

Rapid Institutional Analysis for Adaptation (ARIA): Putting The World Resources Institute's (WRI) Functions-Based National Adaptation Capacities (NAC) Approach to Work

Project Summary:

The ARIA project will develop and deploy a tool for civil-society organizations to aid national governments in responding to climate change. The project focuses on identifying gaps in institutional capacity for long-term planning, coordination, and service delivery. Providing tools for civil society organizations to evaluate institutional capacity is a key component of a broader WRI strategy to focus adaptation efforts on the needs of vulnerable populations, the ecosystems they depend on, and the systems of governance which aid in development and resilience.

Background and Justification:

Planning and implementing adaptation to climate change (hereafter "adaptation") is a complex challenge that will cut across many economic and political sectors, as well as levels of government. Thus far, the strongest pushes for adaptation have taken place at the international level and at the community based level. If adaptation actions are to have their greatest effect, however, they must be taken at the national level, a still-nascent area for action in most countries. When national governments do undertake actions, in order to ensure the highest quality of spending, they must be sufficiently transparent, accountable, and inclusive. Additionally, they should be able to carry out both short-term projects and carry out long-term capacity-building for resilience.

Adapting to climate change requires more than current international processes can offer.

Global processes have encouraged countries to design National Adaptation Programs of Action (NAPAs), which may lead to significant new funding. NAPA programs have been largely seen as a trust-building exercise through international climate negotiations, facilitating reparations for damage caused by rich countries to poor countries. Regardless of the merits of this argument, NAPAs have generally been found to severely underestimate the amount of spending necessary (by 200-300%) and may, in some cases, misappropriate spending priorities (Parry et al. 2009). Specifically, the costs of adaptation are not likely to be covered solely by the funds available through the Adaptation Fund provided in the Copenhagen Agreement. This implies that governments will have to undertake activities not directly funded through internationally designated "adaptation" funds in order to increase resilience and lessen vulnerability. As a result, useful planning must include financing from outside the NAPA framework. Another finding, through our own analysis, is a heavy emphasis on project-based funding, which, while critical, does not address the need for medium- and long-term planning, coordination, or capacity development.

In order to reach scale, disparate local efforts adaptation will need national planning, coordination, and support.

There has also been significant movement at the local level, with hundreds of dispersed village- or municipal level projects and programs aimed at awareness-raising, capacity development, and deployment of adaptive technologies. While these elements will be critical to both rural and urban adaptation to climate change, they often do not address the fundamental issue of building local, provincial, and national government structures. Without such structures, few such projects can be scaled out from pilot project to wide-scale programs. Similarly some responses to climate change might simply be impossible to deal with at the community scale such as river basin management.

Newly emerging institutional approaches to adaptation will need civil society ownership and monitoring.

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There has been some movement at the national level to assess and adapt institutions to prepare for the effects of climate change. The World Bank has led the process for developing Pilot Programs for Climate Resilience (PPCRs) to encourage governments to develop medium- and long-term planning approaches to climate adaptation. While early work on the PPCR is promising for its attention paid to institutional development, it will need both independent monitoring and evaluation, and will need to foster in-country ownership and accountability. Civil society organizations can play a key role in creating ownership and accountability through national assessments and advocacy.

Such approaches need to take into account vulnerable populations, complexity, and inter-institutional coordination.

The inter-sectoral, multi-level responses needed to adapt to climate change will often be complicated. In an attempt to divide these complicated responses into workable achievable results,, scholars and planners have divided the tasks along a number of lines. Some divide the responses along the lines of impacts, such as “glacial melt” or “migration of insect-borne disease” (McGrath and Sukali 2009). Others (IPCC 2007) have divided this along the lines of particular industrial sectors or public sector programs such as “drinking water” or “biodiversity.” Still others have suggested dividing planning for climate adaptation along ministerial or institutional lines (Agrawal 2007).

While these approaches are all worthwhile means of “slicing” the climate adaptation challenge, they miss some of the critical areas for action that effective climate adaptation will need to address. Impacts-based approaches will miss out lesser impacts that may affect vulnerable populations, but may not make national headlines (as an example, heat stroke may kill more children or elderly). Sectoral approaches may miss critical cross-sector impacts, such as addressing the multi-dimensional interactions of aids and increased drought in many countries. Finally, a ministerial or institutional approach may miss out on key elements of coordination and inter-ministerial information systems. A robust approach would capitalize on the benefits of each such approach to “slicing” but would also be capable of capturing important coordination actions and critical needs of the most vulnerable populations.

WRI has developed an approach to integrate these concerns.

In response to these many challenges as well as encouragement by partner organizations, WRI has developed a functions-based approach, referred to as Climate Adaptation for People and Environment (CAPE – working title) over the last year, which identifies key functions for climate resilient institutions¹. The approach recognizes that adaptation will take different forms in different countries. It also recognizes that reduction of vulnerability will require actions on the part of institutions that are instantly recognizable as “adapting to climate change” and others that build resilience by reducing other drivers of vulnerability. Further, the approach recognizes that priority areas for action will necessarily be country specific, and it thus provides a framework which can be applied to identify institutional capabilities across sectors, populations, ministries, infrastructure types, and impacts. Finally, the approach seeks to include inter-institutional planning, alignment, and service delivery which do not easily fall into one of the above priority areas.

ARIA is the civil society prong in a two-pronged approach by WRI to deploy this approach.

