iisd
International Institute for Sustainable Development

Institut international du développement durable

ADAPTOOL GUIDEBOOK

ADAPTool

V. 2.0 FOR EXISTING POLICIES

Stephen Tyler, Kari Hansen Tyler, Dimple Roy and Darren Swanson

CONTENTS

1. INTRODUCTION TO ADAPTool V. 2.0 AND THIS GUIDEBOOK

The Adaptive Design and Policy Assessment Tool (ADAPTool) is an Excel spreadsheet developed by the International Institute for Sustainable Development as a structured guide through an assessment process that compares existing policies and programs to the characteristics of adaptive policies set out through previous research.[1]

Why "adaptive policies"? The context for public policy is changing rapidly and policy-makers are often concerned about how their policies and programs may respond to future conditions, both anticipated and unanticipated. Our research on a broad range of policies in several sectors has pointed to a set of characteristics that will strengthen the adaptability of public policies to shocks, stresses and changing conditions. The ADAPTool helps users to assess policy or program adaptability in relation to these characteristics. Planned adaptability helps policies cope with foreseeable or anticipated shocks while as autonomous adaptability helps policies cope with unanticipated shocks.

The ADAPTool assesses policies or programs in relation to a defined stressor or external change. It produces two kinds of assessments: 1) it gauges the ability of existing policies or programs to support adaptation measures undertaken in response to the specified stressor by the policy target groups; 2) it assesses the general adaptability of the policies or programs themselves, which is to say, whether they likely to respond well under the influence of the defined changes as well as under unforeseeable changes in the future?

In addition to the online ADAPTool intended for review of existing policies, we have also developed a Microsoft Excel-based version of the ADAPTool for policy-makers who are in the process of designing a new policy, program, strategy or initiative.[2] This version of the tool focuses on helping policy analysts think through the various issues—including key stressors that might affect relevant sectors, stakeholders and the policy performance—and help create a policy that is robust against future uncertainty.

Both versions of the tool can help policies deal better with stresses *including, but not limited to climate change*, such as volatile market prices, demographic pressures or any other driver of change that can potentially have a big impact on policy performance.

---

[1] That research is summarized in D. Swanson and S. Bhadwal (Eds) (2009). *Creating adaptive policies: A guide for policy-making in an uncertain world.* (Ottawa: Sage Publications and New Delhi: IDRC.). Retrieved from http://www.iisd.org/publications/pub.aspx?id=1180. All references to *Creating Adaptive Policies* are derived from this source.

[2] For the purposes of this document, there is no distinction made between *policy, program, strategy* and *initiative;* all will all be referred to by the overarching term "policy."

2. CHARACTERISTICS OF ADAPTIVE POLICIES

The seven characteristics of adaptive policies are: 1) integrated and forward-looking analysis, 2) multistakeholder deliberation, 3) automatic policy adjustment, 4) self-organization and social networking, 5) decentralization of decision-making, 6) promoting variation and 7) formal policy review and continuous learning.

These adaptive policy characteristics are summarized below. They are described in more detail, with case studies, in *Creating Adaptive Policies.*

Integrated and Forward-Looking Analysis

Integrated and forward-looking analysis can identify key factors that affect policy performance and scenarios for how these factors might evolve in the future, so that policies and programs can be made robust to a range of anticipated conditions. These tools can also be used to develop indicators that will trigger adjustments when needed. Modelling tools of varying sophistication can be used to support this kind of analysis, which is often integrated through scenario planning.

Multistakeholder Deliberation

Multistakeholder deliberation is a collective and collaborative effort to examine an issue from different points of view as part of a decision-making process. Deliberative processes strengthen policy and program design by building recognition of common values, shared commitment and emerging issues, and by providing a comprehensive understanding of causal relationships. The key aspects of this process are that it involves participants, including the public, in sharing multiple perspectives in an attempt to reach consensus on a relevant decision. This goes beyond stakeholder consultation.

Automatic Policy Adjustment

Automatic adjustment mechanisms can speed up the response to conditions that are more or less anticipated. They can be used in complicated policy environments by separating the various issues into units (both qualitative and quantitative) in which the understanding of the system is high, allowing for fine-tuning and making adjustments that help reduce risks and maintain performance. Automatic adjustments can be both fully and semi-automatic.

Enabling Self-Organization and Social Networking

The intent of this characteristic is to ensure that policies do not undermine existing social capital, but instead create forums that enable social networking, facilitate the sharing of good practices and remove barriers to local self-organization. Local responses, self-organization and shared learning all strengthen the ability of stakeholders to respond to unanticipated events through innovation.

