Ecosystems Indicator Group (9d): Progress Update

Expert Group (in alphabetical order)

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Key findings

- Substantial work has been required to bring the dataset into a form for analysis, and more effort will be needed to move forward from here, especially on the other criteria in para 12.

- For 9d, most indicators are submitted by UN parties followed by negotiating groups (e.g. AGN, LDC, EU, Arab and AOSIS) and then relevant NGOs.These indicators are more likely linked to water and food than the other themes. Most indicators submitted are associated with 10c. Almost all are already existing. However, many entries are incomplete.

- For the 1294 9d indicators, expert evaluation of whether an indicator is relevant to criteria 12a and criteria 12b has been completed.

- Most indicators are evaluated as either most likely yes (confirmed by two experts) or possible yes (assessed by one expert) on 12a and 12b.

- However, the consistency between different experts on the indicators is somewhat low with 48.5% agreement over the indicators.

- Next steps require:
    - Efforts by the experts to develop an agreed upon understanding of what is an indicator in the context of the GGA to improve consistency and agreement on indicators along the para 12 criteria

- Additional efforts to build on the dataset is needed to evaluate additional para 12 criteria.

Contents and progress to date

1. Observations and analysis of dataset
    a. We conducted an analysis of 1294 9d indicators that were identified after removing duplicates.
    b. Statistics / numbers of indicators for 9d and overall observations of the dataset

2. Coding of indicators for relevance to 12a and 12b, categorized as Yes/No/Maybe
    a. We had two experts review each of the indicators for their relevance to 12a and 12b with explanations where relevant,
    b. Analysis of agreement and convergence amongst experts

Observations and analysis after duplicates removed, including examples:

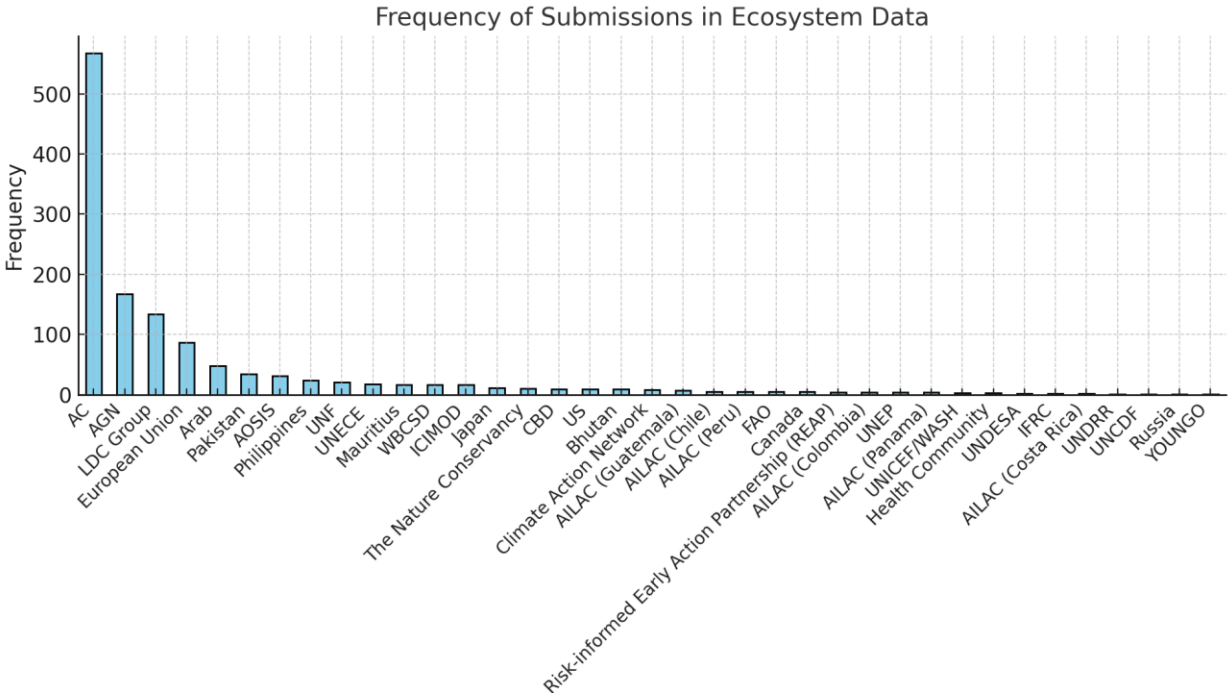
Observations on original dataset and the issue of duplicates: When first provided with the dataset, we noted multiple duplicates and conducted substantial analysis to remove them. All expert groups were subsequently provided with a harmonized dataset with duplicates removed. While this has removed multiple submissions as well as some functionally similar indicators, the dataset still contains indicators that are duplicates or are functionally similar (e.g. hectares protected or hectares protected as a percentage of all hectares). In these cases, there would be ways to further reduce the number of indicators by selecting the option or options that are the best indicators of the relevant set. We would need substantially more time, however, to do this systematically.

