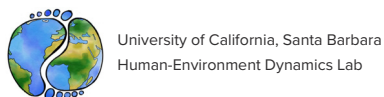# A Review of Pilot Country Workshops in Support of UNCCD Strategic Objectives (SO) 1, 2, and 3:

A case study testing the usefulness of the datasets and approaches suggested to monitor progress

David López-Carr (University of California – Santa Barbara), Greta Brablec and Kevin M. Mwenda (Brown University), Narcisa G. Pricope (University of North Carolina – Wilmington), Ingrid Teich (World Overview of Conservation Approaches and Technologies (WOCAT)), Maria Angélica Fernandez (Technical Consultant), Monica Noon, Gabriel Daldegan and Alex Zvoleff (Conservation International)

Tools4LDN Technical Report on Monitoring Progress Towards UNCCD Strategic Objective 4

A Review of Pilot Country Workshops in Support of UNCCD Strategic Objectives (SO) 1, 2, and 3:

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Acronyms

CI	Conservation International
DHS	Demographic and Health Surveys
DLDD	Desertification, Land Degradation, and Drought
GEF	Global Environment Facility
GPG	Good Practice Guidance
GPS	Global Positioning System
GPW	Gridded Population of the World
IPUMS	International – Integrated Public Use Microdata Series, International
LD	Land Degradation
LDN	Land Degradation Neutrality
LSMS	Living Standards Measurement Survey
LULC	Land Use/Land Cover
MICS	Multiple Indicators Cluster Survey
MPI	Multidimensional Poverty Index
SDG	Sustainable Development Goal
SO	Strategic Objective
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
USAID	U.S. Agency for International Development

Contents

1. Report Overview

This report summarizes findings from virtual workshops in Colombia as a pilot country to identify priority datasets, variables, and indices for monitoring **Desertification, Land Degradation, and Drought (DLDD)** in the context of United Nations Convention to Combat Desertification (UNCCD) Strategic Objective One (SO1), SO2, and SO3 and their expected impacts.

1.1   Executive Summary & Recommendations

This report summarizes findings from virtual workshops in Colombia as a pilot country to identify priority datasets, variables, and indices for monitoring Desertification, Land Degradation, and Drought (DLDD) in the context of United Nations Convention to Combat Desertification (UNCCD) Strategic Objective One (SO1), SO2, and SO3 and their expected impacts. It is important to assess needs at the national level for successful monitoring and evaluation toward Sustainable Development Goals (SDGs) and related UNCCD Objectives. Specifically, it is crucial that country partners be aware of suitable datasets, metrics, and indices for progress assessment and to be sufficiently adept in applying tools for monitoring and evaluation. The objective of this report was to develop a case study testing the usefulness of the datasets and approaches suggested to monitor progress towards SO1, SO2 and SO2 completed for the pilot country, Colombia.

In decision 18/COP.13, the UNCCD supported a framework for Land Degradation Neutrality (LDN) to support monitoring and evaluation towards meeting UNCCD strategic objectives. The three Strategic Objectives are as follows:

Strategic objective 1: To improve the condition of affected ecosystems, combat desertification/land degradation, promote sustainable land management and contribute to land degradation neutrality

Strategic objective 2: To improve the living conditions of affected populations

Strategic objective 3: To mitigate, adapt to, and manage the effects of drought in order to enhance resilience of vulnerable populations and ecosystems

We address the objective of this report through a questionnaire and focus group instruments to collect data from a target population of over forty Colombian experts involved in monitoring and evaluation of UNCCD

strategic objectives. The purpose of the workshop was to better understand the level of knowledge and needs for Colombian partners' monitoring and evaluation of SO1, SO2, and SO3. We collected information on prior knowledge of Trends.Earth, and of the UNCCD strategic objectives, and on priority needs for improving UNCCD-related monitoring and reporting. The ten-question questionnaire captures categorical and Likert scale data. The focus group interviews are open-ended with the aim of collecting qualitative data generated by the participants.

