

TAMD Climate change indicator - methodological note

Short title	INDICATOR 6. PLANNING UNDER UNCERTAINTY <i>Institutional capacity for decision-making under climatic uncertainty</i>																				
Type or Indicator	<i>Scorecard (output or outcome depending on how applied)</i>																				
Technical definition/ Methodological summary	<p>This indicator is designed to assess the extent to which climate change planning explicitly addresses uncertainty related to future changes in climate.</p> <p>The indicator can be used to assess the performance of an individual capacity building programme, through evaluation of the target system (e.g. ministry, sector, institution) at the beginning, during, and at the end of the programme.</p> <p>The indicator may also be used to assess the treatment of uncertainty in development planning in systems targeted by multiple programmes, based on regular completion of the scorecard to track changes over time.</p> <p>Where the aim is to evaluate the effectiveness of capacity building interventions to improve institutional knowledge and capacity to address climate change, assessments will need to be supported by evidence that any improvements are attributable to the programme(s) in question.</p> <p>The indicator is most likely to represent an <u>outcome</u> indicator, as it examines the outcomes at the level of the target system resulting from the outputs of programmes.</p> <p>The indicator could also be used as <u>output</u> indicator, if it is adapted to capture the integration of measures to address uncertainty where these are represented explicitly by programme components (e.g. screening activities for risks under different sets of future climate conditions).</p> <p>The indicator takes the form of a scorecard based on five criteria relating to the extent to which methodologies for addressing uncertainty are employed in development planning, and for ensuring that planning can be updated with new information. These criteria are expressed as questions that ask to what extent the criteria have been met: not at all (“NO”), partially (“PARTIAL”), or to a large extent/completely (“YES”).</p> <p>An overall score is calculated, as the number of “PARTIAL” answers plus the number of “YES” answers, with each of the former scoring 1 and each of the latter scoring 2, giving a maximum score of 10.</p> <p>The indicator scorecard is set out in <u>the table below</u>.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: left;">INDICATOR 6. Planning under uncertainty</th> </tr> <tr> <th style="text-align: left;">CRITERIA/QUESTIONS</th> <th style="text-align: center;">NO</th> <th style="text-align: center;">PARTIAL</th> <th style="text-align: center;">YES</th> </tr> </thead> <tbody> <tr> <td>1. Does planning (and wider climate change dialogue) incorporate the use of “envelopes of uncertainty” defined in terms of plausible ranges of key climatic parameters over relevant timescales, informed by climate projections where feasible?</td> <td style="width: 25px;"></td> <td style="width: 25px;"></td> <td style="width: 25px;"></td> </tr> <tr> <td>2. Does planning make use of scenario planning exercises, preferably based on “envelopes of uncertainty”?</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3. Does planning explicitly address risks associated</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	INDICATOR 6. Planning under uncertainty				CRITERIA/QUESTIONS	NO	PARTIAL	YES	1. Does planning (and wider climate change dialogue) incorporate the use of “envelopes of uncertainty” defined in terms of plausible ranges of key climatic parameters over relevant timescales, informed by climate projections where feasible?				2. Does planning make use of scenario planning exercises, preferably based on “envelopes of uncertainty”?				3. Does planning explicitly address risks associated			
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	with “maladaptation”?			
	4. Is planning, design and decision-making guided by well-developed frameworks and methodologies that address uncertainty?			
	5. Do mechanisms exist for ensuring that planning guidance is updated with new information on climate change as it becomes available?			
	<i>SCORE (No. of “YES” answers x 2, plus no. of “PARTIAL” answers x 1)</i>			

Methodological points to note

1. The indicator is used to **assess systems targeted by one or more programmes**, and is an outcome indicator, which will be assessed at the beginning, during, and at the end of a programme (where the outcomes resulting from a single programme are to be assessed), or at regular intervals (e.g. annually) where the cumulative results of multiple programmes are to be assessed. Where the indicator is applied to a targeted system, improvements in scores will need to be complemented by supporting qualitative evidence in order to demonstrate attribution (e.g. narratives, testimonials, other evidence of causal relationships).
2. “Envelopes of uncertainty” [Question 1] are ranges of potential future conditions defined for relevant climate variables, e.g. in terms of maximum and minimum extremes in projected rainfall, temperature, sea-level rise, water availability, etc. Such envelopes may be defined based on climate model projections/outputs at the relevant spatial scales, or based on plausible ranges inferred from global or regional projections in combination with expert judgment.
3. Scenario planning [Question 2] will involve the use of envelopes of uncertainty, but represents a much broader set of activities, including the identification of thresholds (within these envelopes) beyond which the viability of existing systems or practices is in doubt, and the identification of sets of potential adaptation strategies and measures, e.g. in collaboration with key stakeholders.
4. Maladaptation [Question 3] occurs when development activities inadvertently increase vulnerability to climate change, ~~as a result of~~ in’ of patterns of development that ~~are not~~ ~~through~~ climatic conditions, increasing the risk of economic and wider societal disruption. Typically, maladaptation occurs when longer term climatic and environmental change and variability ~~are~~ ~~ignored~~ in development planning. This may result in development strategies being designed and implemented under implicit or explicit assumptions of climatic stationarity (e.g. assuming current climatic conditions will continue indefinitely), or that current levels of key resources such as water ~~are~~ the future when climate change resources. The OECD (2009: 49) defines maladaptation as “business-as-usual development which, by overlooking climate change impacts, inadvertently increases exposure and/or vulnerability to climate change. Maladaptation could also include actions undertaken to adapt to climate impacts that do not succeed in reducing vulnerability but increase it instead”.