Key characteristics of dataset: Here we analyze a few key characteristics of the dataset which could be readily extracted and have sufficient content to draw statistical inference. We note that for many characteristics, there is insufficient information across all indicators to reliably draw out trends. In these cases, more data collection beyond what was provided in the dataset would be required and would be necessary to adequately and accurately respond to some of the criteria in 12 from the SBSTA/SBI.

- **Who submitted the indicators:**

  The Adaptation Committee provided almost 50% of the indicators that are in the dataset with the African Group, the LDC, EU, the Arab Group, and AOSIS providing the next largest proportion. Smaller sets of indicators were provided by others in the UN

system, relevant NGOs (such as ICIMOD, the Nature Conservancy, and Climate Action Network), and countries.



- **What are they linked to in thematic targets:**

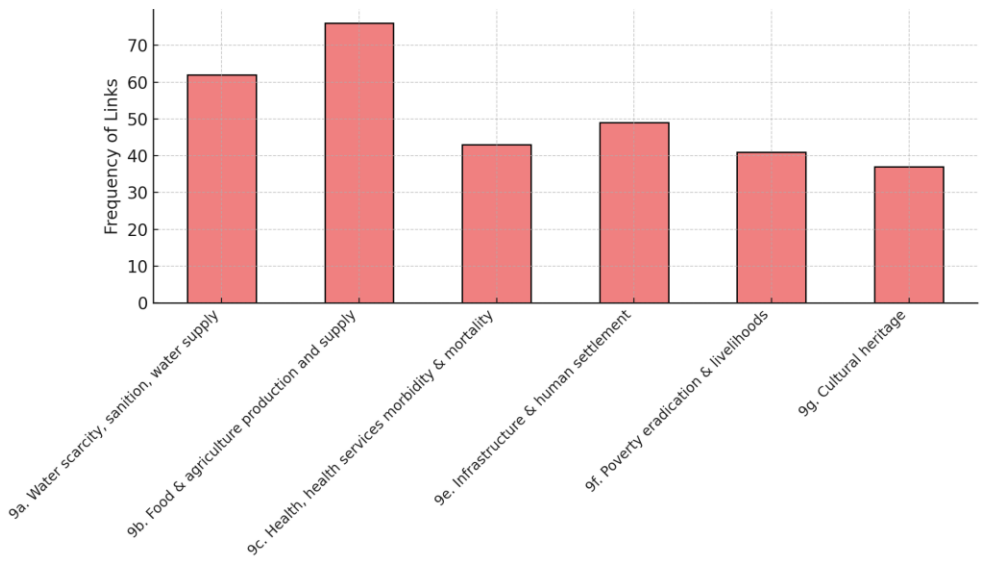
  Indicators on ecosystems and biodiversity are linked more to 9a (water) and 9b (food) than the other themes. This generally follows our expectations that ecosystems are linked to other services that nature provides.

  We also anticipate links to health, livelihoods, cultural heritage (especially as it relates to Indigenous Peoples) and infrastructure (e.g. nature based solutions). This is also observed in the dataset.

  As nature underpins much of our functioning, we would also expect to see it centrally represented and linked thorough indicators.

- 9a. Water scarcity, sanitation, water supply: 62 entries
- 9b. Food & agriculture production and supply: 76 entries
- 9c. Health, health services morbidity & mortality: 43 entries
- 9e. Infrastructure & human settlement: 49 entries
- 9f. Poverty eradication & livelihoods: 41 entries

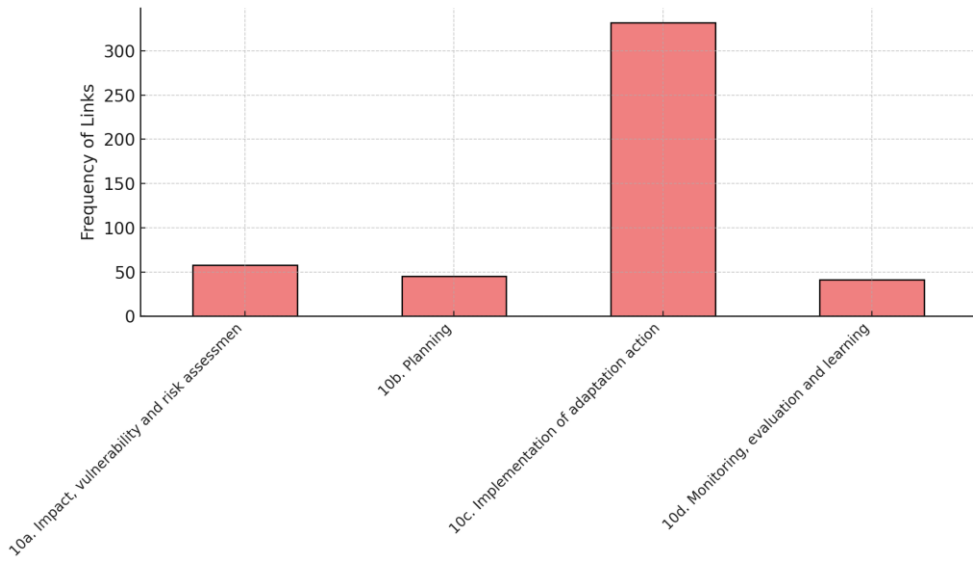
- 9g. Cultural heritage: 37 entries



- **What are they linked to in dimensional targets**

  941 entries were not linked to dimensional targets. This is approximately 70% of the dataset. Where there are links, they are primarily to implementation of adaptation actions.