In the area of prior knowledge and use, ten of the fifteen respondents had knowledge of SO1, SO2 and SO3 before our workshops, suggesting a latent demand for training to improve monitoring and evaluation for each. Eight of fifteen respondents knew about Trends.Earth before the workshop, implying an opportunity for more outreach. However, only four of the fifteen respondents had used Trends.Earth before the workshop, suggesting again the latent demand for Trends.Earth training workshops.

Relative to capacity and needs, more financial resources were listed as the primary necessity for optimal monitoring of SO1, SO2, and SO3, followed by more trainings and workshops. Better data access and better user interface tools rounded out the first round of priorities among the respondents. Diverse responses were recorded for the question of level of understanding of SO1, SO2, and SO3 on a scale of one to ten. A level of understanding of "eight" was the most frequent response with four responses. On a scale of one to ten regarding data access for the three strategic objectives, the most often registered response was "five" which was recorded by five respondents. Levels three and six were mentioned by two and three responses and all the remaining numbers except two and seven were recorded by one individual each. Relative to an understanding of creating indicators from existing data for the three strategic objectives, five responded that their level of understanding on a scale of one to ten was "eight". Four respondents recorded a level of understanding of "five" while five more considered their level of understanding as poor, ranking their understanding of indicator creation at "four" or below. In terms of understanding Trends.Earth for monitoring SO1, SO2, and SO3, five respondents registered a "five" on the scale from one to ten. Seven scored a "seven" or above for their level of understanding and three marked four or less for their understanding. In rating the workshops, five answered "five" on a scale of one to ten. One scored the training only a "three" and the remaining registered a

positive rating of the workshops by scoring them between seven and ten. Most respondents answered that there were data related to the three strategic objectives not presented in the workshops. Examples include drought measures, and soil water availability. Five respondents added that "national erosion, salinization, and desertification data" is available at the national level in Colombia and was not presented in the workshops, indicating the importance of integrating national data for DLDD monitoring and reporting.

Among the eight focus group participants who took part in our initial survey, half knew what SO1 and SO3 were before the workshop and six knew of SO2. Towards optimal monitoring of the Strategic Objectives, one participant discussed the need for expanded support for trainings. Another commented on the importance of implementing action beyond simply producing a report. Another participant stated that "we need to gauge the importance of land degradation and what it entails". Lastly, a participant prioritized the need for resources to focus on "coordinating through an office that would become the coordinator". In terms of a priority to improve SO2 and SO3 monitoring in country, one participant suggested that land degradation drives climate change and therefore, "a clear message for the UN and UNCCD is to give more importance to land degradation worldwide and have clarity on its importance, as well as its repercussions (food, water, survival are at stake)". Another informant noted the importance of having baselines that reflect reality on the ground. They pointed out, for example, that SO1 indicators reflect vegetation, productivity, and socio-economic systems with the intention to minimize land degradation by 2030 but that "if local data on these indicators do not exist, then using global data may mask the actual realities that exist in the country". A second participant prioritized the need for financing and pointed out that that the financial amount is "usually small for this convention compared to the one for climate change". A third respondent supported the first two and added that "the convention would do well in terms of LDN, which has opened the topics of climate change and biodiversity as well". In response to whether there was SO1, SO2, or SO3 related data that was not presented was used by the participants, there were several affirmative responses. One participant noted, for example, that "for SO1, including erosion, salinization, and desertification; baselines exist for the former two that can be monitored and involve real data". A second participant pointed out the importance of distinguishing pattern from process. Another participant

asserts that "the challenge is to generate data, indicators, and proxies for these indicators that truly reflect the reality of each country, and this results in some data that must go beyond the report".

Several conclusions and recommendations emerge. A latent demand for training to improve monitoring and evaluation is apparent. Since only a quarter of participants had experience using Trends.Earth, training workshops featuring this tool are recommended. More financial investments in trainings are recommended in order to build local capacity and to improve data access. There was a high understanding of the three strategic objectives overall, suggesting that knowledge dissemination may not need to be a high priority. On the contrary, data access was considered mediocre by most participants, implying again the need for improving and increasing trainings at the country and local levels. Findings also suggest that future trainings should have as one of their foci creating indicators from existing data. One improvement in future workshops could be for workshop developers to have a better understanding of local measures for monitoring the Strategic Objectives that are not part of global data. Due to the limited sample size of this study, further surveys are recommended.

