight how climate change aspects are interconnected.

Selecting audiences will require tailored messaging. Therefore, key messages should be compelling, concise and resonate with the audience. Usually the latter can be done by combining data and strong evidence base with a local story or using an extreme weather event to demonstrate the effects of climate change. While technical audiences may require more complex arguments, the elements of behaviour change and influencing are often rooted in emotional messaging that should answer the big questions of "Why".

To determine if you have created a strong key message, use the **'elevator message'** technique – the key message should be succinct enough in order to explain it to someone on an elevator ride and have him or her understand it. They should understand why it is important, how it can be achieved, what will be done and by whom.

*Media habits and dissemination*

Not only do you need to understand your stakeholders/audience, you also need to understand what type of information they need and demand, how they get and use information, their media habits and how information is shared. Approaches will vary by country, but important questions to ask yourself and your stakeholders include the following:

- ✓ *What assets do you have? Is there a market study, broader analysis on media use, demographic information? How can you use this information to engage stakeholders?*
- ✓ *What is the most popular media? And what are the media habits of your stakeholders?*
- ✓ *What is the age and gender demographic preferences per dissemination technology? What about the influence of education and income? Rural vs. urban populations?*

Understanding how climate change is perceived by the audience(s) and how they like to receive their information will aid in the design of communications that are useful, accessible and appropriate.

Disseminating climate information, as well as knowledge generated on climate change adaptation practices and techniques, will be part of the NAP process. These types of communications, raise questions like:

- ✓ *How do we best communicate what technologies work for adaptation in the agriculture sectors?*
- ✓ *How can we better link local, farming knowledge with scientific knowledge?*
- ✓ *How can we bridge the gap between the limit of what communities can do on their own and what government and other services need to do?*

*Monitoring*

After all the careful planning and tailoring of communication efforts, you should monitor the success of activities carried out in order to readjust approaches based on constructive feedback loops. This can be done through a variety of ways, including surveys, website and link trackers as well as social media data. The information gathered can be used to inform further communications or create a feedback loop.

The interplay between monitoring and evaluation and effective communications can perpetuate a positive knowledge cycle, improve sharing of NAP impacts and facilitate a more robust exchange of ideas.

*Country examples*

Thailand's National Climate Change Communication Strategy[21]

The government of the Kingdom of Thailand has already established several institutional arrangements to address climate change, including a National Adaptation Plan and Climate Change Master Plan (2014-2050). Nonetheless, awareness and understanding of climate change issues remains low across stakeholder groups.

To enable effective communication of climate change knowledge, Thailand's Department of Environmental Quality Promotion at the Ministry of Natural Resources is preparing a National Climate Change Communication Strategy.

Strategy:

- ✓ Develop a communications mechanism
- ✓ Develop target-oriented clear and consistent climate change messaging
- ✓ Embed climate change in all levels of formal education
- ✓ Use different communication media and channels

Sample Messages:

- ✓ Climate change is not far away
- ✓ It is real
- ✓ Its consequences are long-term and expensive
- ✓ There is a way to adapt to climate change impacts

[21] https://unfccc.int/files/cooperation_and_support/education_and_outreach/application/pdf/04_supawan_wongpragoon_developing_communication_strategy_on_climate_change_in_thailand.pdf

## Key Definitions

Feedback loop – A system where the output of a system becomes the input for the next iteration of the system. For communications, this would mean that your strategy constantly evolves as you receive feedback from your target audience, data and information from your Monitoring and Evaluation and knowledge management exercises, and re-adjust goals.

Brand Ambassadors, influencers and champions – These are the taste-makers that influence public opinion and can propel your message forward. There is a subtle difference between an **ambassador** (e.g. a celebrity spokesperson), an **influencer** (e.g. a journalist or social-media persona), and a **champion** (e.g. key government-level representatives). Leverage all three to amplify messages, build support and win hearts and minds.[22]

'Elevator message' technique – An elevator pitch, elevator speech or elevator message is a short sales pitch that should take less time than an elevator ride in a skyscraper. Imagine you are in the elevator with the one person that can make or break your product. To convince them, you will need to create a summary and define a process, product, service, organization, or event and its value proposition.

## Resources for further learning


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## MOOC videos

Week 6 Part 1 - Monitoring and Evaluation. Watch here: https://www.youtube.com/watch?v=MDThdxZn5sg&list=PLyBRsrYRs7YfwMYIxKbV41CPwMgeC1e-h&index=11

Week 6 Part 2 - Communications on Climate Change Adaptation. Watch here. https://www.youtube.com/watch?v=YsH6PyUMyZg&index=12&list=PLyBRsrYRs7YfwMYIxKbV41CPwMgeC1e-h