WRI’s Climate and Energy Program has worked to get the CAPE framework integrated into a number of top-down processes, including assessments for targeting adaptation aid (with DfID) and with the World Bank’s PPCR. But to safeguard the integrity of these processes, as well as to address adaptation in a wider range of processes, WRI has begun development of the ARIA toolkit and plans deployment in 2010. ARIA will empower NGOs working in national contexts to assess both the substantive and

¹ The framework was initially developed at a workshop in Bellagio, Italy, and was previously called the Bellagio Framework for Adaptation Assessment and Prioritization [[link](#)].

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procedural quality of institutions and processes dealing with adaptation. The tool builds upon the expertise of the Institute's Access Objective staff and partners in the Access Initiative who have 10 years of experience assessing government access to information, public participation, and access to justice in matters affecting the environment. While the project is separate from past Access Initiative work, it is complementary, as the framework highlights opportunity (or lack thereof) for civil society engagement in adaptation processes.

Project Objectives:

- **Capacity building for CSOs:** By carrying out assessments on national institutional capacity for adaptation, advocates for the poor, the environment, and vulnerable communities will be empowered to more effectively and systematically engage government officials in adaptation planning; and to advocate for improvements in adaptation including improved land use planning, disaster management, and other adaptation strategies that are more responsive and accountable to public need. Furthermore, this will address the lack of agendas for adaptation advocacy by civil society in many countries.
- **Demand government response for adaptation:** This tool will promote adaptation planning from the bottom up. Thus far, much of adaptation planning has been "top-down" from global processes. ARIA will provide a cost-effective means to enhance CSO-government dialogue. Specifically, it will assess both the comprehensiveness and accountability of national institutions as well as access to information, public participation, and access to justice in key adaptation decisions.
- **Civil society monitoring:** An international consensus has emerged that developing countries should undertake institutional analysis in preparation for adaptation planning, but we know of no global-level project designed to create a bottom up demand for these activities from citizens of these countries. ARIA will help triangulate results from international and national efforts to analyze institutional readiness. Such monitoring will aid in establishing a baseline for future assessments.

Outputs:

- **Dialogue between NGOs and government over aspects of climate adaptation.** The primary purpose of ARIA is to increase civil society capacity to engage government in constructive dialogue based on evidence and careful analysis of ongoing efforts.
- **ARIA National Report, highlighting priority capacities for Adaptation.** Each ARIA national project will produce a brief written analysis of efforts and institutional needs at the broad national level as well as the local level.
- **Evidence-based advocacy for Climate Change, based on an ARIA National Report.** Each ARIA project will aim to reform legal structures, administrative guidelines and practices in order to address key institutional gaps.

Activities and duration:

ARIA projects activities fall into four stages. Figure 1 outlines these stages. While NGOs undertake the bulk of the work, members of the government will serve as advisors, ensuring quality, relevance, and publicity.

- **Priority areas workshop:** The NGO coalition works with members of the government to identify priority areas for action. Priority areas may include vulnerable populations, impacts, sectors, particular agencies or ministries, geographies, or infrastructure types. (A draft outline of this workshop is included as an annex.)

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- **Assessment:** The NGO coalition will work to apply the CAPE framework to both broad national institutions (such as climate modeling or census data gathering) and to priority areas.
- **Prioritization of Reform:** Both the NGO coalition and members of the government will work to identify which of the many of the gaps (1) are a high priority and (2) which can be feasibly addressed within given political and economic constraints.
- **Advocacy:** Information gathered through the Assessment will be used to advocate for priority reforms through context-appropriate channels.

The total research time will be 5-6 months.

ARIA Project Structure

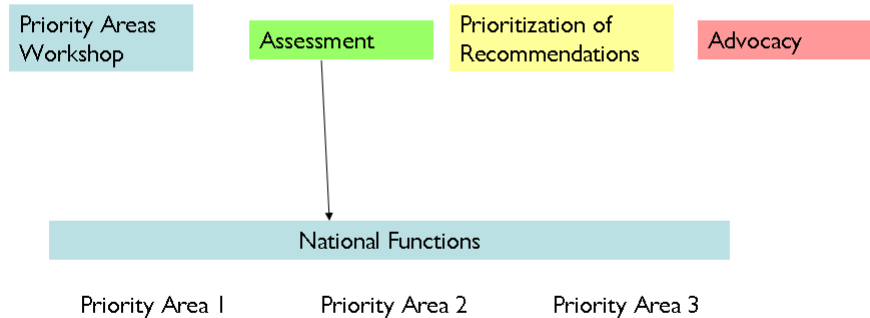


Figure 1. ARIA Project Structure

Beneficiaries and impacts:

Project will benefit three key stakeholder groups:

- NGOs in terms of capacity-building
- Governments in terms of verifying and helping identify priority institutional capacity development
- Communities vulnerable to the impacts of climate change

Within two years, the project will have demonstrated that these assessments and follow up strategies can help representatives and stakeholders in vulnerable communities better understand the challenges of adaptation planning and more effectively engage in these processes. Local partners will have systematically assessed the transparency, inclusiveness and accountability of the national government agencies entrusted with preparing for and responding to the impacts of climate change (e.g. ministries responsible for agriculture, energy,

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development, and land management). The results of the assessments will be shared with representatives and stakeholders from vulnerable communities and will form the basis for longer term engagement and advocacy strategies. Local governments, donor agencies, and the general public will also have a better understanding of national government capacity to raise and invest the resources necessary to prepare society for the impacts of climate change.

Project management:

WRI will serve as the secretariat for project deployment, including partner selection, and ushering global quality control review prices. Lead organizations within countries will be responsible for coalition formation, preparing reports, and assembling members of government agencies.

WRI currently has good prospects in terms of financing staff and overhead costs of pilot testing for calendar year 2010, but has not yet secured funding for in-country pilot tests.