These practices take advantage of the capacity of complex adaptive systems to generate solutions beyond external input or formally organized interventions. The ability of individuals and groups to self-organize in response to stresses, crises or unexpected problems is well documented in social and ecological literature, and a key aspect of healthy adaptation. For policy-makers and program managers, the idea is to foster self-organized responses to unexpected conditions by enabling and supporting interaction, learning and networking, without trying to control or dictate outcomes. This includes facilitating sharing and copying of best practices, providing resources to reduce barriers to self-organization and creating spaces for adaptive collaboration.

Decentralization of Decision Making

In governance terms, the principle of "subsidiarity" means decentralizing decision making to the lowest effective and accountable unit of governance. The adaptive advantages are better opportunities for feedback and information sharing to ensure that decision-makers are aware of unexpected problems and effects of proposed interventions, as well as the nature of different interests. For policies directly concerning natural resources and ecosystems, field staff typically notice significant change earlier and can mobilize affected local interests to address these changes more simply. Because local conditions vary widely, decentralization provides a way to implement policies and programs more flexibly, to ensure effectiveness and adaptation to change. The potential for decentralization in any particular policy or program area will depend on the scale of intervention needed, the extent of local knowledge and capacity, and the structure of governance mechanisms for accountability and coordination.

Promoting Variation

Given the complexity of most policy settings, implementing a variety of policies to address the same issue increases the likelihood of achieving desired outcomes. Another common risk-management approach is developing diverse responses, which make it easier to perform efficiently in the face of unanticipated conditions. Variation may be actively designed, to provide a range of alternative options to meet the diverse needs of different stakeholders. This process can be facilitated by:

• Using a mix of policy instruments

• Exploring synergies with other policies

• Providing opportunities for risk spreading

Another approach is to use policy tools to facilitate variation by removing barriers to alternative solutions and providing information to support the exploring of options.

Formal Policy Review and Continuous Learning

Even when the policy or program is performing well, regular review and well-designed pilots administered throughout the life of the policy/program to test assumptions related to performance can help address emerging issues and trigger value-added policy adjustments. Formal review is different than automatic adjustment, where triggers and responses may be determined in advance. Formal review is a mechanism for identifying and responding to unanticipated circumstances and emerging issues. This assessment process can be very useful in detecting emerging issues that can affect the policy's performance. A formal review mechanism can include triggers for the review (such as time intervals or other performance triggers), definition of the nature of the review and a learning process about who needs to be involved in the review, who will take action on the results and what actions are to be considered.

Together, these seven characteristics of adaptive policies are relevant in the planning and design of policies and programs, as well as in their implementation and evaluation. The ADAPTool is intended to encourage assessment and discussion of these characteristics in various phases of the policy cycle.

This guidebook is intended to help users through the application of the ADAPTool. For details about the concepts of adaptive policies, examples of their application and further information about supporting background research, the user should refer to *Creating Adaptive Policies* (see footnote 1), which is available in full-text online at no cost. Users are strongly encouraged to review this short reference volume prior to undertaking an ADAPTool analysis in order to understand key terminology and concepts. This will avoid confusion and simplify the analysis.

Users may also wish to review this example of how ADAPTool was applied in assessing the adaptability of agriculture sector programs to climate change in the Province of Manitoba.

3. ADAPTOOL ROADMAP

The assessment questions in the ADAPTool follow a logical sequence, as outlined in the box below. This series of questions is arranged in four different Excel-based spreadsheets, described in detail in the following steps. Box 1 summarizes the contents of each sheet.

Box 1: ADAPTool questions and worksheet structure

Scope of Analysis Worksheet:
1) What is the geographic scope of the analysis (e.g., watershed, municipality, region, province)?
2) What is the stressor of concern (e.g., climate change impacts such as drought and excess moisture)?
3) What are the policies/programs to be assessed?

Adaptation Analysis Worksheets (for planned adaptability):
4) What are the main sectors relevant to the policy(ies)?
5) In what ways is the sector vulnerable to the stressor?
6) What adaptation actions might be necessary to address the vulnerabilities?
7) Are the identified adaptation actions supported by policies/programs?

Adaptive Capacity Analysis Worksheet (for both planned and autonomous adaptability):
8) Is the policy or program itself vulnerable to the stressor identified?
9) Were foresight methods used to help design the policy?
10) Does the policy enhance the capacity of actors within each sector to adapt?[3]
11) Was multistakeholder deliberation used in the *scoping and design* of the policy/program?
12) Is multi-stakeholder deliberation used in the i*mplementation* of the policy/program?
13) Does the policy/program enable self-organization and social networking among affected stakeholders?
14) Is decision-making for policy implementation adequately decentralized?
15) Is there adequate variety in the suite of policies and programs directed at the policy issues (e.g., economic, regulatory, expenditure, institutional)?
16) Does the policy have a regular formal review process in place that can detect emerging issues?