In addition to echoing survey results that show the need for expanded support for trainings, focus group results suggest that more could be done to ensure that country reports are used for policy and for land user stakeholders. Perhaps holding joint meetings between authors of the country reports and policy makers would be a positive step in this direction. Focus group results also indicate the need for the UNCCD to more closely link climate change to LDN and to improve messaging on the importance of climate, as well as soil and water in LDN. Perhaps climate change aspects of LDN could be integrated more closely as part of the LDN framework explicitly in future reports. Another focus group result showed concern for global data masking local processes and patterns important to LDN. This again suggests the need for future trainings to incorporate local data. Future workshops could usefully build on lessons learned from this workshop in the pilot country of Colombia in order to enhance country Parties' Desertification, Land Degradation, and Drought (DLDD) monitoring and evaluation.

1.2   Introduction

1.2.1   Background and Significance of the UNCCD and SDGs

This report supports Strategic Objectives 1, 2, and 3 of the United Nations Convention to Combat Desertification (UNCCD) Strategic Framework for 2018-2030 (Decision 7/COP.13). We report on workshops in Colombia as a pilot country to identify priority datasets, variables, and indices for monitoring Desertification, Land Degradation, and Drought (DLDD) in the context of SO1, SO2, and SO3 and their expected impacts.

The COP.13 Strategic Framework highlights the challenges faced by the global community from DLDD, and its impacts on "economic, social, and environmental problems" that "pose serious challenges to sustainable development". It recognizes that addressing DLDD will require diverse efforts that will improve the productivity of land and the rehabilitation, conservation and sustainable management of land and water resources. The vision of the Strategic Framework is:

"A future that avoids, minimizes, and reverses desertification/land degradation and mitigates the effects of drought in affected areas at all levels and strives to achieve a land degradation-neutral world consistent with the 2030 Agenda for Sustainable Development, within the scope of the Convention (Decision 7/COP.13)".

Publicly available geospatial data enables UNCCD country Parties to report on LDN in a standardized format comparable to other nations in the absence of suitable national data. The good practice guidance (GPG) suggests that national data are the preferred sources for reporting, global standardized data can assist country Parties when national data is absent or scarce and to complement and enhance national data (Daldegan et al 2020).

For the successful and timely monitoring and evaluation of country Party progress toward SDGs and cognate UNCCD Objectives, it is critical to evaluate monitoring

and evaluation processes and needs at the national level. There is a need for country partners to be sufficiently aware of suitable datasets, metrics, and indices for progress assessment and to be sufficiently capable in using appropriate tools for monitoring and evaluation. Therefore, this report assesses a series of workshops held in Colombia with strategic partners to better understand local needs and awareness suitable datasets, metrics, and indicators to facilitate country-level implementation of UNCCD SO1, 2, and 3 and related SDGs through Trends.Earth. With the goal of enhancing GEF and UNCCD monitoring and reporting, Conservation International (CI) scientists developed The Trends.Earth[1]

platform with support from the Global Environment Facility (GEF). The tool enables country Parties to access the most appropriate data on land status and trends through a novel cloud and desktop-based platform. The tool integrates local data with global and national-scale information. A free and open-source platform, over 130 country partners have been trained in the use of Trends. Earth as a monitoring tool for DLDD.

Below we introduce report objectives followed by our methodological approach. Following this, we analyze data collected through surveys and focus groups with country Partners on datasets and indices for monitoring progress for SO1, SO2, and SO3 and conclude with suggestions for potential next steps for developing global DDLD monitoring and evaluation and for the development of frameworks and tools.

1.2.2 Objective of the Report

- To Develop a case study testing the usefulness of the datasets and approaches suggested to monitor progress towards SO1, SO2 and SO3 for the pilot country.