About WRI:

WRI is an environmental think tank that goes beyond research to find practical ways to protect the earth and improve people's lives. Our mission is to move human society to live in ways that protect Earth's environment and its capacity to provide for the needs and aspirations of current and future generations.

We organize our work around four key programmatic goals:

- **People & Ecosystems:** Reverse rapid degradation of ecosystems and assure their capacity to provide humans with needed goods and services.
- **Governance:** Empower people and support institutions to foster environmentally sound and socially equitable decision-making.
- **Climate Protection:** Protect the global climate system from further harm due to emissions of greenhouse gases and help humanity and the natural world adapt to unavoidable climate change.
- **Markets & Enterprise:** Harness markets and enterprise to expand economic opportunity and protect the environment.

WRI's Access Objective seeks to expand access to information, public participation, and access to justice in matters affecting the environment. Since 2000, WRI has served as the secretariat of the Access Initiative, the world's largest network of civil society organizations dedicated to ensuring that people have a voice in the decisions affecting their environment. (Please visit <http://www.accessinitiative.org> for more information.) Recently, partner organizations within the Access Initiative have begun to focus energies especially on the difficulties of climate change.

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References:

Agrawal, A. 2007. Adaptation, Institutions, and Livelihoods. Draft Paper shared by electronic communication October 3.

Intergovernmental Panel on Climate Change (IPCC). 2007. *Climate Change 2007*.

McGrath, J. and E. Sukali. 2009. *The Winds of Change: Climate Change, Poverty and Environment in Malawi*. Oxfam International. Online Edition.

Parry, M., N. Arnell, R. Tiffin, and T. Wheeler. Assessing the costs of adaptation to climate change: a review of the UNFCCC and other recent estimates.

ANNEX: WRI Functions-Based Framework for National Climate Adaptation:

The CAPE framework analyses government functions for adaptation, without passing judgment over where those functions are housed (in terms of ministry, national or sub-national, etc.). The ARIA toolkit and assessment will consist of two parts – the “national” and “priority areas.” Figure 2 shows these elements. For the “National”² level, overarching adaptation functions will be assessed, including Planning Functions (yellow) and Alignment Functions (blue). For priority areas, Planning (yellow), Alignment (blue), and Service Delivery Functions (pink) will be assessed. The arrows represent that for each Service Delivery function (infrastructure, social protection and natural resources), additional planning and alignment will take place.

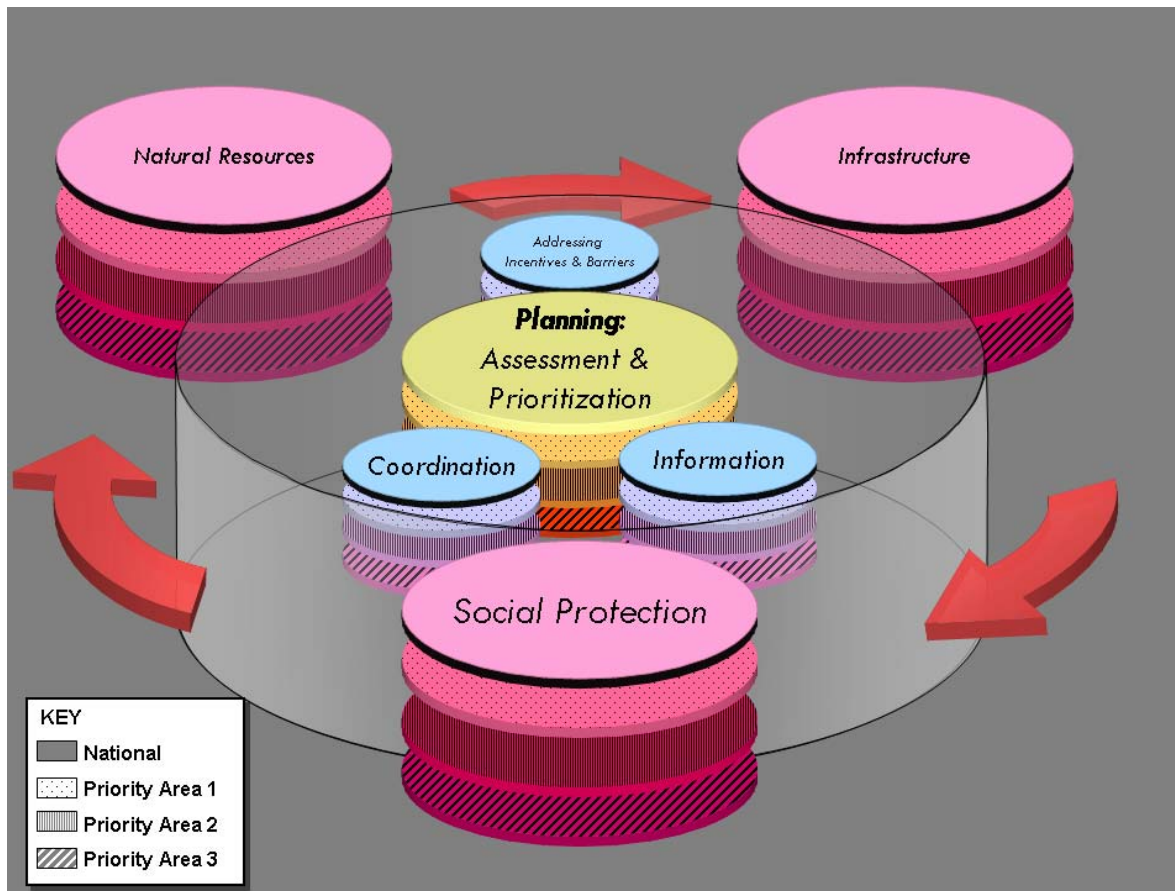


Figure 2 ARIA Framework conceptual diagram

The National Adaptive Capacity Framework: Key Institutional Functions for a Changing Climate

² We use the term “National” for now as a place holder, acknowledging that many priority area functions will also be national in terms of level, if more specific in terms of sector or agency.