- 10a. Impact, vulnerability and risk assessment: 58 entries
- 10b. Planning: 45 entries
- 10c. Implementation of adaptation action: 332 entries
- 10d. Monitoring, evaluation, and learning: 41 entries



- **Existing versus New Indicators**

  Approximately 55% of the indicators contained information about whether they are existing/new/unclear. Of these, 95% are labeled as existing.

  - **675** are labeled as "Existing."
  - **20** are labeled as "New."
  - **16** are labeled as "Unclear."

Coding of indicators for relevance to 12a and 12b, categorized as Yes/No/Maybe

- **Overall coding:** We have coded the entire dataset with at least one coder. Overall, we have evaluated that most indicators are “yes” on 12a and 12b. Up to approximately 65% of the dataset is relevant for 12a and 12b. Generally, if an indicator was evaluated as being relevant to 12a, it was then also found to be relevant to 12b.

- **Analysis of coders:** Each expert coded approximately 400 indicators. The experts had different assessments of how many were relevant indicators (yes) to 9d, ranging from 20% to 80% of the coded indicators with a median coder of approximately 60% of the indicators provided in the dataset being relevant to 9d. This suggests that there are divergent understandings of what is a suitable indicator within the expert team. This is not unusual. One way to resolve this is to bring the experts into additional dialogue on characteristics of indicators to develop a common understanding.

- **Level of agreement between the coders:** We had two coders for about 50% of the dataset so far. For this coding, we have 341 where the two coders have agreement. This represents an agreement of 48.5% on the coding (e.g. two coders agree it is “yes”, “no” or “maybe”). This suggests a relatively low level of baseline agreement. The experts will need to review the approaches that they are applying to evaluate what is an indicator.

Common reasons for deciding relevance in relation to 12a and 12b

Common Reasons for ‘Yes’: Indicators with clear relevance to ecosystem functioning, biodiversity and species as well as indicators from relevant agreements such as the GBF were generally classified as yes. Examples include:

- “Restoration of natural flood plains” (ID = 148) which supports water resilience by regulating rivers, reducing flood intensity, and recharging aquifers, increasing resilience to extreme weather events, and protecting biodiversity.
- Indicators from SDG 15, such as SDG 15.3.1: Proportion of land that is degraded over total land area, (ID = 8) were also classified as yes.
- GBF targets (ID = 1292, 2981, 2982, 5039, 5040, 5041) were considered relevant.
- Other indicators that address species and species loss were also selected as yes, such as “bird ranges and overwintering areas, ID = 268”.

Common reasons for ‘No’:

- Indicators could lead to maladaptation: For example, “share of pine trees in replanting on dry soil (ID = 102). Here, not every ecosystem should be evaluated by pine trees and this could measure the result of an action that may not be desirable from the perspective of ecosystem and biodiversity. This was also assessed in “Reforested area” (ID = 3824) which does not imply ecosystem conservation and could even have the opposite effect (e.g. monoculture of exotic species)

- Insufficient details or specificity: For example, “biodiversity-friendly landuse planning” (ID = 296), this is very general and may not even be considered an indicator.

- Some indicators are about risk and impact of climate change but not indicators to measure the progress or adaptation strategies. These are likely relevant however across thematic and dimensional targets and should be looked at more broadly.
- Unclarity on indicator definition, and in some cases, reports or assessments have been proposed as indicators.

Common reasons for 'Maybe': Here, there are a variety of reasons. The two main ones are a lack of clarity in the indicator description, and an evaluation that the indicator is describing an important issue but this indicator may not suffice "as-is" due to concerns about methods.

Other insights on the data and indicators.

- Some indicators are broad and would better sit with other targets or the overlap with other indicators may promote a framework rather than looking thematic targets in insolation.
- Some indicators are regional specific but could be broadened for global-scale application.

Recommendations for next steps post-COP and into 2025

- Experts go through all the indicators and develop clear coherence internally on what characteristics are key to being an indicator.

- Consideration of efficient ways to extend dataset on other para 12 characteristics where entries are very sparse currently.

- Review CBD and COP16 decisions for coherence. Ask state parties to reevaluate their actions towards ecosystems to help evaluate the use of indicators from other processes and identify gaps.