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NAP-GSP
NATIONAL ADAPTATION PLAN GLOBAL SUPPORT PROGRAMME

Skills Assessment for National Adaptation Planning

HOW COUNTRIES CAN IDENTIFY THE GAP

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The National Adaptation Plan Global Support Programme (NAP-GSP) is implemented by UNDP and UNEP, financed by the Least Developed Countries Fund (LDCF). The NAP-GSP programme provides a global support mechanism to enable Least Developed Countries (LDCs) to identify, finance, and implement appropriate medium to long term adaptation actions at national, sub-national and local levels. The NAP-GSP is a collaborative effort, with more than ten international organizations involved. The programme supports countries in the following areas:

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II. Technical support
III. Knowledge brokering.

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The Global Environment Facility (GEF) is the managing body of the Least Developed Country Fund (LDCF). The LDCF was established as an operating entity of the Financial Mechanism of the United Nations Framework Convention on Climate Change (UNFCCC) to address the special needs of the Least Developed Countries (LDCs) under the Convention. The LDCF was tasked with financing the preparation and implementation of National Adaptation Programs of Action (NAPAs), as well as the subsequent national adaptation plan (NAP) process for LDCs.

The United Nations Institute for Training and Research (UNITAR) is a principal training arm of the United Nations, working in every region of the world. UNITAR is a NAP-GSP partner providing training and skills assessment services. This Skills Assessment Framework contributes to element III of the NAP-GSP, knowledge brokering.

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1. Introduction

1.1. National Adaptation Planning

Climate change, in the form of extreme and slow onset events, presents new and additional risks to development, drawing significant international attention in recent years. At stake is the issue of how people and societies can best adapt to new human induced environmental pressures. National Adaptation Plans (NAPs) are part of a global effort to help the most climate change vulnerable countries to better design, coordinate, implement and monitor their efforts in managing climate risks, using national systems of planning and budget management. NAPs build on the experience of their precursors, National Adaptation Programmes of Action (NAPAs), which address urgent and immediate needs in Least Developed Countries (LDCs).

Climate change, in the form of extreme and slow onset events, presents new and additional risks to development

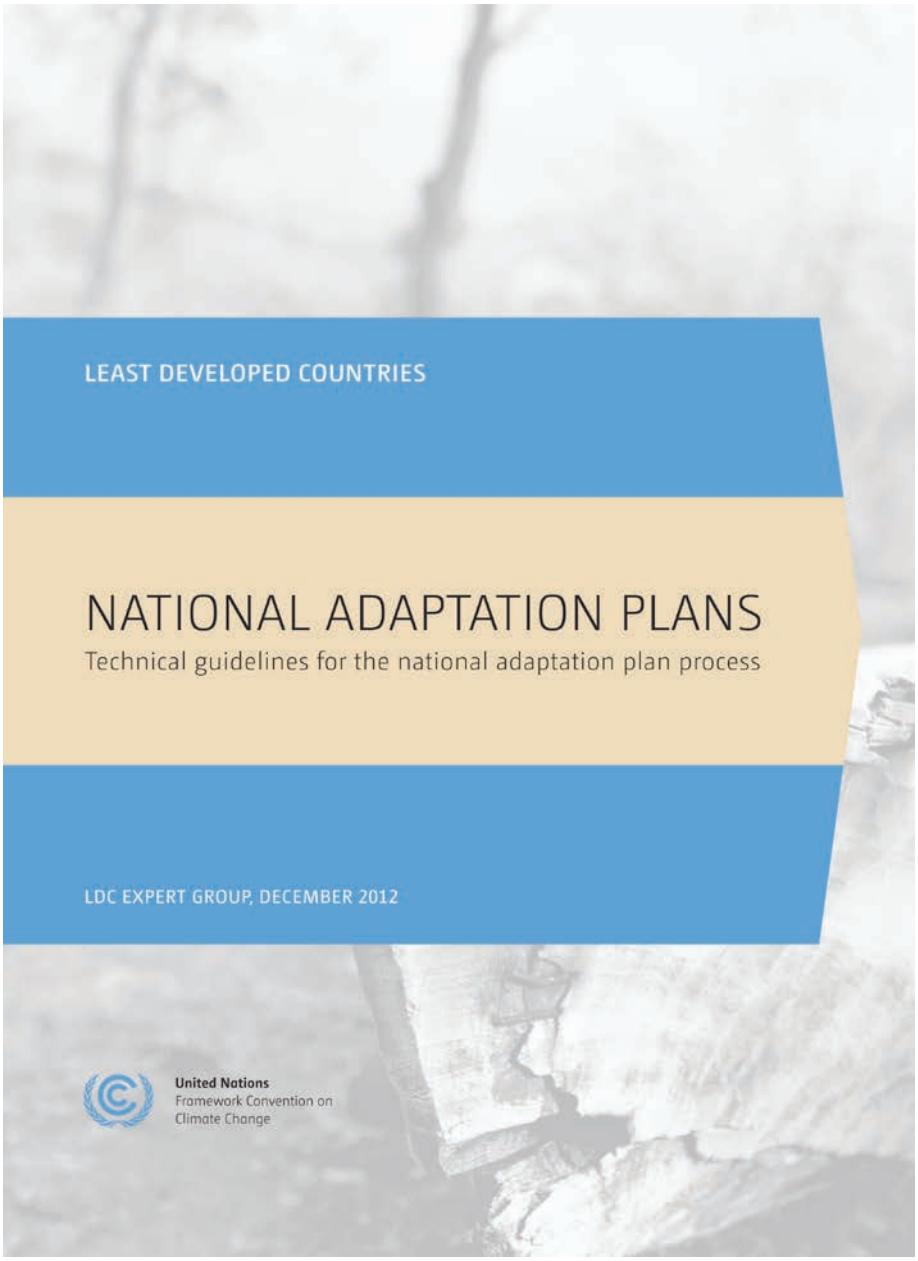
1.2. The National Adaptation Plan Global Support Programme