Section I: Macro-Level Functions

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WRI’s National Adaptive Capacity (NAC) framework aims to identify a fundamental set of national-level functions that all countries will need to perform if they are to be adapting effectively over time. Of course, in each country these functions will be performed differently, according to their national circumstances, but the core function – assessing vulnerability, planning and prioritizing, managing information, etc. -- is the same across countries. The capacities to perform these functions can be thought of as elements of a national “adaptation system” that can support and facilitate adaptation action by governments, communities, businesses and others.

Key definitions:

- **Policy** – The term policy, as used here, is meant to include both policy formation and policy implementation.
- **Assessment** – Assessment, for purposes of this framework, refers to macro-level identification of needs, priorities and options (rather than project- or program-level EIAs).
- **Coordination** – the term coordination covers actions including information-sharing, resource-sharing, and joint action between institutions
- **Enforcement** - The term enforcement, as used in this document can mean both enforcement of a policy by private citizens, organizations, or the government. This can take place through dedicated tribunals (established by statute), investigation and regulation (by government officers, such as auditors, ombudsmen, states’ attorneys, and regulatory bodies), citizen suits, administrative review, human rights tribunals, tort claims as appropriate to the context, parties, and particular grievance.

The NAC framework looks at the capacity to perform each of these functions through three categories of evaluation questions:

- **Outputs** – Outputs are the result of a process. They may include products (such as a database), a document (such as a law or a plan), and decisions (from an official body).
- **Institutions** – Institutions, for purposes of this framework, are formal organizations (often, but not always governmental) which have defined roles and responsibilities.
- **Implementation** – Implementation can take place on three levels. In some countries, implementation may include further steps to make a policy official, including budget appropriation and, in some cases, writing a decision into code or official guidelines. In most, an official policy, as enacted, must be mainstreamed in the processes of an institution. Finally, those processes must be carried out. In this draft of the NAC framework, the term “implementation” is ambiguous as to which of these three levels represent sufficient adaptation.

SECTION 1: Macro-level Policy

Planning Function 1: Assessment – as an input to identifying adaptation needs, priorities, and options		
	Functions	Elements to Look For
Planning Functions	A. Output: To what extent has a <i>national vulnerability and impacts assessment</i> been conducted?	Comprehensiveness <ol style="list-style-type: none"> 1. Assessment includes exposure to climate impacts 2. Assessment includes socioeconomic drivers of vulnerability Transparency and Participation <ol style="list-style-type: none"> 3. Assessment methodology is made transparent 4. Broad set of stakeholders were engaged in assessment development

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	<p>B. Output: To what extent have existing adaptation efforts been <i>systematically inventoried</i>?</p>	<p>Comprehensiveness</p> <p>5. Assessment includes a review of existing sub-national assessments, including community-based assessments.</p> <p>Transparency and Participation</p> <p>6. Assessment methodology is made transparent</p> <p>7. Broad set of stakeholders were engaged in assessment development</p>
	<p>C. Output: To what extent is there an assessment of climate risks to priorities in <i>major existing national planning documents</i>?</p>	<p>Comprehensiveness</p> <p>8. Key documents explicitly address climate change.</p> <p>9. Someone has reviewed key documents for climate sensitivity and resilience.</p> <p>Transparency and Participation</p> <p>10. Assessment methodology is made transparent</p> <p>11. Broad set of stakeholders were engaged in assessment development</p>
	<p>D. Institution: To what extent is a <i>system in place for regularly updating the above assessments</i> in the future?</p>	<p>Accountability</p> <p>12. An institution (or institutions) has (or institutions have) a mandate to produce A, B, and C iteratively over time.</p> <p>13. The mandated institution reports to an appropriate authority.</p> <p>14. The mandated institution coordinates appropriately with other institutions.</p> <p>Capacity</p> <p>15. Sufficient budget is provided for ongoing assessments.</p> <p>16. Staff carrying out assessment has sufficient skill and knowledge.</p>

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Planning Function 2: Prioritization – based on assessment findings (above) and current national development priorities	
<p>A. Output: Has an institution identified where, how, and to whom adaptation is a priority nationally?</p>	<p>Comprehensiveness</p> <p>17. Identification of priorities considers critical sectors, geographic regions, segments of the country’s population, ecosystems, and infrastructure</p> <p>Transparency and Participation</p> <p>18. Identification process is transparent and publicly available</p> <p>19. Broad set of stakeholders were engaged in identification process development; includes a range of stakeholders – including vulnerable and marginalized groups – in order to assure that priorities are informed by a broad range of perspectives.</p>
<p>B. Output: Have institutions been identified that may need reform or strengthening for adaptation to proceed effectively?</p>	<p>Comprehensiveness</p> <p>20. Institutional needs are identified in adaptation planning documents.</p> <p>Transparency and Participation</p> <p>21. Priority-setting and budgetary process is sufficiently transparent</p> <p>22. Broad set of stakeholders were engaged in identification process development; includes a range of stakeholders – including vulnerable and marginalized groups – in order to assure that priorities are informed by a broad range of perspectives.</p>
<p>C. Institution: To what extent is there a system in place for reviewing and adjusting priorities over time (as established in A and B)?</p>	<p>Accountability</p> <p>23. A time period and process have been set for revisiting priorities in A and B</p> <p>24. The mandated institution reports to an appropriate authority.</p> <p>25. The mandated institution coordinates appropriately with other institutions.</p> <p>Enforcement</p> <p>26. Decisions made in processes A and B can be enforced by officials and members of the public</p> <p>Capacity</p> <p>27. Resources have been allocated to support needed changes.</p> <p>28. Individuals tasked with the prioritization process have sufficient skills to carry out the process.</p>