1.2.3 Strategic Objectives 1 - 3

In decision 18/COP.13, the UNCCD supported a framework for LDN which provides a scientific basis to understand LDN to support monitoring and evaluation towards meeting UNCCD strategic objectives. The 3 Strategic Objectives and their expected outcomes are as follows:

Strategic Objective 1: To improve the condition of affected ecosystems, combat desertification/land degradation, promote sustainable land management and contribute to land degradation neutrality

Expected impact 1.1 Land productivity and related ecosystems services are maintained or enhanced.

Expected impact 1.2 The vulnerability of affected ecosystems is reduced, and the resilience of ecosystems is increased.

Expected impact 1.3 National voluntary land degradation neutrality targets are set and adopted by countries wishing to do so, related measures are identified and implemented, and necessary monitoring systems are established.

Expected impact 1.4 Measures for sustainable land management and the combating of desertification/land degradation are shared, promoted, and implemented.

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1 Trends.Earth. Conservation International. Available online at: http://trends.earth. 2018.

Strategic Objective 2: To improve the living conditions of affected populations

Expected impact 2.1 Food security and adequate access to water for people in affected areas is improved.

Expected impact 2.2 The livelihoods of people in affected areas are improved and diversified.

Expected impact 2.3 Local people, especially women and youth, are empowered and participate in decision-making processes in combating DLDD.

Expected impact 2.4 Migration forced by desertification and land degradation is substantially reduced.

Strategic Objective 3: To mitigate, adapt to, and manage the effects of drought in order to enhance resilience of vulnerable populations and ecosystems

Expected impact 3.1 Ecosystems' vulnerability to drought is reduced, including through sustainable land and water management practices.

Expected impact 3.2 Communities' resilience to drought is increased.

The Good Practice Guidance (GPG) for SDG Indicator 15.3.1 provides methodological direction for reporting on SDG Indicator 15.3.1, UNCCD Strategic Objective One (Sims et al 2019). Daldegan et al. (2020) provide additional guidance for SO1 with a focus on the Trends. Earth end user. The authors undertake a review of publicly available datasets for improved monitoring of the

three SDG 15.3.1 sub-indicators: trends in land cover, land productivity, and carbon stocks. Additionally, the authors introduce several datasets with spatial resolutions of sufficient granularity (i.e., 10 – 30 m) to examine human drivers of DLDD.

In regard to SO3, Pricope et al. (2021) provide a conceptual framework and review publicly available datasets and indicators in support of monitoring drought hazard, exposure, and vulnerability. The authors offer recommendations for optimization of the Trends.Earth platform for SO3 monitoring and evaluation. Additionally, the GPG for SO3 (Barker et al 2021) provides advice on SO3 monitoring and reporting best practices.

For SO2, López-Carr et al (2021) develop a conceptual framework and review data and indices. Similar to Pricope et al (2021), the authors develop inclusion criteria for data, with an emphasis on global, spatially explicit, freely available data. Among the global population data reviewed, WorldPop and Demographic and Health Surveys (DHS) emerge as preferred datasets for examining populations impacted by DLDD. DHS and IPUMS data are advised for migration dimensions of DLDD. The authors recommend further integration of datasets into Trends. Earth from the preferred datasets featured in the report.

METHODS

The team developed a questionnaire and focus group instruments (see instruments in Appendix) to collect data from a target population of over forty Colombian experts who are involved in monitoring and evaluation of UNCCD strategic objectives held virtually due to the COVID-19 pandemic, on November 9, 2021. Both instruments collected information on prior knowledge of Trends.Earth and of the UNCCD strategic objectives and on priority needs for improving UNCCD-related monitoring and reporting. The ten-question questionnaire solicits quantitative information, including categorical and Likert scale data. Questionnaires were semi-structured and allowed for open-ended responses as well as quantitative data. The focus groups are open-ended with the aim of capturing qualitative data generated by the participants. The quantitative questionnaire shows patterns while the qualitative focus groups assist in interpreting and understanding these patterns.