The National Adaptation Plan Global Support Program helps Least Developed Countries to plan and budget for climate risk

In June 2013, UNDP, UNEP and its partners launched the National Adaptation Plan Global Support Program for Least Developed Countries (NAP-GSP) with funding from the Least Developed Countries Fund (LDCF). The NAP-GSP provides LDCs with technical and organizational support to advance their national adaptation plans at national, sub-national, and local levels. The goal of the NAP-GSP (UNDP, 2013) is to:

"...strengthen the national institutional and t*echnical capacities of LDCs as they begin to integrate medium-to long-term climate change adaptation planning within, or aligned with, current development planning and budgeting processes.*"

NAP Technical Guidelines published by the Least Developed Countries Expert Group (LEG) in 2012, show that integrating climate change adaptation into national planning is not a one-time activity, and touches on many sectors, stakeholders, and planning levels simultaneously. Multiple stakeholders from a variety of sectors need to work together, utilizing complementary skills to accomplish their goals. This requires unprecedented levels of cooperation across institutions, management structures, and decision-making processes.



Integrating climate change adaptation into national planning touches on many sectors, stakeholders, and planning levels simultaneously

Decision makers and planners operating in this challenging context are dependent on institutions with clearly delineated responsibilities and functions, backed by individual skills and knowledge. With time and experience the broad range of skills necessary for adaptation planning has become increasingly apparent to countries, including abilities to understand different institutional cultures, share information and knowledge, reach consensus over what matters most (prioritization), and allocate resources accordingly.

1.3. The Need for a Skills Assessment Framework

When climate change was first recognized as a threat to national development goals, capacity building efforts were mainly focused on understanding the science as well as developing national policy and institutional frameworks for climate change. As awareness of the risks has increased and become experience based, it has become evident that a broader range of skills and capacities are required.

This paper offers a way of assessing the skills gap that a country may have in designing and implementing a national adaptation plan. To achieve this it proposes a skills assessment framework, to complement the NAP Technical Guidelines (UNFCCC, 2012), specifically Element A on "Initiating and Launching the NAP Process".

Skills assessments can help countries to better understand the training needs of those most involved in adaptation planning

Skills assessment can help countries to better understand the training needs of those most involved in adaptation planning. This is achieved by: (i) identifying and describing existing skills-sets in place (management, technical, and participatory); (ii) locating these skills-sets at different implementation levels (policy, organisational, and operational), and (iii) identifying the gaps where additional skills development is required.

The skills assessment framework is made up of several elements: an assessment tool (see Table 1) providing a benchmark set of institutional capacities and skills against which a country can assess its needs; a reference list of generic adaptation planning skills (see Appendix 2); and a step-by-step guide on how to implement a national skills assessment (see Appendix 3).

The framework and tools were developed and pre-tested during a mission to Niger carried out by the NAP-GSP in mid 2014. Further efforts to refine the tools and approach through empirical experience would be valuable.

1. IDENTIFY AND DESCRIBE EXISTING SKILLS SETS
2. LOCATE SKILLS SETS AT DIFFERENT IMPLEMENTATION LEVELS
3. IDENTIFYING THE GAPS WHERE SKILLS DEVELOPMENT IS REQUIRED

2. Skills Assessment for Adaptation Planning

Least Developed Countries have already gained experience in implementing climate change adaptation actions

2.1. Background

Least Developed Countries already have experience in implementing climate change adaptation actions at different levels of government and in different spheres of activity. Practical measures can include planting drought-resistant crops, building protective shelters against natural disasters, or providing educational materials for teachers to use in the classroom. Policy-oriented measures can include drafting climate change strategies and plans, investing in the design of national early warning systems, or building awareness of climate risks and solutions within different levels of government.

What lies behind these experiences are many thousands of individuals and the knowledge and skills base that they collectively represent. National skills assessments for adaptation planning can help to navigate this complexity by clarifying the types of skills that a country may need to achieve its goals, as well as where those skills should be located. This information can be used to design skills development plans supporting the implementation of NAP 'roadmaps'[1] that many countries are currently preparing.