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Alignment Function 1. Coordination of Adaptation Actors	
Functions	Elements to Look For
<p>A. Output: Have key services, sectors or activities been identified where coordination may be needed for successful adaptation?</p>	<p>Comprehensiveness 29. Needs are identified in adaptation planning documents.</p> <p>Transparency and Participation 30. Process for identification of needs has been made sufficiently transparent. 31. Priority-setting and budgetary process is sufficiently transparent</p>
<p>B. Output: Have clear coordination priorities and processes been established?</p>	<p>Transparency and Participation 32. Authorities make publicly available a description of the coordination process and justification for its selection 33. Priority-setting and budgetary process is sufficiently transparent</p>
<p>C. Institution: Has an authoritative body been tasked with adaptation coordination among relevant institutions?</p>	<p>Accountability 34. Coordinating body has a clear mandate 35. Participants in coordination have adequate flexibility to create innovative policies</p> <p>Capacity 36. Resources have been provided for coordination activities 37. Coordination body has appropriate membership and skill sets</p> <p>Enforcement 38. Decisions made in processes A and B can be enforced by officials and members of the public</p>
<p>D. Institution: Is there an institution tasked with reviewing adaptation coordination over time?</p>	<p>Accountability 39. A time period and process have been set for revisiting priorities in A and B 40. There is a system for monitoring or review of the coordination mechanism. 41. The mandated institution reports to an appropriate authority. 42. The mandated institution coordinates appropriately with other institutions.</p> <p>Capacity 43. Resources have been provided for review of coordination 44. Institution has appropriate membership and skill sets</p>

ALIGNMENT FUNCTIONS

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Alignment Function 2. Addressing Barriers to Adaptation	
Functions	Elements to Look For
<p>A. Output: Is there a general process to identify barriers to adaptation in the operations of government?</p>	<p>Comprehensiveness</p> <p>45. Are there standards or procedures for evaluating climate impacts and barriers to adaptation at the:</p> <ul style="list-style-type: none"> ○ policy level? ○ planning level? and ○ project level? <p>Transparency and Participation</p> <p>46. Are the standards and procedures available and well-publicized?</p> <p>47. Was the process for development of the standards and procedures sufficiently consultative?</p> <p>48. Do the processes and procedures contain guidelines for public comment and participation?</p>
<p>B. Output: Have processes been mainstreamed across ministries which would encourage agencies to consider actions to encourage?</p>	<p>Comprehensiveness</p> <p>49. Are there standards or procedures for adoption of actions to support (or at least, do no harm) to adaptation at the:</p> <ul style="list-style-type: none"> ○ policy level? ○ planning level? and ○ project level? <p>Transparency and Participation</p> <p>50. Are the standards and procedures available and well-publicized?</p> <p>51. Was the process for development of the standards and procedures sufficiently consultative?</p> <p>52. Do the processes and procedures contain guidelines for informed public comment and meaningful participation, including vulnerable individuals and communities?</p>
<p>C. Institution: Does an institution (or institutions) have a mandate to develop and amend standard and procedures over time based upon experience and review of A and B above?</p>	<p>Accountability</p> <p>53. There is an institution and a process with a clear mandate to revise A and B over time.</p> <p>54. There is a system to monitor and evaluate effectiveness of processes established in A and B.</p> <p>55. There is a mandate and timeline for revisiting A and B above and capturing “lessons learned” about processes for targeting adaptation incentives and barriers.</p> <p>Capacity</p> <p>56. Resources have been provided for process development and deployment</p> <p>57. Members of institution have sufficient skills and knowledge to establish and amend standards for A and B above.</p> <p>Enforcement</p> <p>58. Processes for A and B can be enforced by officials and members of the public</p>

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	<p>D. Implementation: Are selected policies implemented on the ground?</p>	<p>Implementation</p> <p>59. New policies are rolled out at relevant level. 60. Policy formulation, planning, and project processes mainstream procedures identified in A and B above. 61. An enforcement mechanism exists to assure implementation. 62. Sufficient budget is provided in support of implementation and enforcement.</p>
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Alignment Function 3. Information		
	Functions	Elements to Look For
ALIGNMENT FUNCTIONS	Gathering	<p>Output: Does the country have the necessary data for decisions for adaptation?</p> <p>Comprehensiveness</p> <p>63. Climate observation/monitoring systems are regularly maintained and updated 64. Demographic information systems relevant to climate change are regularly maintained and updated. 65. Environmental monitoring/observation systems are regularly maintained and updated.</p> <p>Transparency and Participation</p> <p>66. Methods for data gathering are made transparent and publicly available. 67. Data is publicly available in raw form. 68. Priorities in developing and improving data gathering are set through a process of broad stakeholder consultation.</p>
	Analysis	<p>Institution: Are appropriate systems for data gathering established?</p> <p>Accountability</p> <p>69. An institution(s) has a mandate to produce climate-adaptation relevant data. 70. The institution(s) undergoes a regular, public process of review and revision of its data gathering methods.</p> <p>Capacity</p> <p>71. Sufficient budget is provided for ongoing information analysis. Staff has appropriate skills and knowledge. 72. There is a system for capturing “lessons learned” on information gathering.</p> <p>Enforcement</p> <p>73. Officials and members of the public can ensure that the relevant institutions are able to carry out its mandate and maintain scientific integrity.</p>
		<p>Output: Is the necessary analysis for decisions for adaptation available?</p> <p>Comprehensiveness</p> <p>74. There a process for updating key definitions, especially those with critical legal and social ramifications. 75. Consolidation and analysis of historical climate information 76. Development of climate scenarios, including uncertainty estimates</p> <p>Transparency and Participation</p> <p>77. Methods for data analysis are made transparent and publicly available. 78. Analysis is comprehensible and communicated through appropriate channels to relevant stakeholders. 79. Priorities for analysis are set through a process of broad stakeholder consultation.</p>