RESULTS

Tools4LDN Workshop on Integrating SO1, SO2, and SO3 Indicators into Trends.Earth

The purpose of this workshop was to better understand the level of knowledge and needs for Colombian partners' monitoring and evaluation of SO1, SO2, and SO3. Participants answered a brief survey and participated in focus groups. The surveys and focus groups gauged the level of awareness of Trends.Earth and of SO1, SO2, and SO3 and asked participants about their needs for improved monitoring towards achievement of the UNCCD strategic objectives. Below we report on the results of the questionnaire and focus groups.

informant, a soil expert, noted that they knew of SO1, 2, and 3 due to a consultancy with the UNCCD and in the preparation of the Colombia UNCCD national report. Two agronomists were familiar with the SOs from earlier Colombia country reports they had reviewed.

Did you know what SO1, SO2 and SO3 were before these workshops?

● **Yes** ● **No**

Survey Questions

Prior Knowledge and Use

1. Did you know what SO1, SO2 and SO3 were before this workshop?

Ten of the 15 respondents had knowledge of SO1, SO2 and SO3 before our workshops, suggesting a latent demand for training to improve monitoring and evaluation for each. Three informants noted that this knowledge was necessary for their collaboration on the UNCCD (6th, 2018) Colombia report. A fourth
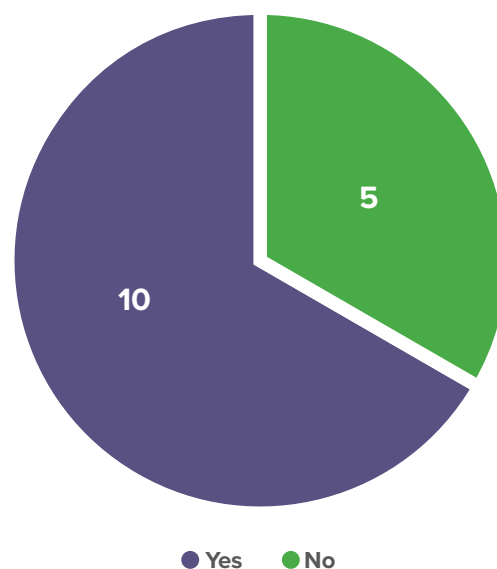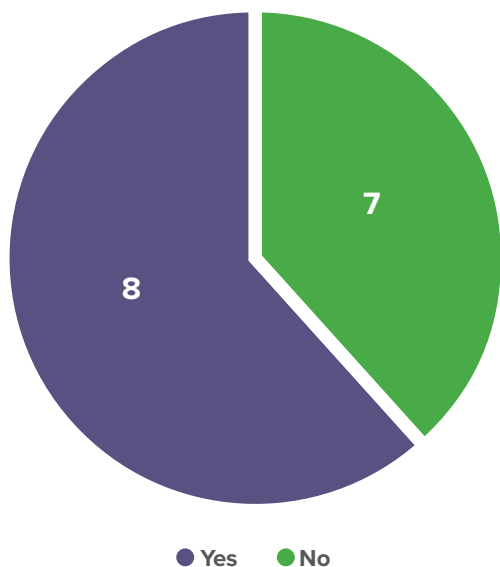
2. Did you know what Trends.Earth was before this workshop?

Eight of fifteen respondents knew about Trends.Earth before the workshop, suggesting ample opportunity for more outreach. One informant was familiar with Trends.Earth from "related prior events". Another had used national data and had not heard of Trends.Earth before the workshop. One informant commented that "generally we use or generate primary data on soil and land degradation as well as land cover and climate, which is why we haven't used global tools or data". Another noted that while they had used Trends.Earth previously, "this workshop was very useful to understand new possibilities with the tool". Two of the informants who were consultants for the 2018 Colombia UNCCD national report were familiar with Trends.Earth from the development of that report. One informant had heard about Trends.Earth through a webinar that was presented before the workshop.

3. Had you used Trends.Earth before this workshop?

Only four respondents had used Trends.Earth before the workshop, suggesting again a high latent demand for Trends.Earth training workshops. Two of the consultants on the 2018 UNCCD Colombia country report had used Trends.Earth in "land and soil degradation monitoring". Another consultant on the report noted that they had access to tables and maps from Trends.Earth that were produced by the GIS expert on their team. Another had used it for the first time in a webinar before the workshop, again suggesting the potential usefulness of training webinars to help Trends.Earth capabilities reach more end users. Lastly, one respondent claims to have used Trends.Earth in a limited manner in association with LandPKS.