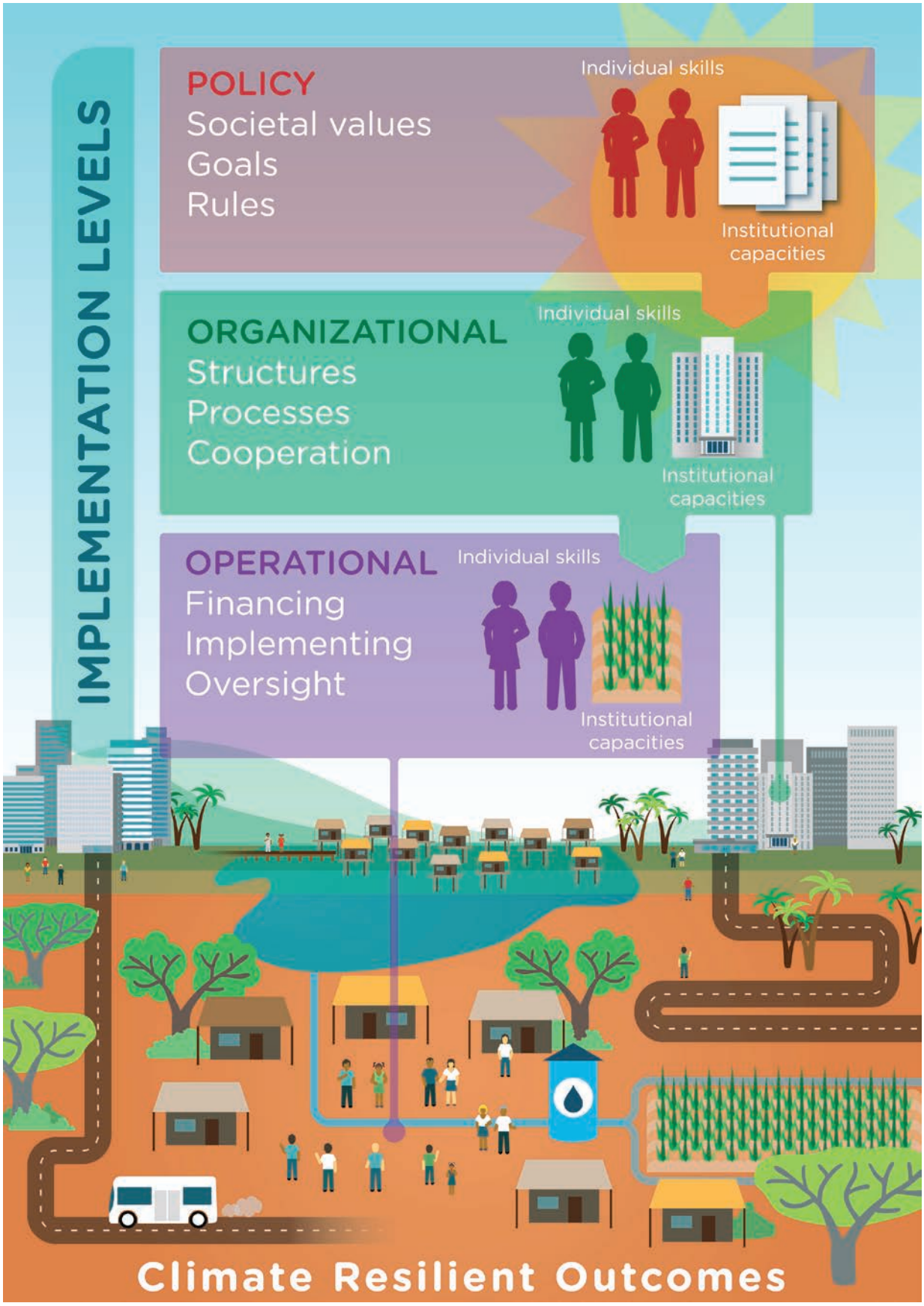
[1] While there is no agreed definition or structure for a NAP roadmap it should represent the culmination of wide stakeholder consultation and can include several elements: identification of key stakeholders and their roles; a timeline; steps to address capacity needs; steps to address technical and technological needs; a cost indication; and management arrangements including M&E.

Figure 1 illustrates the relationship between the types of skills needed (management, technical and participatory) at different levels of implementation (policy, organizational and operational). At the policy level, skills are required to translate societal goals and values into high level statements which set a course for the future. At the organisational level, skills are required to establish sound institutional structures and processes to support cooperation and share knowledge between stakeholders. At the operational level, skills are needed for financial management, implementation, and oversight of specific adaptation related investments.

Once the necessary skills are in place at all levels, greater resilience to the impacts of climate change can be expected across the entire development spectrum of a country. The skills development task is not trivial and will require a long term and recurrent approach working through national education and training systems.

Once the necessary skills are in place at all levels, greater resilience to the impacts of climate change can be expected across the entire development spectrum of a country

Figure 1 – Individual Skills and Institutional Capacities for Adaptation Planning



2.2. Implementation Levels for National Adaptation Planning

POLICY LEVEL SKILLS

The policy level is concerned with the context of national adaptation planning, including beliefs, social values and cultural norms

The policy level is concerned with the context of national adaptation planning, including the linkages between beliefs, social values, and cultural norms. At this level activities are related to conceptualization and defining a country's or region's adaptation issues. A country's beliefs, values, and norms are made real through the creation of policy statements, documents of strategy, and legislation. Individual skills are needed to give effect to this context, related to understanding the dynamics of climate change, policy, strategy, goals, and outcomes. A skills assessment at this level explores abilities to:

- conceptualize and draft national NAP policies to reflect national ideals and priorities;
- advocate for NAP policies, strategies, and legislation; and oversee and advise on related resource allocation and utilisation.

ORGANISATIONAL LEVEL SKILLS

The organisational level transforms or carries into effect the vision and intent in policy, strategy, and legislation. Through the efforts of people and institutions, concrete programs, partnerships, and cooperative management structures are put in place. Organisational activities require skills to enforce/implement

The organisational level transforms or carries into effect the vision and intent in policy, strategy, and legislation

the mandates and strategies that have been designed at the policy level. It is at this level that clear roles, responsibilities, and decision-making rules need to be put in place. A skills assessment at this level explores abilities to:

- establish a coherent and accepted structure for national coordination;
- ensure clarity over institutions roles;
- share knowledge; and
- encourage participation and ownership in agreed structures and the decisions which they enact.

The operational level focuses on the skills needed to implement and manage discrete adaptation activities

OPERATIONAL LEVEL SKILLS

The operational level focuses on the skills needed to implement and manage discrete adaptation activities. This includes project administration, work planning, data and knowledge management, using the results of evaluation to modify adaptation projects, among others. A skills assessment at this level explores abilities to:

- plan and deploy resources needed to deliver agreed NAP outputs (staff, equipment, and funds);
- administer a project, including work planning and financial reporting;
- monitor and compile implementation data; and
- provide training and field orientation.