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Dissemination	<p>Institution: Are there appropriate systems for information analysis?</p>	<p>Accountability</p> <p>80. An institution (or institutions) has a mandate to analyze climate-adaptation relevant information to key stakeholder groups.</p> <p>81. The institution(s) undergoes a regular, public process of review and revision of its data analysis activities.</p> <p>Capacity</p> <p>82. Sufficient budget is provided for ongoing information analysis. Staff have relevant skills and knowledge for analysis.</p> <p>83. There is a system for capturing “lessons learned” on information dissemination.</p> <p>Enforcement</p> <p>84. Officials and members of the public can ensure that the relevant institutions are able to carry out its mandate and maintain scientific integrity</p>
	<p>Output: Has a national platform (or network) for public information sharing on adaptation been identified (or created)?</p>	<p>Comprehensiveness</p> <p>85. There is a national platform (or platforms) which address the information-sharing needs of the broad range of stakeholders.</p> <p>Transparency and Participation</p> <p>86. National platform is well-publicized.</p> <p>87. National platform includes members of relevant stakeholder groups, especially representatives of the most vulnerable populations.</p>
	<p>Institution: Has a national platform (or network) for public information sharing on adaptation been identified (or created)?</p>	<p>Accountability</p> <p>88. An institution (or institutions) has a mandate to disseminate information broadly.</p> <p>89. There is a system for monitoring and evaluation of information dissemination, as well as revision of dissemination strategies.</p> <p>Capacity</p> <p>90. Sufficient budget is provided for ongoing information dissemination. Staff has relevant skills and knowledge.</p> <p>91. There is a system for capturing “lessons learned” on information dissemination.</p> <p>Enforcement</p> <p>92. There is a process of review to ensure that key information is shared between relevant officers within government.</p> <p>93. There is an efficient and fair means for individuals and organizations to demand climate-relevant information.</p>
	<p>Implementation: Is relevant information reaching key stakeholders who need it?</p>	<p>94. Relevant information is reaching key stakeholders³.</p>

³ Representatives of key government agencies say they have the information they need; Representatives of lower levels of government say they have the information they need; Key information is publicly available via a variety of channels; Representatives of the public (including vulnerable populations) report that they have access to this information; Key stakeholders are using information in decision-making and project implementation.

SECTION 1I: Priority Area Functions

Planning Function 1: Assessment – as an input to identifying adaptation needs, priorities, and options	
Functions	Elements to Look For
<p>E. Output: To what extent has a vulnerability and impacts assessment been conducted for the priority area?</p>	<p>Comprehensiveness 95. Assessment includes exposure to climate impacts 96. Assessment includes socioeconomic drivers of vulnerability</p> <p>Transparency and Participation 97. Assessment methodology is made transparent 98. Broad set of stakeholders were engaged in assessment development</p>
<p>F. Output: To what extent have existing adaptation efforts been systematically inventoried within the priority area?</p>	<p>Comprehensiveness 99. Assessment includes a review of existing sub-national assessments, including community-based assessments.</p> <p>Transparency and Participation 100. Assessment methodology is made transparent 101. Broad set of stakeholders were engaged in assessment development</p>
<p>G. Output: To what extent is there an assessment of climate risks to priorities in major existing national planning documents for the priority area?</p>	<p>Comprehensiveness 102. Key documents explicitly address climate change. 103. Someone has reviewed key documents for climate sensitivity and resilience.</p> <p>Transparency and Participation 104. Assessment methodology is made transparent 105. Broad set of stakeholders were engaged in assessment development</p>
<p>H. Institution: To what extent is a system in place for regularly updating the above assessments in the future for the priority area?</p>	<p>Accountability 106. An institution (or institutions) has (or institutions have) a mandate to produce A, B, and C iteratively over time. 107. The mandated institution reports to an appropriate authority. 108. The mandated institution coordinates appropriately with other institutions.</p> <p>Capacity 109. Sufficient budget is provided for ongoing assessments.</p>