Synthesis Worksheet
An aggregate ranking of *planned adaptability* and *autonomous adaptability* is provided for the overall suite of policies/programs, as well as for each individual policy/program.

---

[3] Smit, B. & Pilifosova, O. (2001). Adaptation to climate change in the context of sustainable development and equity. In J.J. McCarthy and O.F. Canziani (eds.), *Climate change 2001: Impacts, adaptation and vulnerability.* Contribution of Working Group III to the 3rd Assessment Report of the Intergovernmental Panel on Climate Change, (pp. 877–912). Cambridge: Cambridge University Press.

4. PREPARATION

a. Getting Started

Preparing to use the ADAPTool means that users should consider the purpose of their assessment at the outset, as well as how results will be used, including the key audiences to which they will be disseminated (often internal government policy audiences).

Using the ADAPTool for analysis is a team effort. The tool is designed to use both analytic and deliberative approaches. The process relies on a team of people with complementary skills. The team needs to be able to work together to identify key stressors, vulnerabilities and adaptation actions; to foresee what challenges the policy or program will face in the future; and to predict how these challenges can be adequately dealt with. Although using the tool is straightforward, the concepts that inform it are complex and the information needed to provide good results is extensive. The perspectives of multiple team members, especially in scoping, interpretation and analysis of data, will strengthen the results. The team selected to lead the analysis should have expertise in or access to:

• Knowledge of the identified stressor

• Familiarity with adaptive policies and adaptive policy-making (i.e., familiarity with *Creating Adaptive Policies,* and/or participation in formal training on the use of the ADAPTool)

• General knowledge of the policies and programs being assessed

• Interview and communications skills

b. Geographic Scope

The first several steps of the process define the scope of the analysis. Some of these issues may be determined in the decision to undertake the ADAPTool assessment in the first place. The scope of the analysis may depend on the jurisdiction applying the tool. The tool can be applied at a wide range of scales, from a community to municipal, regional, provincial or national government. At this point, it is useful to be as specific as possible (e.g., selecting a province or watershed as opposed to a country where the program or policy might be implemented or challenged in a variety of ways).

c. Description of Stressor

The first task of the team, if it hasn't already been determined, is to define the stressor. The description of the stressor should be developed with the particular context of the analysis in mind. For example, if the identified stressor is climate change, the team should consider what climate change stressors (e.g., temperature, sea level rise) are the biggest concern in the relevant geographical area, and what climate change impacts will affect the suite of policies selected. Be as specific as possible in defining the stressor, as this will simplify subsequent analysis. This tool can be used for any stressor (e.g., economic stressors, demographic stressors, etc.).

d. Policy Selection

ADAPTool is intended for use in assessing policies, strategies, programs or legislation. We use the term "policy" in this guidebook to refer to any or all of these categories. When considering policies for selection, the team should keep in mind that the purpose of the ADAPTool analysis is to assess the adaptability of policies, NOT to do a broad policy evaluation. Policies should be selected primarily to open up conversation and learning in the context of adaptability. Policies must be defined specifically. The subject of analysis must be very clear so that it can be accurately characterized for analysis.

In policy selection, give special consideration to policies that are:

• Highly relevant to the stressor

• Intended to be adaptable to changing future conditions

• Likely to be reviewed or modified soon, where the adaptability assessment can feed into other evaluation approaches OR still in the design stage

• Within the jurisdiction of the agency leading the assessment, if the intent is to influence policy design decisions

e. Time Management

The time required to do the whole analysis will depend on the pre-existing knowledge about the impact of stressors, the number of policies selected and the availability of staff to participate in the study. In anticipating how much time the process will take, keep in mind that the process is designed for iterative engagement. The value of the assessment lies in both the analysis *and* the accompanying deliberation that leads to shared ownership of results.

The process can be managed in different ways depending on the purpose. If the focus is solely on exploratory analysis of a small number of policies and/or there is limited interest, there may be less focus on iterative engagement with information holders. However, if the intent is to build broad understanding among program managers of the impacts of a particular stressor and begin to develop strategies for policy responses, then iterative engagement is likely to take more time than the analysis itself. In either case, the analysis needs to be informed by policy experts with intimate knowledge of the policy design, intent and implementation. When the analysis is intended to build capacity and understanding amongst program managers, the team should allow flexibility with time management to have sufficient time for trainings, group meetings and consultation, and to build relationships with the various departments and program leads that will need be involved. Keep in mind also that the process of achieving consensus on the scoping can take as much time as data collection and analysis if many complex policies are under consideration.