2.3. Adaptation Skill Sets

Although it is difficult to list all possible types of skills necessary to ensure an effective adaptation planning process, it is useful to present some structure as well as an initial list as a basis for discussion. Appendix 2 provides such a list broken down by type: managerial, technical and participatory.

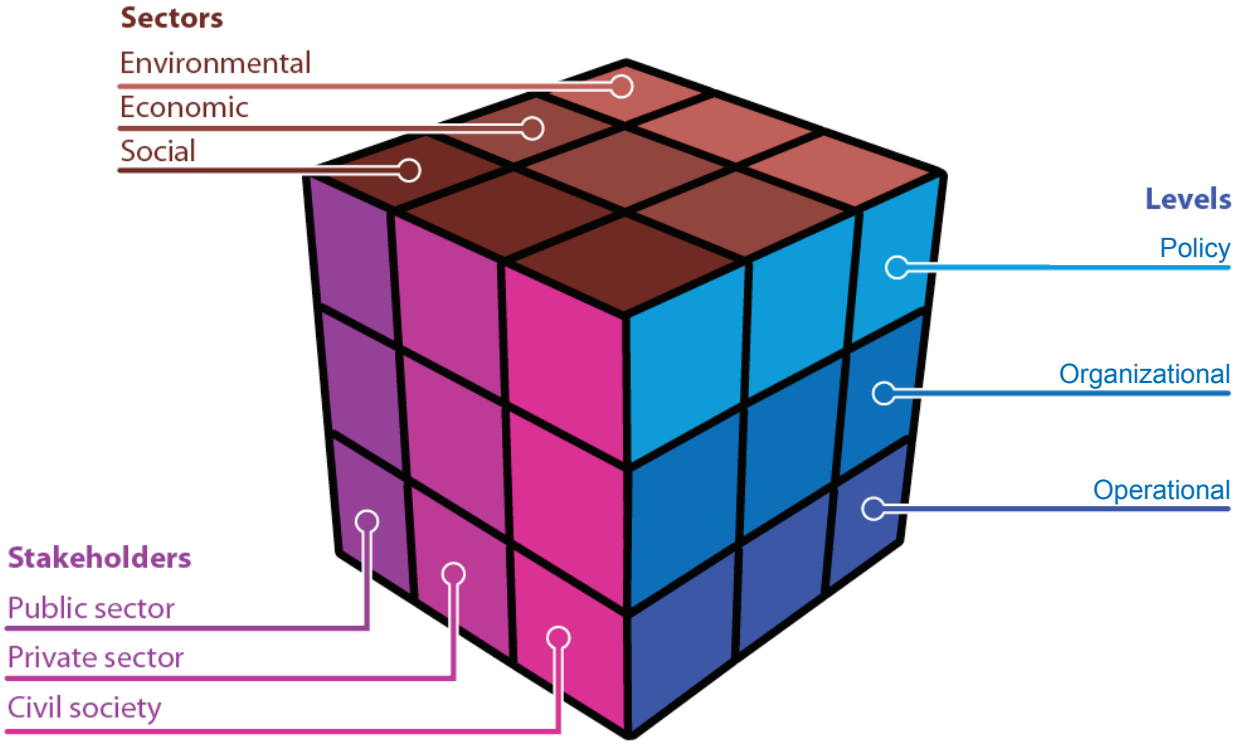
Key adaptation skill sets can be classified as: managerial, technical and participatory

Figure 2 shows that these three skill sets cut across different sectoral concerns (environmental, economic, and social) and different levels of implementation (policy, organizational, operational). It may be helpful to think of a Rubik's cube, whereby different combinations of skills are needed according to specific context – usually the achievement of a specific adaptation planning outcome.

For example, an individual with expertise in forest management (technical environmental skills) may need to oversee coordination between provincial offices of the Ministry of Forestry (organisational level). Alternatively, a chief of section in an economic and planning department (participatory skills) may need to support the development of a strategy for increased donor coordination on climate change financing (policy level).

Skill sets cut across different sectoral concerns and different levels of implementation

Figure 2 – Complementary skills cube



Adapted from National Adaptation Plan (NAP) country-level training, Module: II.2 Institutions and Stakeholders for NAPs

Management skills are required to organize and maintain complex social organizations. These include leadership, supervisory, and delegation skills

MANAGEMENT SKILLS

Management skills are required to organize and maintain complex social organizations. These include leadership, supervisory, and delegation skills. An individual with management skills can oversee the process of mainstreaming climate change, while inspiring others. People with management skills are able to build an enabling environment for progress and change, by helping to create the space within which concrete adaptation action can take place. They may also bring in resources for programs needed to ensure that deadlines are met, and that results are monitored and evaluated.

Technical skills are required to understand the science of climate change, issues of vulnerability and risk, and the prioritization of adaptation options

TECHNICAL SKILLS

Technical skills are required to understand the science of climate change, issues of vulnerability and risk, and the prioritization of adaptation options. A person with technical skills has the ability to apply the knowledge and experience gained in a specific field in order to support effective adaptation solutions. For instance, a technical specialist may be required to examine the economic benefits of an adaptation project or use GIS-based methods to analyze land use, meteorological, and hydrological data.

PARTICIPATORY SKILLS

Participatory skills are required to promote and sustain cooperation, ownership and action. A person with participatory skills is able to create a welcoming and engaging environment that brings people and organizations together, encourage individuals to express diverse views, create consensus and build ownership over decisions made. Adaptation planners use participatory skills to liaise with counterparts in another ministry or between national and sub-national levels.

Participatory skills are required to promote and sustain cooperation, ownership and action

3. A Skills Assessment Framework

Understanding the skills gap needs an organised approach and tools to aid those tasked with carrying out assessments. The skills assessment framework presented here is centred around a tool that provides a rapid means of collecting and analysing information on a country's existing skills profile for national adaptation planning. The tool is field based and should be tailored to national context in advance, in consultation with key stakeholders and interest groups.