Guidance on answering the questions that make up the indicator is provided in the table below.

		Conditions necessary for answer of:		
Q	NO	PARTIAL	YES	
1	Planning essentially assumes future climatic conditions will resemble those of today.	Some consideration of ranges of uncertainty for longer planning horizons, but either not routine based on limited data and no formal guidance.	Routine use of envelopes of uncertainty, based on range of data sources represent relevant variables, to define ranges of plausible future climatic conditions where relevant to planning horizons (medium to long-term)	
2	No use of scenario planning in wider planning activities.	Some use of scenario planning, but not routine or widespread.	Scenario planning routinely used to explore implications of different sets of plausible future conditions, in order to identify most appropriate development/adaptation trajectories.	
3	Risks of maladaptation not acknowledged – business-as-usual development even where climate change poses potential systemic risks to development.	Risks of maladaptation acknowledged and some measures made to address these risks, but no significant re-evaluation of development strategies (business-as-usual with adaptation as “add-on”).	Maladaptation risks considered carefully and at early stage in planning, so that development strategies may be redesigned or rethought where risks are significant.	
4	No guidance frameworks exist.	Some guidance available that addresses uncertainty, but that falls short of formal guidance on defining envelopes of uncertainty & addressing maladaptation.	Well-developed guidance available on how to address uncertainty, including defining envelopes of uncertainty, & identifying & avoiding maladaptation risks.	
5	Planning is rigid with little or no scope for changes to development trajectories in the light of new information on climate change risks.	Appreciation of need to maintain flexibility in development trajectories to respond to new information on climate change risks is evident, with some measures to achieve this, but these are patchy, ad hoc, and not informed by any well-developed guidance.	Well-developed mechanisms exist to ensure that planning and development in general is sufficiently flexible to accommodate new information (e.g. based on guidance on “low-regrets” options, and built-in redundancy).	
Rationale	While we can be confident about some manifestations of climate change (e.g. rising sea-levels; reduced water availability in many areas; higher minimum, average and maximum temperatures; greater climate variability; more frequent and severe droughts and floods, and increase precipitation intensity in some areas), many uncertainties remain regarding precisely how climate change will impact particular geographic areas and systems over specific timescales. In some instances the uncertainty is related to the magnitude of future changes (e.g. sea-level rise), while in others uncertainty is associated with the sign of future changes (e.g. uncertainty as to whether rainfall will increase or decrease in some locations such as the Sahel).			

	<p>For these reasons, we cannot plan for precisely known future conditions. Development needs to be robust in the face of this uncertainty (e.g. “win-win” options that will be viable whatever climatic conditions pertain in the future), to be sufficiently flexible that it can be adapted in the light of new information or unexpected changes, and to avoid maladaptation, e.g. through “lock-in” to patterns of development that depend on future conditions that might not exist.</p> <p>It is therefore vitally important that planning – particularly for long timescales – addresses and accommodates uncertainty.</p>
Data source	Where assessments using planning indicators are carried out by external consultants, they will be based on consultations with CO staff and DFID development partners and national governments. Where assessments are carried out by COs themselves, they will be based on the judgment of key CO staff with responsibility for supporting the national processes and sectors in question, e.g. through sector budget support.
Data included and data aggregation	<p>Data will be collected through evaluations based on completion of the scorecard (above) at specified intervals. Depending on the purpose of the evaluation, the scorecard might be completed by staff in donors’ country offices, by external consultants, or (for national self-assessment) by government or other relevant personnel.</p> <p>Where assessments are carried out by external consultants, they will be based on consultations with key staff in the sectors being evaluated and (where appropriate) staff within donor country offices. Where assessments are carried out by country offices, they will be based on the judgment of key country office staff with responsibility for supporting the (national) processes and sectors in question, e.g. through sector budget support. In the case of self-assessment, they will be carried out by staff familiar with the relevant sectors.</p> <p>When assigning scores, evaluators concerned with the efficacy of support programmes should also record complementary qualitative information relating to attribution of outcomes to interventions. This information might include notes on the chronology of changes across the target sectors relative to key outputs from support programmes, the views of key stakeholders regarding the extent to which outcomes are direct (or indirect) consequences of programme outputs, and the identification of ‘pathways of change’ that link outputs and outcomes (e.g. via key mechanisms, processes, events).</p>
Most recent baseline	<p><i>Support to a single institution, sector, mechanism or process</i></p> <p>Where the indicator is used to report on outcomes from support to a single system or entity (i.e. institution, sector, mechanisms or process), the data reported will be the score calculated across the 5 questions that make up the indicator (up to a maximum of 10), applied to the system targeted by the support. Where this support is from a single intervention/programme, the scorecard should be completed at the beginning of the programme, during the programme (e.g. annually in the logframe), and at the end of the programme. Where support is from multiple programmes, the scorecard should be conducted at regular intervals (e.g. annually, 6-monthly) spanning the period of support.</p> <p><i>Support to multiple institutions, sectors, mechanisms or process</i></p> <p>Where the indicator is used to report on outcomes from support to multiple systems or entities (e.g. from multiple support programmes across multiple sectors for a cross-sectoral national-level assessment), an overall score may be calculated by averaging the totals for each relevant system/entity. However, such aggregated scores should always be presented alongside disaggregated data (detailing results for individual target systems) so that areas of strength and weakness can be identified (e.g. in specific sectors, ministries, etc). Alternatively, a national system might be assessed as whole.</p>