Once scoping is completed, the collection of information needed to undertake analysis of each policy depends on the approach. If a single analyst is responsible for undertaking the work, each policy will probably take two days for research and scoring plus time for review and interviews. On the other hand, if data collection can be undertaken through interviews with managers by an analyst who is familiar with the ADAPTool, analysis and scoring of each policy can take as little as 3–4 hours.

f. Strategy for Inviting Participation

The analysis will likely require participation from several departments or work groups. Building relationships with managers and potential interviewees right from the beginning is important for the process to move forward smoothly.

The leadership team should clearly identify:

• Value added of this exercise for participants

• A strategy for sharing and using results

• How this assessment fits with other ongoing management processes

• Likely sensitivities

At the outset, the project leadership should identify the benefits of the analysis for staff members engaged in this exercise. During the scoping, the leadership team should develop a strategy for sharing results. This clarity of purpose will facilitate clearer engagement with the diverse participants in the process. Before freeing up staff time or participating in the data collection, people will likely want to understand both the value for them and what will be done with the analysis results.

The team will try to identify the most knowledgeable informant for any particular program or policy. They should keep in mind any sensitivities that these people may have about their program in the broader organizational context. For example, if there have been recent program cuts or fiscal restraint policies, managers may be defensive or suspicious of this study as a threat to their programs. Consider the best approaches to bring people on board by anticipating such concerns and highlighting opportunities in presenting the study. Strengthening the policy can be a motivator in such a climate of program cuts as well.

5. STEPS IN APPLYING THE TOOL: AN OVERVIEW

The tool consists of four worksheets. The responses for the first worksheet and most of the second worksheet are compiled through an online form. The last question of the second worksheet and the entire third worksheet are filled out as part of the data collection process, either through interviews or research by the analyst.

a. Online Components

Questions 1–6 of the Scope of Evaluation Worksheet and the Adaptation Analysis Worksheet are entered into the online form. This form (http://www.iisd.org/foresightgroup/adapt.aspx) can be more easily completed if the answers are prepared with the leadership team in consultation with relevant experts before entering them into the website. The website also provides a downloadable Excel spreadsheet that can be filled out with the adaptation data (Q4 sectors, Q5 vulnerability and Q6 adaptation actions) and then uploaded as a .csv file to populate the analysis spreadsheet.

b. Analysis Spreadsheet and Interviews

Once the online form is completed, an analysis spreadsheet is generated automatically from the scoping information. The spreadsheet generated by the tool is used to collect data, typically from interviews with key informants who work closely to implement the policies to be assessed. Policy staff may also complete the tool questions themselves and provide responses to the coordinating team if they have had training in using the ADAPTool.

c. Synthesis: Conversation & Revision

After the data has been collected and the analysis of all programs has been generated by the spreadsheet, it is helpful to review the scoring results with all participants to confirm that they make sense, and that they feel the coding has been consistent. The analysis may change after discussion.

d. Dissemination

Once there is enough agreement among participants on the results and the story that they communicate, it is time to share the results more widely, and consistent with the strategy established at the beginning of the process.

6. USING THE ADAPTOOL

a. Scoping

The scoping exercise is typically completed through interaction among the assessment team or with key advisors. While geographic scope and stressors can be defined fairly easily, the identification of sensible user groups or sectors relevant to the policies being assessed may require some consultation. Users should review the questions in the adaptation analysis sheet (Questions 4–6; sectors, vulnerabilities and actions) in order to identify the information needed, but prepare their responses off-line, as this process may take some time. This information can be uploaded as a data file by following the instructions on the ADAPTool website.

The definition of specific target sectors is important in order to distinguish vulnerability to the stressor and adaptation actions that are relevant to the user group targeted by policies being assessed. For example, in the case of the agriculture sector, policies are targeted at farm producers of various kinds. Depending on the priorities of the analysis, policies selected for assessment may focus on income support, insurance, extension, on-farm environmental management or other issues. If the stressors selected are increased frequency of drought and of excess moisture, this will affect different producers in different ways. In order to capture these differences, the relevant producer sectors in the geographic target area should be clearly distinguished. These could include, depending on selected the geographic scope, grain and oilseed cultivation, dairy farming, cattle, swine production, vegetable farming or fruit orchard operations. These different categories become the sectors for purposes of the analysis. If the assessment is focusing on transportation policies instead of agriculture, the sectors might include highway design, highway construction, highway maintenance, traffic safety or even sectors being primarily serviced by the selected geography's transportation network (e.g., agriculture, mining, municipalities, etc.). The selection of relevant sectors is at the discretion of the analyst but should be clearly defined based on the intent of the analysis.