3.1 The Assessment Tool

The skills assessment tool provides a rapid way of collecting and analysing information on a country's existing skills profile

The assessment tool (see Table 1) helps to gather, organize, categorize, and analyze complex data sets collected from interviews, discussions, and focus groups. The tool is derived from the Socio-Cultural Action Analysis (SoCAA) method, a research approach that allows for integration and analysis of complex socio-cultural data sets (see Appendix 1).

The tool is structured around model assessment questions relating to the desired institutional capacities (left hand column) for national adaptation planning that you would expect or need to find at the different levels of implementation (policy, organisational, and operational). A mix of technical, management, and participatory skills will most likely be needed in order to build and sustain each institutional capacity. These are shown in the second, third, and fourth columns (see Appendix 2 for full list of numbered skills).

Table 1 – Skills Assessment Tool

INSTITUTIONAL CAPACITIES	INDIVIDUAL SKILLS		
	TECHNICAL	MANAGEMENT	PARTICIPATORY
POLICY LEVEL - Beliefs, political ideals, government and other organisational vision, goals and priorities			
Is there a clear mandate for climate change adaptation in place? Is climate change adaptation integrated into institutional plans? Is climate change adaptation integrated into key sector strategies and plans? Is adaptation recognised within the budget allocation policy? Have the costs of climate change adaptation been assessed?	**T1.** Climate change adaptation policy and science **T2.** Climate change education, training, and awareness **T3.** Climate change mainstreaming and implementing policies **T4.** Legal drafting and review **T5.** Economics of climate change adaptation	**M1.** Strategic leadership **M2.** Appreciating/applying social responsibility, humanity, and ethical considerations **M3.** Visioning, creating, and inspiring **M4.** Advocacy	**P1.** Coordination **P2.** Communication **P3.** Team building **P4.** Speaking and presenting to groups **P5.** Listening and interpretation **P6.** Establishing rapport **P7.** Cross-cultural understanding needs and **P13.** Gender mainstreaming
ORGANISATIONAL LEVEL - how people, groups and organisations are organized, managed and function			
Are functioning mechanisms for climate change coordination in place? Do key sectors have climate change adaptation focal points in place? Is the role of NGOs, academia and private sector in adaptation planning clearly defined? Is climate change adaptation visibly integrated into budget management systems? Does a shared climate change financing framework for adaptation exist (public and private)? Is there a national climate change adaptation monitoring framework in place? Are there national training institutions in place with the capacity to design and deliver course on NAP?	**T2.** Climate change education, training, and awareness - Training content design and delivery **T3.** Climate change mainstreaming and implementing policies - National budget process	**M5.** Time management, managing upwards and sideways **M6.** Results based management - Planning for outcomes **M7.** Financial management - Resource mobilisation **M8.** Management issues under uncertainty **M9.** International climate change diplomacy	**P1.** Coordination **P3.** Team building **P4.** Speaking and presenting to groups **P5.** Listening and interpretation **P6.** Establishing rapport **P7.** Cross-cultural understanding **P8.** Cooperation **P9.** Consensus building **P10.** Participatory planning and decision-making **P12.** Communicating outward: face-to-face, phone, email, text **P13.** Gender mainstreaming

INSTITUTIONAL CAPACITIES	INDIVIDUAL SKILLS		
	TECHNICAL	MANAGEMENT	PARTICIPATORY
OPERATIONAL LEVEL - Project administration, knowledge sharing, skills development, monitoring			
Are sectors able to apply analytical tools for adaptation to planning (V&A, scenarios, CBA, mainstreaming)? Are local authorities able to apply analytical tools for adaptation to planning (V&A, scenarios, CBA, mainstreaming)? Are data regularly being collected on weather and climatic parameters? Is seasonal forecasting information available to farmers on a recurrent basis? Is climate change adaptation integrated into national curriculums (primary and secondary)?	**T2.** Climate change education, training, and awareness - National curriculum design - Media-communication **T5.** Economics of climate change adaptation - Investment appraisal for climate change options. **T6.** Application of V&A approaches and tools **T11.** IT, GIS and data integration **T12.** Climate change modelling and scenarios	**M6.** Results based management - Monitoring and evaluation **M7.** Financial management **M10.** Project management **M11.** HR and resource management	**P3.** Team building **P4.** Speaking and presenting to groups **P5.** Listening and interpretation **P6.** Establishing rapport **P7.** Cross-cultural understanding **P8.** Cooperation **P10.** Participatory planning and decision-making **P12.** Communicating outwardly: face-to-face, phone, email, text **P13.** Gender mainstreaming

3.2 Steps in the Process

Skills assessments can be implemented through a series of steps which may include some or all of the following (see Appendix 3 for more details):

1. Define the purpose of the skills assessment
2. Define the scope of the skills assessment
3. Review relevant documents
4. Identify stakeholders and their roles
5. Develop skills assessment plan
6. Conduct interviews/meetings and collect data
7. Classify the collected data
8. Analyze findings
9. Share and discuss findings with stakeholders
10. Identify gaps and design skills development plan

As shown in the Niger case presented in section 3.3 below, assessment begins with defining purpose and scope, in collaboration with national stakeholders. This is best understood by defining a specific adaptation outcome that a country is trying to achieve.

Defining and an adaptation outcome allows the focus of the skills assessment to be narrowed before investing too much time in time consuming data collection. From an understanding of the desired adaptation outcome, more specific institutional capacities can be identified using Table 1, and from there priority skills development needs can be pin pointed.

Defining the scope also helps to identify the stakeholders that should be involved. And while all stakeholders should understand the general goals of the assessment, it is particularly important that the members of the assessment team (national and international) share an advanced and common understanding both of scope and methodology.