	<p>The approach taken will depend on the purpose of the assessment (e.g. a comprehensive assessment of CRM at the national level across all relevant sectors versus an assessment of national mechanisms that sit 'above' the sectoral level). It will also depend on the national CRM 'architecture' (e.g. is CRM coordinated centrally by a body that has authority over relevant sectors, or decentralised down to the sectoral level).</p> <p><i>Interpretation</i> In all cases, scores should be presented alongside qualitative information related to attribution (see data included and aggregation).</p> <p>Outcomes will be assessed on the basis of changes in the score over time, over the lifetime of the programme or programmes being evaluated, or otherwise at regular intervals for (e.g. internal) evaluation of planning systems in general. Attribution of outcomes to outputs will be assessed through the use of complementary qualitative information.</p>
Good performance	The baseline will be represented by the first available set of results, i.e. the first time the scorecard is applied to a system. Subsequent assessments will be looking for an improvement/increases in score(s) relative to this first assessment.
Return format (options)	<ol style="list-style-type: none"> 1. Scores (out of 10) at different points in time (e.g. before, during, after intervention) 2. Numbers of target systems (within or across countries) improving scores by different amounts (increasing over time) <p>For the assessment of multiple systems (e.g. sectors, ministries, countries, etc), results might be represented graphically. For reporting directed at target systems, changes in scores over a specified time period (from -10 to +10 at the theoretical extremes) might be represented along the horizontal axis, and numbers of systems (for each integer change in score) along the vertical axis.</p>
Data dis-aggregation	If the indicator is to be presented as a single score out of 10 as in "Return format", answers for each of the 5 questions from which the indicator is constituted should also be preserved, so that areas of strength and weakness can be identified. Similarly, where evaluation of multiple target systems has involved aggregation/averaging across systems, results should be preserved for individual systems.
Data availability	Evaluation of this indicator does not depend on the availability of independent/external data. The indicator is based on the judgment of those assessing the processes in question (programme managers, country office staff, such as climate change advisers, implementing partners, external consultants). Guidance is provided on how to complete the scorecard, based on criteria for different answers for each question making up the indicator. Data are therefore based on one or more of the following: (i) the informed judgment of the evaluators, (ii) knowledge of the relevant programmes and target systems, (iii) consultations with stakeholders (who will include country office staff if the assessment is carried out externally). The availability of reliable data therefore will depend on the level of knowledge of personnel involved in the evaluation, and/or on the quality of consultations. However, there should be sufficient knowledge among evaluators to ensure that the scorecard is completed realistically.
Time period/ lag	Where this indicator is applied in the context of individual programmes, it should be assessed annually in programme logframes, based on assessment of the target system(s). The indicator can also be applied to target systems (e.g. national systems, sectors, ministries, etc) on a regular (e.g. annual or biennial) basis, for example where these systems receive budget support.
Quality assurance measures	Where this indicator is assessed internally (e.g. by country office staff), an independent assessment might be performed (e.g. during a strategic review) by external experts. The answers to the 5 questions constituting the indicator

	should be justified by some explanation, e.g. describing the nature of the screening or mainstreaming processes and giving examples of measures to address climate change that have been identified during the assessment.
Data issues	It is recognised that some element of subjective judgment is required, although the questions have been designed to be quite specific and transparent, with supporting guidance on how to answer the questions. In some cases data may be based on implementing partners' own assessments.
Additional comments	This indicator might be complemented by quantitative or categorical output indicators that can be applied directly to support programmes whose goals include the realisation of the outcomes addressed by the indicator.