Did you know what Trends.Earth was before these workshops?

Yes 8 · No 7

Had you used Trends.Earth before this workshop?

Yes 4 · No 11
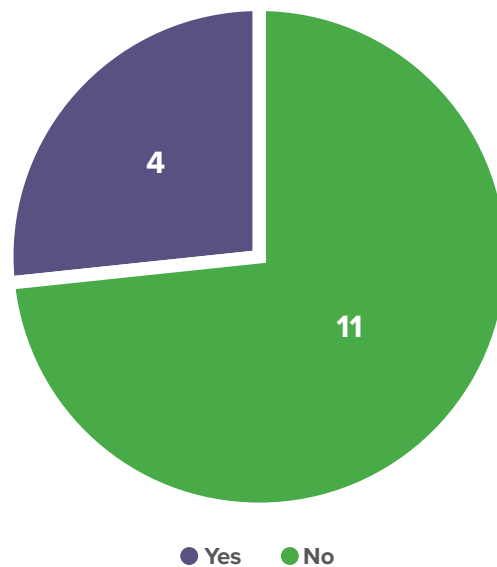
Capacity and Needs

1. Rank in order what your/your team's greatest needs for optimal monitoring of SO1, SO2, and SO3.

More financial resources were listed as the primary necessity for optimal monitoring of SO1, SO2, and SO3 followed by more trainings and workshops. Better data access and better user interface tools rounded out the first round of priorities among the respondents. For the second round of priorities, again more financial resources and more trainings and workshops were the top two cited needs for optimal monitoring of SO1, SO2, and SO3 followed closely by better data access and better user interface tools. In the third selection of priorities, more workshops and training were the top priorities followed by better data access and better user interface tools. In the

fourth choice of priorities, better user interface tools were ranked first by a wide margin.

Echoing the poll results, an informant adds that an important need is to "generate greater national expertise in financial resources in order to address the UNCCD strategic objectives". One respondent mentioned that Colombia has more detailed information that those used in the exercises and that is why this respondent ranks it lower than the other priorities. The respondent also notes that the majority of Colombian institutes do not have full time data engineers but rather part-time contractors. Another informant suggests that for any new user interface tool a training is needed. One participant offers that the main need is to "insist on the establishment of a local entity at the national level that takes on the leadership role for issues related to the UNCCD". Lastly, a workshop participant calls for "greater divulgation" of expertise.