3.3 The Niger Experience

The approach presented above was field tested during a mission to Niger in May 2014 carried out by the NAP Global Support Programme at the request of the Government of Niger. The objective of the mission was to support the government in a stock-taking of NAP-related activities, as a contribution towards defining a road map to integrate climate change adaptation into national planning and budgeting. The mission was consistent with Element A (Lay the Groundwork and Address Gaps) of the LEG technical guidelines for national adaptation planning[2].

The findings showed a number of areas where skills development is needed (see Table A1 below). For example, for **climate adaptation policy and science (T1)** at the Policy level, the team observed a presence of knowledge and skills in sector policy development, i.e. health, water, food security, geology and mineral mining, yet less evidence of abilities to assess the policy implications of climate change within these sectors, or across sectors. Government staff confirmed this finding and stated that the emergence of related skills is hampered not only by the absence of a dedicated skills development program, but also by a continuing lack of clarity on departmental mandates for climate change adaptation.

[2] NAP Technical Guidelines (UNFCCC – LDCF 2012) available on www.unfccc.int.

The skills assessment framework was field tested during a mission to Niger in May 2014 carried out by the NAP Global Support Programme at the request of the Government of Niger

The need for **team building and coordination (P1 and P3) at the Organisational level** were referred to during virtually all interviews. No formal cross practice or collaborative management models are currently in place in any of the institutions represented in the interviews. Specific skills identified in order to promote better coordination included: joint objective setting; prioritization and agenda setting, participatory decision making, work-plan development, and data harmonization and sharing.

The mission noted frequent references to **human resource management (M11) needs at the Operational level** both in terms of data on absolute numbers in key departments of the government, as well as related expertise. This finding relates as much to core functions in public administration as to climate change yet serves to show that skills assessments for adaptation planning cannot be understood in isolation from other fundamental competencies that need to be in place.

Retaining personnel who have previously been trained on climate change was identified as a specific challenge for skills development, with several examples cited of staff subsequently moving to other positions, resulting in a net loss of both financial and human resources. Building a systematic and recurrent approach to training delivery provides the only effective response to this, which implies shifting towards a wholesale approach based on capacity development for national education and training institutions.

Table A1 highlights practical entry points for national skills development for NAPs emerging from the Niger skills assessment, including technical, managerial, and participatory elements. These are organized over an initial 3-year timeframe and combining short-term, informal training events with longer-term, formal education initiatives. The table further identifies enabling measures, for example engagement with national education and training institutions, which are designed to shift training delivery from ad hoc events towards more systematic and recurrent approaches that are clearly linked to defined national priorities.

Table A1 - Entry points and timeline for national skills development

IMMEDIATE MEASURES: YEAR 1

TECHNICAL SKILLS	MANAGEMENT SKILLS	PARTICIPATORY SKILLS
T1 Climate change fundamentals for technical staff and policy makers (basic science, policy, planning, and economic analysis). T5 Introduction to climate change financing, sources, modalities, access requirements and alignment needs. T5 Budgeting for climate change adaptation through a benefit based approach.	M1 Leadership and Negotiation M4 Communication and advocacy for climate change adaptation M8 Conflict management skills for policy makers.	P4 Speaking and presentations to groups P7 Cross cutting cultural needs and gender mainstreaming P10 Participatory decision-making for managers and policy makers.
ENABLERS Detailed workflow analysis, time-based staffing plans and training schedules Capacity development for national training institutions in learning methods and instructional design. Train the trainer programme in climate change fundamentals for national training institutions, CNEDD and selected sector staff.		

MID TERM MEASURES: YEARS 2-3

TECHNICAL SKILLS	MANAGEMENT SKILLS	PARTICIPATORY SKILLS
T3 Implementing NAP policies and strategies at subnational and district levels. T2 National curriculum development for climate change adaptation at bachelor degree level to increase and sustain professional intake across all government sectors. T2 Integrating NAP into primary and secondary school curriculum, and teacher training programmes. T2 Skills development for journalists and the media to improve reporting skills and public outreach on NAP and national development.	M1 Decision making for complex management issues and uncertainty. M9 International climate change diplomacy for senior managers and policy makers. M6 Results based management theory and practice for managers.	P1 Coordination and collaboration skills for policy makers and managers
ENABLERS Advanced techniques in data collection, analysis, documentation and utilization processes. Partnership development with international institutions and networks for national education and training institutions.		

The mission demonstrated the importance of building up a cross-government cohort of staff ready to assume technical and managerial roles in implementing climate change adaptation policy in Niger.

The mission identified several national education and training institutions with both the capacity and intent to act as future training service providers for the public sector and for wider society through national curriculum development. These institutions constitute a cornerstone in any future skills development programme for climate change adaptation.

Finally skills development needs for adaptation planning were framed within a broader context of systemic challenges over the recruitment, management, retention, and professional advancement of public sector staff.

The need for team building and coordination were frequently referred to during the mission

4. Conclusions

National Adaptation Plans (NAPs) are the latest installment in a history of efforts to bolster the capacities of developing countries, particularly within the public sector, to address climate change risks. Capacity building efforts have initially focused on increasing understanding of climate science and enhancing the policy structure at the national level.

With mounting scientific evidence of the impacts of climate change and as public awareness of climate change has increased, more sophisticated capacity development approaches are being embraced which can make better sense of the complex mix of institutional measures needed for adaptation planning to be successful and how these should be backed by well-tailored and recurrent skills development.

This skills assessment framework is derived from experience acquired during a joint UNDP-UNITAR Global Water Partnership mission carried out in Niger in May 2014, under the National Adaptation Plan Global Support Programme (NAP-GSP).