Once the sectors are clear, the vulnerability analysis can be undertaken. This analysis compares the direct vulnerability of the sectors to the stressors identified for the assessment. If there are multiple sectors and stressors, the team may identify dozens of potential vulnerabilities. This process is greatly aided by previous vulnerability assessments that may have been done in other studies. If no prior assessments have been done, a reasonable alternative would be to gather a small number of experienced staff who are familiar with the stressors across all sectors for a one-day workshop to identify vulnerabilities together. This can be combined with the next step: identifying likely adaptation actions to respond to each of the vulnerabilities.

This scoping process will take the team through the first six questions of the ADAPTool. These steps will require broad knowledge of the various sectors/user groups affected by the policies to be assessed.

b. Generating an ADAPTool Spreadsheet

Once the scoping has been completed, the team is ready to enter this scoping data into the online form and generate a worksheet for policy assessment. If there are numerous sectors or policies to be entered, along with many vulnerabilities and adaptation actions, data entry may take some time. Note that it is possible to save intermediate versions of the data entry sheet, but *you must note the temporary URL of your data entry sheet in order to retrieve it later to complete the data entry*. The sector, vulnerability and action data can also be uploaded from a .csv data file by following the instructions on the site.

Once all the data for the first six questions has been entered into the online form, the website will generate a formatted worksheet for the remaining analysis.

If there are many policies or programs to assess, this sheet will be large and complex. For the subsequent data collection and policy analysis stage, if there are several different people collecting data or conducting interviews, it may be simpler to have the analysts work from separate simplified sheets for each policy instead of from the unified analysis spreadsheet. This can be done by generating a temporary interview sheet from the online form by entering only a single proxy policy placeholder, instead of the actual list of all policies being assessed. The online form will then generate an analysis spreadsheet with only one policy. Each analyst can use a separate sheet to collect data for each policy. Eventually, a complete spreadsheet with all policies will also need to be generated and used to compile results from these separate data forms for analysis.

If there are many policies to be analyzed and several different people doing the interviews, it will be important to develop a plan for version control and collation of separate data sheets into the final spreadsheet for comparative analysis.

c. Data Collection

Scoring can be done by program staff familiar with the details of the policy or through interviews with program staff by members of the analysis team familiar with the intent and process of the ADAPTool. Data collection should be seen as a learning process. Those who are already familiar with the policies they administer are offered a different perspective through the lens of adaptive policies. While everybody likes to feel that their program scored "well," there is no

need for all programs to be adaptable. A low adaptability score may be perfectly reasonable for a narrowly targeted program of limited duration. And a high score may increase expectations for performance under stress. Therefore, respondents should be discouraged from strategic responses intended to make their program "look better." Data collection will involve iteration and discussion. This will require staff time investment, but is also a key benefit and a source of broader organizational learning.

Prior to undertaking the scoring exercise, all those involved in providing data should review the questions and ensure that key definitions and interpretation of terms are consistent. The following section provides definitions intended by the tool's designers.

Scoring in Question 7 includes five options. While scores of 0 – 2 are self-explanatory, other scores may include "-1" in cases where the policy's actions actually inhibit or prevent the adaptation measure. If the policy clearly has nothing to do with this adaptation action (e.g., it does not apply at all to this sector or user group), it

> **7. Are the adaptation actions supported by the policy? (score 2 if action directly supported by program; 1 if indirectly supported; 0 if not supported; -1 if potentially hinders ability to implement the adaptation action; and NA if the policy is not relevant to the sector)**

should be scored with "n/a." For example, in the agriculture sector, a program for grazing range management on Crown land will have no connection to adaptation measures that improve the efficiency of irrigation in orchards, so the "n/a" score would be appropriate here. On the other hand, a farm extension or agrology program that includes advice to horticulturalists and orchardists on pest management, varietal selection and marketing, but not irrigation, would score 0. The program is relevant to the sector, but provides no support to the specific adaptation measure.

In preparation for the analysis, the leadership team should discuss the use of "n/a" and "0" in the coding, and then later review results from different respondents to ensure consistency. This will make a difference in scoring for Worksheet #2 Adaptation Analysis. Adaptation measures scoring "n/a" are not counted in the total number of adaptation measures affected by that policy (at the bottom of Worksheet #2), while 0 scores are counted, leading to a higher number of adaptation actions and therefore a lower percentage of indirect/direct support. The difference is one of judgment and will not have major effect on the analysis, but using the "n/a" scores will reassure respondents that their programs will not be rated lower if they are irrelevant to many vulnerabilities.