Rank in order what your/your team's greatest needs for optimal monitoring of SO1, SO2, and SO3
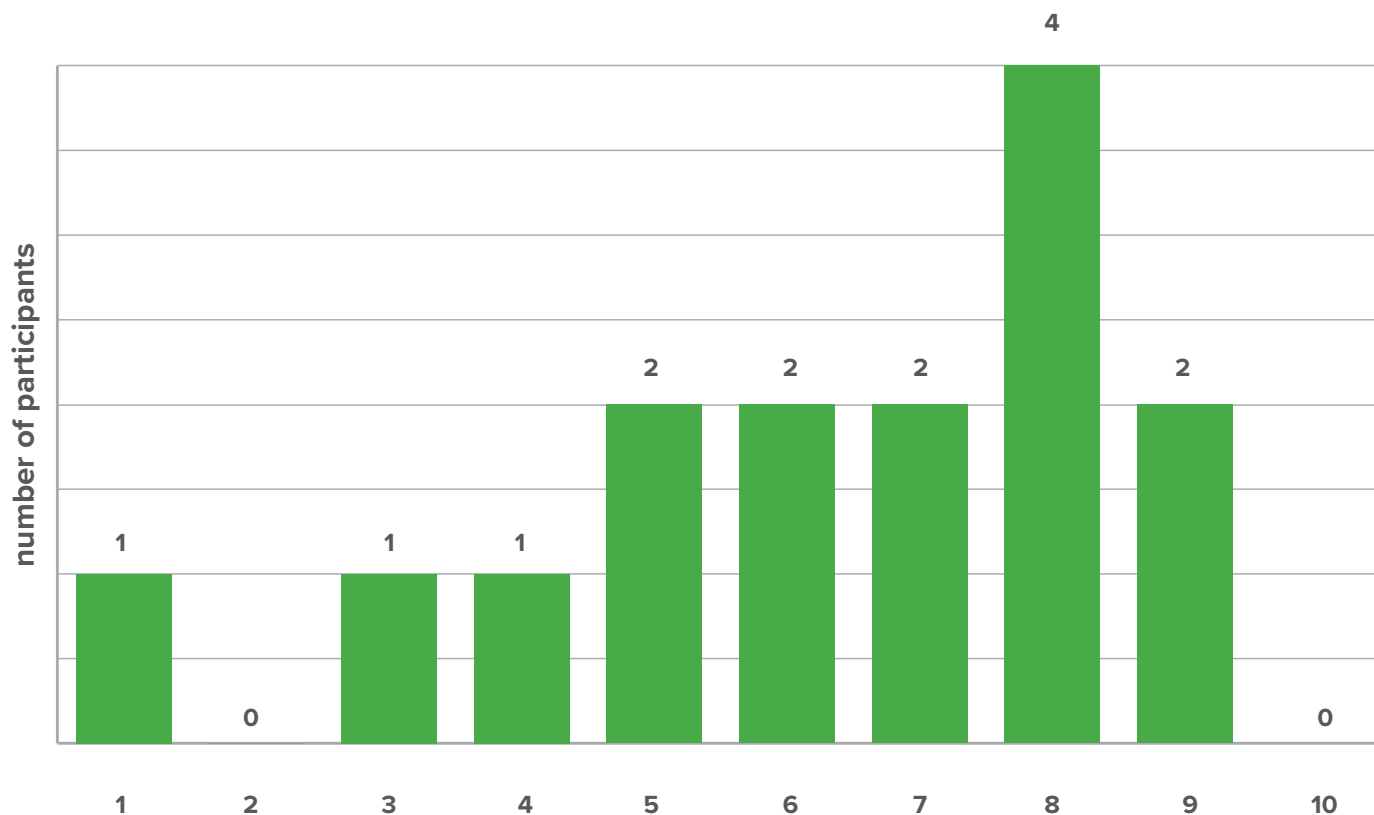
2. On a scale of one to ten, one being terrible and ten being optimal, how would you rate your understanding of SO1, SO2, and SO3?

Diverse responses were recorded for the question of level of understanding of SO1, SO2, and SO3 on a scale of one to ten, echoing statements about the need for greater dissemination of knowledge. A level of understanding of eight was the most frequent response with four responses. Levels of understanding represented by numbers five through seven, or medium to good, received two responses each. A lower understanding, represented by numbers one, three, and four on the ten-point scale was registered by only three people, one for each number.

In explaining their level of understanding of the Strategic Objectives, one respondent noted that they have ten years

"direct contact" with the indicators. Another respondent claims to understand well the strategic objectives but did not understand how they were assessed or calculated well. One respondent noted that they do not typically memorize project objectives by number but rather by a short name. This researcher feels that it is confusing to use numbers only to refer to the objectives. One participant opines that "evaluating the understanding [of the objectives] from a national vantage point, [they] consider that their score would be close to a ten to the extent there is a debate with greater participation among the different entities involved that would define an appropriate methodology to measure the indicators that reflect reality". One respondent has done analysis with "these objectives on the state of soils", while another understands the strategic objectives with difficulty because of lack of knowledge on the issue.