Planning Functions

Section II: Priority Area Functions

Planning Function 2: Prioritization – based on assessment findings (above) and current national development priorities	
<p>D. Output: Has an institution identified where, how, and to whom adaptation is a priority within the priority area?</p>	<p>Comprehensiveness 110. Identification of priorities considers critical sectors, geographic regions, segments of the country’s population, ecosystems, and infrastructure</p> <p>Transparency and Participation 111. Identification process is transparent and publicly available 112. Broad set of stakeholders were engaged in identification process development; includes a range of stakeholders – including vulnerable and marginalized groups – in order to assure that priorities are informed by a broad range of perspectives.</p>
<p>E. Output: Have institutions been identified that may need reform or strengthening for adaptation to proceed effectively within the priority area?</p>	<p>Comprehensiveness 113. Institutional needs are identified in adaptation planning documents.</p> <p>Transparency and Participation 114. Priority-setting and budgetary process is sufficiently transparent 115. Broad set of stakeholders were engaged in identification process development; includes a range of stakeholders – including vulnerable and marginalized groups – in order to assure that priorities are informed by a broad range of perspectives.</p>
<p>F. Institution: To what extent is there a system in place for reviewing and adjusting priorities over time (as established in A and B)?</p>	<p>Accountability 116. A time period and process have been set for revisiting priorities in A and B 117. The mandated institution reports to an appropriate authority. 118. The mandated institution coordinates appropriately with other institutions.</p> <p>Enforcement 119. Decisions made in processes A and B can be enforced by officials and members of the public</p> <p>Capacity 120. Resources have been allocated to support needed changes.</p>

Section II: Priority Area Functions

Alignment Function 1. Coordination of Adaptation Actors	
Functions	Elements to Look For
<p>E. Output: Have key services, sectors or activities within the priority area been identified where coordination may be needed for successful adaptation?</p>	<p>Comprehensiveness 121. Needs are identified in adaptation planning documents.</p> <p>Transparency and Participation 122. Process for identification of needs has been made sufficiently transparent. 123. Priority-setting and budgetary process is sufficiently transparent 124. Broad set of stakeholders were engaged in identification process development; includes a range of stakeholders – including vulnerable and marginalized groups – in order to assure that priorities are informed by a broad range of perspectives.</p>
<p>F. Output: Have clear coordination priorities and processes been established?</p>	<p>Transparency and Participation 125. Authorities make publicly available a description of the coordination process and justification for its selection 126. Priority-setting and budgetary process is sufficiently transparent 127. Broad set of stakeholders were engaged in identification process development; includes a range of stakeholders – including vulnerable and marginalized groups – in order to assure that priorities are informed by a broad range of perspectives.</p>
<p>G. Institution: Is there an authoritative body with responsibility for adaptation coordination among relevant institutions for the priority area?</p>	<p>Accountability 128. Coordinating body has a clear mandate 129. Participants in coordination have adequate flexibility to create innovative policies</p> <p>Capacity 130. Resources have been provided for coordination activities 131. Coordination body has appropriate membership and skill sets</p> <p>Enforcement 132. Decisions made in processes A and B can be enforced by officials and members of the public</p>
<p>H. Institution: Is there an institution tasked with reviewing adaptation coordination for the priority area over time?</p>	<p>Accountability 133. A time period and process have been set for revisiting priorities in A and B 134. There is a system for monitoring or review of the coordination mechanism. 135. The mandated institution reports to an appropriate authority. 136. The mandated institution coordinates appropriately with other institutions.</p> <p>Capacity 137. Resources have been provided for review of coordination 138. Institution has appropriate membership and skill sets</p>

ALIGNMENT FUNCTIONS

Section II: Priority Area Functions

Alignment Function 2. Addressing Barriers to Adaptation	
Functions	Elements to Look For
<p>E. Output: For the particular priority area, have barriers to adaptation been identified?</p>	<p>Comprehensiveness 139.Has the responsible institution identified the most relevant barriers to adaptation within its priority areas?</p> <p>Transparency and Participation 140.Process for identification of needs has been made sufficiently transparent. 141.Broad set of stakeholders were engaged in identification process development; includes a range of stakeholders – including vulnerable and marginalized groups – in order to assure that priorities are informed by a broad range of perspectives.</p>

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	<p>F. Output: For this particular priority area, has an institution identified what incentives are needed in order for adaptation to proceed?</p>	<p>Comprehensiveness</p> <p>142. The responsible institution has examined multiple causes of barriers⁴.</p> <p>143. The responsible institution has considered a broad range of solutions. Where relevant, the responsible institution has considered addressing problems of infrastructure, natural resources and social safety nets.</p> <p>i. Full consideration of infrastructure-based solutions should include:</p> <ul style="list-style-type: none"> • A variety of options (“soft” options, “hard” options, ecosystem-based solutions, adjustment/removal of existing infrastructure, or any combination of the above) <p>1. Cost analysis, including total costs, cost effectiveness, comparisons of long and short-term options, and issues of benefit distribution across sectors, populations, and regions</p> <p>ii. Full consideration of ecosystem-based solutions should include:</p> <ul style="list-style-type: none"> • A variety of options (“soft” options, “hard” options, ecosystem-based solutions, or a combination of the above) <p>1. Cost analysis, including total costs, cost effectiveness, comparisons of long and short-term options, and issues of benefit distribution across sectors, populations, and regions</p> <p>iii. Full consideration of social safety nets should include:</p> <ul style="list-style-type: none"> • The full range of policy tools for providing safety nets, including market-based approaches (e.g. insurance) and options that support community-based safety nets. <p>1. Cost analysis, including total costs, cost effectiveness, comparisons of long and short-term options, and issues of benefit distribution across sectors, populations, and regions</p> <p>Transparency and Participation</p> <p>144. Authorities make publicly available a description of the process for selecting policies and justification for its selection</p> <p>145. Priority-setting and budgetary process is sufficiently transparent. Broad set of stakeholders were engaged in identification of barriers and solutions; includes a range of stakeholders – including vulnerable and marginalized groups.</p>
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⁴ For a particular sector, population, or place, sources of barriers to be considered include: policy framework; enforcement failures; Rates, charges, taxes, permits, or tariffs; zoning regulations; insurance premiums; standards; land tenure or other property rights structures; design of social protection programs; lack of awareness or information; lack of resources; sub-national institutional structure; lack of authority at a particular administrative level or body; market factors; sources of social inequity. The responsible institution has considered a broad range of players including: government agencies; sub-national government bodies; businesses; households; NGOs; and, community-based institutions.