The following issues and conclusions, which will inform future iterations in the development of this assessment tool and framework, are derived from the Niger experience.

1. **Common understanding of the skills assessment framework –** In order to be successful, the approach demands consistency in application of the skills assessment framework among team members. A common understanding of the framework, its objectives, and outputs, as well as a harmonized methodology for data collection clearly referring to the skills coding system (P.1, P.2, M.1, M.2, T.1, T.2, etc.) is necessary.

2. **Use of the skills assessment framework –** Systematic training of teams embarking in the assessment process is required in advance, specifically on the scope and objective of the assessment, methodology to be used, and research and communication protocols among team members.

3. **Data management –** Tight mission schedules inevitably lead to loss of data which assessment teams may not have the time to compile, or which remain in note form only (never circulated more widely). An agreed data gathering protocol is needed in advance with one individual tasked with ensuring that all data is gathered and organised, ideally by the end of the mission.

4. **Longer term data collection –** Systematic data collection has proved to be very timeconsuming. In order to overcome this challenge, support from a full-time researcher for longer periods is a visable, specifically to ensure full and consistent data collection.

5. **Visual presentation of findings –** Having collected and analysed data, strong visualization can significantly increase the impact of findings.

Appendix 1: Socio-Cultural Action Analysis (SoCAA)

The national skills assessment framework and model questions, described above, were designed by using a research method protocol called Socio-Cultural Action Analysis or "SoCAA". SoCAA is an integrated method based on ethnographic and qualitative research assumptions, techniques and tools that help identify and analyze the socio-cultural, political and economic contexts that define the climate change adaptation activities in any country. Introduced as "Climate Action Intelligence" (CAI) in six LDCs (Congo/Brazzaville, Ethiopia, Kenya, Lesotho, Malawi, and Senegal), a full SoCAA process provides detailed information and visuals about the linkages between national institutions, individuals, and activities over time in any given geographic location. The process also provides insight into the complex sets of social relationships that impact the planning, coordination, implementation, and monitoring of climate change adaptation activities in the countries.

The SoCAA process is an iterative method that includes data collection, analysis, and synthesis stages. Standard to most data collection and analysis cycles, the value added by SoCAA is its classification and tagging standard that allows for the integration of multiple and diverse datasets, the linking of visual analytic tools, and the ability to quickly share and communicate information across diverse technical sectors. It is this classification standard that informs the skills assessment framework and questions outlined above.

Beginning with the gathering and collection of data, SoCAA can sort and manage a vast variety of primary and secondary sources including existing datasets, documents (e.g. reports, project documents and donor reviews), internet feeds, key informant interviews, local observational data, etc. SoCAA promotes an ongoing iterative and participatory process, and as the data is collected, both a standard code and locally (participatory) defined codes are used to tag the information. Using these codes, data can be integrated for use in visual analysis and communication. Visual products (social network maps, geo-spatial maps, time lines, and linguistic visuals) allow themes and trends to be easily communicated.

Appendix 2: Reference List of Key Skills for National Adaptation Planning

TECHNICAL

T1 CLIMATE CHANGE SCIENCE AND POLICY Climate change adaptation policy and science	**T7 IT, GIS AND DATA MANAGEMENT** IT, GIS and data integration ICT and data management skills Software skills GIS skills Geo-referencing skills
T2 CLIMATE CHANGE EDUCATION Climate change education, training, and awareness Training content design and delivery National curriculum design Media communication	**T8 FORESTRY** Tree nursery management skills Fruit tree management skills Forestry management skills Forestry Inventory management skills Bee keeping skills
T3 CLIMATE CHANGE MAINSTREAMING AND IMPLEMENTATION Climate change mainstreaming and implementing policies Sector-wide approach skills National budget process	**T9 WATER MANAGEMENT** Water Resources Irrigation engineering skills Hydrology assessment skills Hydro-meteorological statistical analysis skills Sustainable water use management skills Fisheries management skills Fish research skills Fish farming skills
T4 LEGAL AND NEGOTIATION SKILLS Legal drafting and review Climate change negotiation skills	**T10 LAND USE MANAGEMENT** Sustainable land use management skills Land husbandry skills Sustainable waste management skills Crop production skills Extension delivery skills Livestock production skills Food security skills Income generation skills Processing and marketing skills
T5 CLIMATE CHANGE ECONOMICS AND FINANCE Economics of climate change adaptation Cost-benefit analysis Sustainable livelihoods National development strategy Investment appraisal for climate change options	**T11 DISASTER RISK MANAGEMENT** HIV and AIDS mainstreaming skills Flood management skills Flood forecasting skills Drought forecasting skills EWS development skills Survey and mapping skills Community resilience
T6 CLIMATE RISK ASSESSMENT Application of V&A approaches and tools Environmental assessment skills Climate change proofing	**T12 CLIMATE CHANGE MODELLING AND SCENARIOS** Climate monitoring skills Monitoring equipment maintenance

MANAGEMENT

M1 STRATEGIC LEADERSHIP	**M7 FINANCIAL MANAGEMENT** Budgeting skills Resource mobilization Resource management
M2 SOCIAL RESPONSIBILITY Appreciating/applying social responsibility, sustainability, humanity and ethical considerations	**M8 CONFLICT MANAGEMENT**
M3 VISIONING, CREATING, AND INSPIRING	**M9 INTERNATIONAL CLIMATE CHANGE DIPLOMACY**
M4 ADVOCACY	**M10 PROJECT MANAGEMENT** Project development Cross-cutting management
M5 TIME MANAGEMENT Managing upwards and sideways	**M11 HUMAN RESOURCES MANAGEMENT**
M6 RESULTS BASED MANAGEMENT Planning for outcomes Monitoring and evaluation skills	**M12 REPORTING SKILLS**