Total number of adaptation actions	137	Total number of adaptation actions	81	Total number of adaptation actions	154
Percent of actions indirectly supported	47%	Percent of actions indirectly supported	68%	Percent of actions indirectly supported	92%
Percent of actions directly supported	4%	Percent of actions directly supported	11%	Percent of actions directly supported	5%
Total score	1	Total score	1	Total score	1

Question 8 asks whether the program itself is vulnerable to the stressor. For example, if the stressor is increased flooding due to extreme precipitation caused by climate change, programs that provide insurance, compensation or emergency response to flooding may be vulnerable to increased demand or fiscal stress.

Question 9 introduces the concept of foresight methods. It asks about the use of analytical tools to identify key policy parameters and their potential evolution over time. Examples of tools that could be considered are: scenario planning; environmental scanning; risk analysis; strength, weakness, opportunity, threat (SWOT) analysis; and multivariate modelling.

Question 10 identifies various components of adaptive capacity, as defined in the literature, and asks whether the policy provides direct or indirect support to agents that would increase their adaptive capacity in any of these dimensions.

Questions 11 and 12 ask about multi-perspective deliberation in policy design. This means that stakeholders with a range of interests are involved in public deliberations (such as meetings or advisory groups) in which they are asked to consider different options, discuss or debate advantages and disadvantages together, and suggest solutions. This process goes beyond simply consultation or requests for feedback, because it involves public deliberation and consensus building, actions that reveal new information and values for decision making.

Question 13 measures how program resources support local self-organization, shared learning and networking. A high score means the program goes beyond "encouraging" this activity, to actually providing resources for it.

Question 14 about decentralization refers not to the existence of regional offices, but to the scope for implementation decisions to be made at a decentralized level, to tweak implementation measures in response to local conditions. Note that for decentralization to be effective, adequate resources and accountability need to be devolved to the right level.

Question 15 compares the type of policy approach being taken across all the policies in the suite. Four different categories of policies are recognized:

- Regulatory policies that specify or constrain actions under certain conditions (e.g., land-use regulations)
- Economic support policies that use financial means to reduce risk, compensate for specific losses, or structure markets and incentives (e.g., crop insurance)
- Institutional policies that create rules, processes or information to support economic activity (e.g., water licensing procedures for surface water extraction)
- Expenditure policies that include programming for infrastructure, extension, administration or oversight for sectoral activities (e.g., marketing or business development programs)

A high score means that all 4 policy types are represented in the suite.

Question 16 assesses the policy against a formalized review process with a pre-determined trigger, such as a specific timeline (e.g., policy to be reviewed every x years) or against a specific indicator (e.g., policy to be assessed when the number of farms under the program exceeds 250). A formal review process should be undertaken with analytical and deliberative processes to identify upcoming issues and ensure that the policy design and implementation are still meeting the purposes and objectives of the policy as effectively as possible given current knowledge, resources and capacity.

d. Coding Considerations

When the results are first collated, they should be reviewed for coding and scoring consistency, then revised through discussion if necessary. Users are reminded that the scoring system is imprecise and a function of judgment more than measurement. Any "rules of thumb" for what constitutes a 1 or 2 score in any given question would need to be developed by the analysts. The scoring is intended to be relative. If there are difficulties distinguishing between a 1 and 2 score in a given question, it can be compared with other question responses.

To be respectful of interviewees' time, the interviewer may want to prepare by compiling some answers in advance, based on knowledge of the policy, and confirm these with interviewees. This is especially important with Question 7 about adaptation actions, which requires responding to a long list of questions, many of which may be of limited relevance to some policies.

Experience from previous analysis suggests a couple of issues to be aware of at the outset:

• Question 7 could take half the time of the data collection process, especially if there are many vulnerabilities identified. Stating this upfront in an interview will mean that respondents are less likely to be intimidated by the rest of the worksheet.

• Be attentive to the scoring of Question 8 Vulnerability to Stressor—this can be counterintuitive after the Question 7 series. Question 8 asks if the policy is vulnerable to the stressor, and is scored 2 if no and 0 if yes. The series of Question 7 responses are scored 2 if yes, 0 if no. That difference can cause coding errors.