Section II: Priority Area Functions

	<p>G. Institution: Does an institution (or institutions) have a mandate to adjust incentives over time based upon experience and review of A and B above for the priority area?</p>	<p>Accountability</p> <p>146. There is an institution and a process with a clear mandate to produce A and B over time. 147. There is a system for monitoring and evaluation of policy effectiveness 148. There is a mandate and timeline for revisiting A and B above and capturing “lessons learned” about adaptation incentives and barriers.</p> <p>Capacity</p> <p>149. Resources have been provided for policy development and deployment 150. Coordination body has appropriate membership and skill sets</p> <p>Enforcement</p> <p>151. Decisions made in processes A and B can be enforced by officials and members of the public</p>
	<p>H. Implementation: Are selected policies implemented on the ground?</p>	<p>152. New policies are rolled out at relevant level(s). 153. Projects/programs are carried out in accordance with A, B, and C above. 154. An enforcement mechanism exists to assure implementation 155. Sufficient budget is provided in support of implementation.</p>

Section II: Priority Area Functions

		Alignment Function 3. Information	
		Functions	Elements to Look For
ALIGNMENT FUNCTIONS	Gathering	<p>Output: Does the country have the necessary data for decisions for adaptation in the priority area?</p>	<p>Comprehensiveness</p> <p>156. Climate observation/monitoring systems are regularly maintained and updated with data relevant to the priority area.</p> <p>157. Demographic information systems relevant to climate change are regularly maintained and updated as is relevant to the priority area, including forecasts where possible.</p> <p>158. Environmental monitoring/observation systems are regularly maintained and updated as is relevant to the priority area, including forecasts where possible.</p> <p>Transparency and Participation</p> <p>159. Methods for data gathering are made transparent and publicly available.</p> <p>160. Data is publicly available in raw form.</p> <p>161. Priorities in developing and improving data gathering are set through a process of broad stakeholder consultation.</p>
		<p>Institution: Are appropriate systems for data gathering established within the priority area?</p>	<p>Accountability</p> <p>162. An institution(s) has a mandate to produce climate-adaptation relevant information.</p> <p>163. The institution(s) undergoes a regular, public process of review and revision of its data gathering methods.</p> <p>Capacity</p> <p>164. Sufficient budget is provided for ongoing information analysis. Staff has appropriate skills and knowledge.</p> <p>165. There is a system for capturing “lessons learned” on information analysis.</p> <p>Enforcement</p> <p>166. Officials and members of the public can ensure that the relevant institutions are able to carry out its mandate and maintain scientific integrity.</p>
	Analysis	<p>Output: Is analysis for adaptation decisions within the priority area carried out?</p>	<p>Comprehensiveness</p> <p>167. There a process for updating key definitions, especially those with critical legal and social ramifications.</p> <p>168. Consolidation and analysis of historical climate information</p> <p>169. Development of climate scenarios, including uncertainty estimates</p> <p>Transparency and Participation</p> <p>170. Methods for data analysis are made transparent and publicly available.</p> <p>171. Analysis is comprehensible and communicated through appropriate channels to relevant stakeholders.</p> <p>172. Priorities for analysis are set through a process of broad stakeholder consultation.</p>

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	<p>Institution: Are there appropriate systems for information analysis?</p>	<p>Accountability 173.An institution (or institutions) has a mandate to disseminate climate-adaptation relevant information to key stake holder groups. 174.The institution(s) undergoes a regular, public process of review and revision of its data gathering methods.</p> <p>Capacity 175.Sufficient budget is provided for ongoing information analysis. Staff have relevant skills and knowledge for analysis. 176.There is a system for capturing “lessons learned” on information dissemination.</p> <p>Enforcement 177.Officials and members of the public can ensure that the relevant institutions are able to carry out its mandate and maintain scientific integrity</p>
	<p>Output: Has a national platform (or network) for public information sharing on adaptation been identified (or created)?</p>	<p>Comprehensiveness 178.There is a national platform (or platforms) which address the information-sharing needs of the broad range of stakeholders.</p> <p>Transparency and Participation 179.National platform is well-publicized. 180.National platform includes members of relevant stakeholder groups, especially representatives of the most vulnerable populations.</p>
<p>Dissemination</p>	<p>Institution: Has a platform (or network) for public information sharing on adaptation within the priority area been identified (or created)?</p>	<p>Accountability 181.An institution (or institutions) has a mandate to disseminate information broadly. 182.There is a system for monitoring and evaluation of information dissemination, as well as revision of dissemination strategies.</p> <p>Capacity 183.Sufficient budget is provided for ongoing information dissemination. Staff has relevant skills and knowledge. 184.There is a system for capturing “lessons learned” on information dissemination.</p> <p>Enforcement 185.There is a process of review to ensure that key information is shared between relevant officers within government. 186.There is an efficient and fair means for individuals and organizations to demand climate-relevant information.</p>

Section II: Priority Area Functions

	Implementation: Is relevant information reaching key stakeholders who need it?	187. Relevant information is reaching key stakeholders ⁵ .
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⁵ Representatives of key government agencies say they have the information they need; Representatives of lower levels of government say they have the information they need; Key information is publicly available via a variety of channels; Representatives of the public (including vulnerable populations) report that they have access to this information; Key stakeholders are using information in decision-making and project implementation.

ARIA Stages 1 and 2