PARTICIPATORY

P1 COORDINATION	**P8 COOPERATION**
P2 COMMUNICATION	**P9 CONSENSUS BUILDING**
P3 TEAM BUILDING	**P10 PARTICIPATORY PLANNING AND DECISION-MAKING**
P4 SPEAKING AND PRESENTING TO GROUPS	**P11 PARTICIPATORY LEARNING AND ACTION** Training skills Community mobilization
P5 LISTENING AND INTERPRETATION	**P12 COMMUNICATING OUTWARD** Face-to-face, phone, email, text
P6 ESTABLISHING RELATIONSHIPS	**P13 GENDER MAINSTREAMING**
P7 CROSS-CULTURAL UNDERSTANDING	

Appendix 3: Steps to Implement a Skills Assessment

This annex outlines the ten main steps needed to implement a national skills assessment. The following sample questions and items can help a skills assessment team complete each step.

1. Define the purpose of the skills assessment

- Why is a skills assessment being undertaken?
- What information is being sought?
- Who is the skills assessment for?
- How will the results (findings) be used?

2. Define the scope of the skills assessment

- Which implementation levels need to be assessed?
- Which sectors will be included?
- Which type(s) of adaptation skills will be included?
- What resources are needed?

3. Review relevant documents

- Stock-take and review the main climate change documents (strategies, capacity needs assessments, sectoral documents, etc.) produced at national, sub-national, and local levels
- Identify any potential literature source (consultancies reports, academic papers, grey literature, etc.) that can offset gaps into national policy documents

4. Identify stakeholders and their roles

- Stakeholders may include the following:
  - National government offices
  - Representatives of partners and relevant organizations
  - Technical Advisory Groups
  - Local community representatives
  - Community researchers
  - Organisational staff
  - Donors and other supporters

- Identify ways that each of the groups and individuals could be meaningfully involved in the process
- Clarify expectations and outcomes of the skills assessment
- What expectations do various stakeholders have for the skills assessments?
- What information is needed by whom?
- How will the findings be used by different stakeholders?

5. Develop the skills assessment plan

- Sites
  - How will sites be selected?
  - How many communities or sites need to be involved to provide meaningful and useful findings?

- Time
  - How much time is needed to prepare?
  - How much time will be needed to gather and record the data?
  - How long it will take to document, transcribe, and code the data?
  - Will there be time for the team after interviews to reflect on conversations held and make preliminary observations about information collected?
  - How much time will be needed to analyse and prepare reports?

- People
  - How many participants or respondents are needed?
  - Who needs to be involved in each part of the assessment framework planning and use, and how will their participation be encouraged?
  - How many people are willing to help with the assessment tasks?
  - What skills, knowledge and experience in particular methods do the staff and others who will take part in the process have?
  - What sort of training might be required in particular methods to increase the quality of the process, the data collected, and the analysis and reporting of that data?
  - What level of technical and other support can organizations provide that could help the team effectively conduct the assessments?
  - Which particular groups of people need to be involved? (i.e. female and males, people from different castes or ethnic groups, older and younger people, etc.)
  - How many communities or sites need to be involved?

- Data collection methodology
  - Which questions need to be answered?
  - What has been used before, and how well did they work?
  - What will work best for which particular group? (i.e. take into account issues such as the local culture, gender, age, literacy and education levels)
  - Will interviews be conducted, short surveys administered, or local meetings held?
  - Will participatory techniques be used?
  - How much will it cost in money and other resources to complete each part of the assessment?

6. Conduct interviews/meetings and collect data

- Is it clear who is in the team going to ask what and to whom?
- How data will be practically recorded during the interviews (Excel sheets, Word docs, voice-recording equipment, etc.)?
- How will the data be collected and stored?

7. Classify the data collected

- Who will be responsible for organizing all information from team members?
- Does all data clearly fit with the skills assessment framework?
- To which level and categories do collected data refer?
- Has enough information been collected to start to summarize and make observations?
- Is it possible to fill the data collection gaps through other source of information (national reports, informal conversation, etc.)?
- Is it possible to do a follow up with the individuals interviewed?

8. Analyze findings

- Who will be responsible for the data analysis?
- Does help the information collected and classified through the framework to identify skills gaps?
- Have skills gaps emerged at different levels (policy, organisational, and/or operation) and in the three skill sets (technical, management, and participatory)?
- How can be these gaps addressed in the short and medium term?
- Which structure will the report follow?

- What is it important to highlight in the report?

9. Share and discuss findings with stakeholders

- Develop a communication and reporting strategy
- What are the communication flows between the assessment team and various stakeholders?
- What is the best way to communicate the assessment findings and recommendations to different stakeholders?
- Help stakeholders understand the wider social, cultural, and communication context and its effect on climate change adaptation
- Help stakeholders understand how and why social change (adaptation) happens?
- Help look at the issues of concern from multiple perspectives
- Share and discuss report and development plan with stakeholders
- What is the feedback from stakeholders on the skills assessment and any gaps found?

10. Design skills development plan

- Based on findings from the skills assessment, develop a plan and timetable to develop skills for climate change adaptation
- National support staff and others involved in the assessment process need to be involved as timelines and roles and responsibilities are clarified

About UNITAR

The United Nations Institute for Training and Research (UNITAR) is the principal training arm of the United Nations, working in every region of the world. UNITAR empowers individuals, governments and organizations through knowledge and learning to effectively overcome contemporary global challenges. UNITAR's training targets two key groups of beneficiaries: the delegates to the United Nations and others who develop intergovernmental agreements establishing global norms, policies, and programmes, and the key national change agents who turn the global agreements into action at the national level.

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