8. Is the policy itself vulnerable to the stressor?

Policies and Programs	Is the policy itself vulnerable to the stressor? (score 2 if no; 1 if marginally; and 0 if yes)	
Sustainable Supplies	Yes- as water supply is expected to vary significantly with climate-related stresses	0
Safe Drinking Water	Our climate change scenario includes increased floods, droughts and severe storms. Due to a close relationship between floods and nutrient loads, this goals might itself be vulnerable to climate stresses.	0
Protection of Water Resources	Water quality and ecosystem functions are related to increased floods, droughts and severe storms.	0
Safe Dams	The safety, need and effectiveness of dams will likely be affected by more floods, droughts and more severe storms projected in a future with changing climate.	0
Flood and Drought Damage Reduction	This is clearly vulnerable to increasing floods and droughts	0
Adequate Data, Information and Knowledge	Not vulnerable to stressor	2
Effective Governance and Engagement	Not vulnerable to stressor	2

7. SYNTHESIS

The ADAPTool synthesis sheet essentially compiles the analyses and scoring from the other ADAPTool worksheets and provides quantitative and qualitative answers to the following questions:

1) Are the individual policies and the suite of policies able to support adaptation measures undertaken in response to the specified stressor by the policy target groups?

2) Are the individual policy and suite of policies adaptable themselves? Are they likely to respond well under the influence of the defined changes as well as under unforeseeable changes in the future?

Specific recommendations based on the analysis are noted in this sheet and can be used to improve policy performance at the next available opportunity offered by a policy review. These reported results are often helpful as a means of articulating the need for policy review and change to senior decision makers.

Programme Evaluation Summary

| Adaptive Policy Questions	Overall Synthesis			Timber Quota Allocation Policy	
	Flag	Recommendations		Flag	Recommendation
Programme's Ability to Support Anticipated Adaptation Needs (Planned Adaptability, score out of 10)	6			7	
Are anticipated adaptation actions supported by the policies?	1	36% of identified adaptation actions are potentially directly supported by at least one of the three policies and 51% are indirectly supported by at least one of the policies. 13 adaptation actions were identiified as potentially being hindered by at least one of the policies. Although these policies/programs were designed previous to climate change adaptation in mind, the majority of the adaptive actions are supported either directly or indirectly by at least one of the policies. Various elements of the forestry sector (productive, research in migration trials, and re-planning of cycles) support adequately adaptive action. Improvements in data collection can better support climate change modeling for these actions in the future. Also, flexibility in change in stands to adddress climate change adaption will better support adaptive actions under the FRP. The policies that were identified as potentially hindering 13 of the actions should be reviewed to consider any		1.3	Yes. However the policy was not previously designed with Climate change adaptation in mind. The next revision should include more proactive direction in the Timber Salvage Section. An example could be that Quota holders may be directed into undamaged but threatened (e.g. insect/disease attack, drought, wind throw) timber areas for forest management purposes. Most of the adaptation actions were not applicable to the policy, thus affecting its overall scoring. Nonetheless, those actions that were applicable with the policy were either directly or indirectly supported.
Is the policy itself vulnerable to the stressor?	1	A mix batch of responses was acquired among the three policies/programs. The most narrowly focused program on production (timber quota) has robust applications to adapt production cycles as needed. While on the other end, forest renewal is completely dependent on environmental conditions.		2	No. Unless the forest within an entire Forest Management Section is disturbed (Fire). This, however, is not predicted to occur

The synthesis sheet also comprises a visual depiction of how the policies are performing on a scale of "planned adaptability," the ability to support anticipated adaptation actions, and "autonomous adaptability," the ability to support unanticipated adaptation needs. A vertical axis reflects a policy's relative support for anticipated adaptation actions, along with: the potential vulnerability of the policy itself to climate change; the ability of the policy to contribute to key determinants of

adaptive capacity (economic resources, access to technology, infrastructure needs, information and management skills, institutions and networks, and equitable access); and the degree to which the policy-makers consulted with stakeholders during its scoping and design phase.

A policy's relative position along the horizontal "autonomous adaptability" axis is a reflection of: the degree of stakeholders input during policy implementation; the ability to enable self-organization through the sharing of best management practices and lessons learned; policy degree of decentralization in its response to local adaptation needs; and whether or not the policy has a formal review process to trigger key policy improvements and detect emerging issues.

Conversations about adaptation are an important benefit of doing this analysis. Regardless of how the data is collected, it will be important to plan a wrap-up meeting and conversation to review the results and confirm that they are sensible. As part of a final meeting with participants or in developing a synthesis, the leadership team will want to reflect on what they learned as a result of this process. Potential elements of the analysis include:

Summary Adaptive Policy Analysis
(Green = Contributing; Yellow = Marginal Contribution; Red=Not Contributing)

a. Adaptability strengths of the portfolio of policies.

b. Identify where adaptability is low, explore why this might be the case, and whether it is important or not. Some programs do not need to be adaptable to all stressors.

c. Distribution of adaptability scores among programs.

d. Adaptability to known versus unanticipated stressors.

e. Results that might be unexpected.

f. In any review meetings and dissemination, remind the audience that this is not a program evaluation but an assessment of program adaptability.
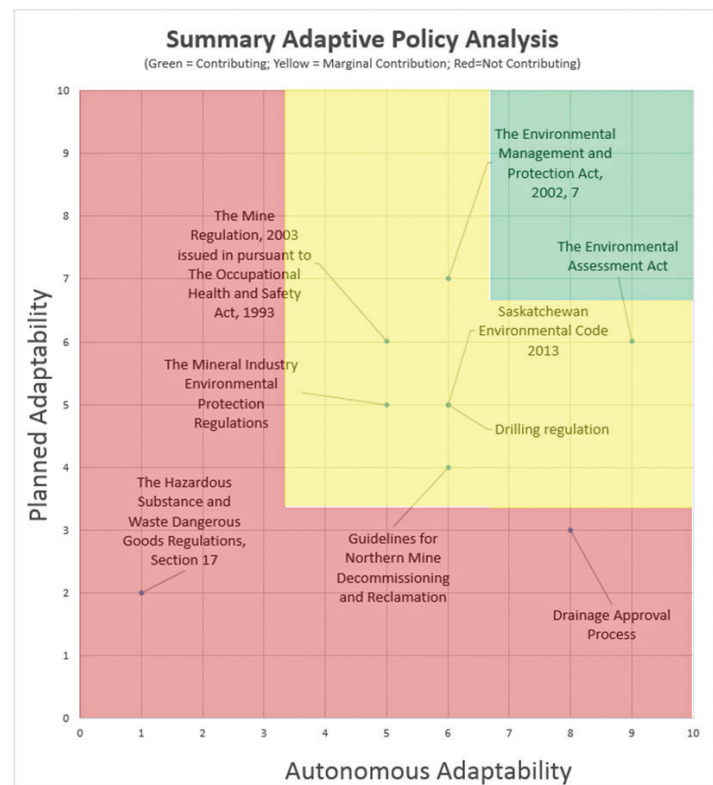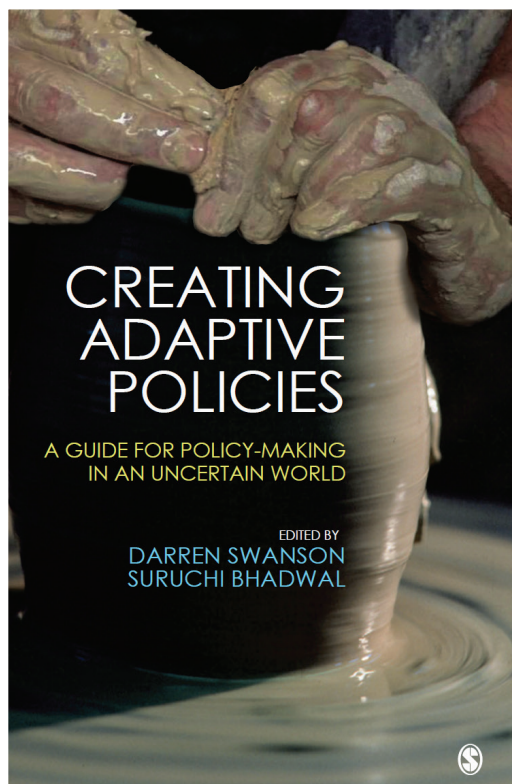
8. DISSEMINATION AND APPLICATIONS

a. Emphasize in any mode of dissemination that this analysis is a contribution to a conversation about adaptive capacity that builds on existing understanding and recognizes that some future stressors will be unanticipated. What did the participants learn about adaptive policies from this process?

b. Use this as an opportunity to showcase the strengths of your policies and achievements in designing adaptive policies.

c. Learn from the experience and identify gaps in adaptability to the designated stressor. Share some reflections about whether the gaps are significant and when might they be problematic.

d. The use of the ADAPTool has provided a valuable opportunity for collaborative engagement in cases where it has been applied. In your organization, this could be a starting point for conversation about strengths and opportunities and lay the foundation for future collaboration in support of adaptation.

ACKNOWLEDGEMENTS

For More Information

For more information contact Dimple Roy, director, Natural and Social Capital Program, IISD (droy@iisd.ca)

NOTES