On a scale of one to ten, one being terrible and ten being optimal, how would you rate your understanding of SO1, SO2, and SO3?
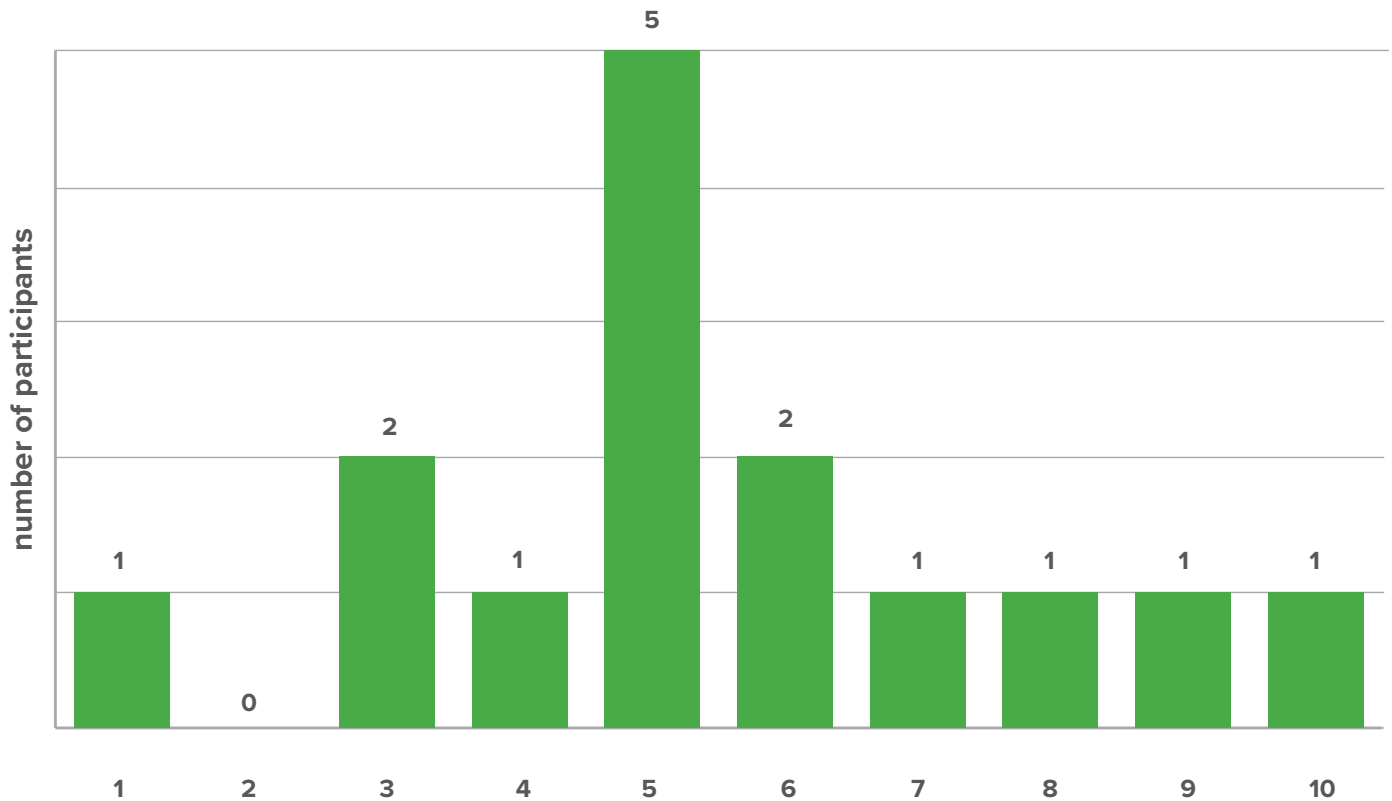
3. On a scale of one to ten, one being terrible and ten being optimal, how would you rate your understanding of data access for SO1, SO2, and SO3?

One a scale of one to ten regarding data access for the three Strategic Objectives, the most often registered response was five which was recorded by five respondents. Levels three and six were mentioned by two each and all the remaining numbers except two were recorded by one individual each. These results point to the potential importance of improving data access.

In their open-ended explanations, one respondent noted that "the access data are at a very global scale" and that therefore "it is necessary to use local information already available from primary sources (climate, land covers, soil degradation, indexes, etc.)". While one respondent mentioned that data access was "easy" another considers it "very important to know how to create the information that is used". A third participant noted that they lacked practice in accessing the data. One informant claimed that they understood the national data well but remained relatively less aware of access to global data. Another respondent noted that they have worked closely with the objectives in the national reports.

On a scale of one to ten, one being terrible and ten being optimal, how would you rate your understanding of data access for SO1, SO2, and SO3?
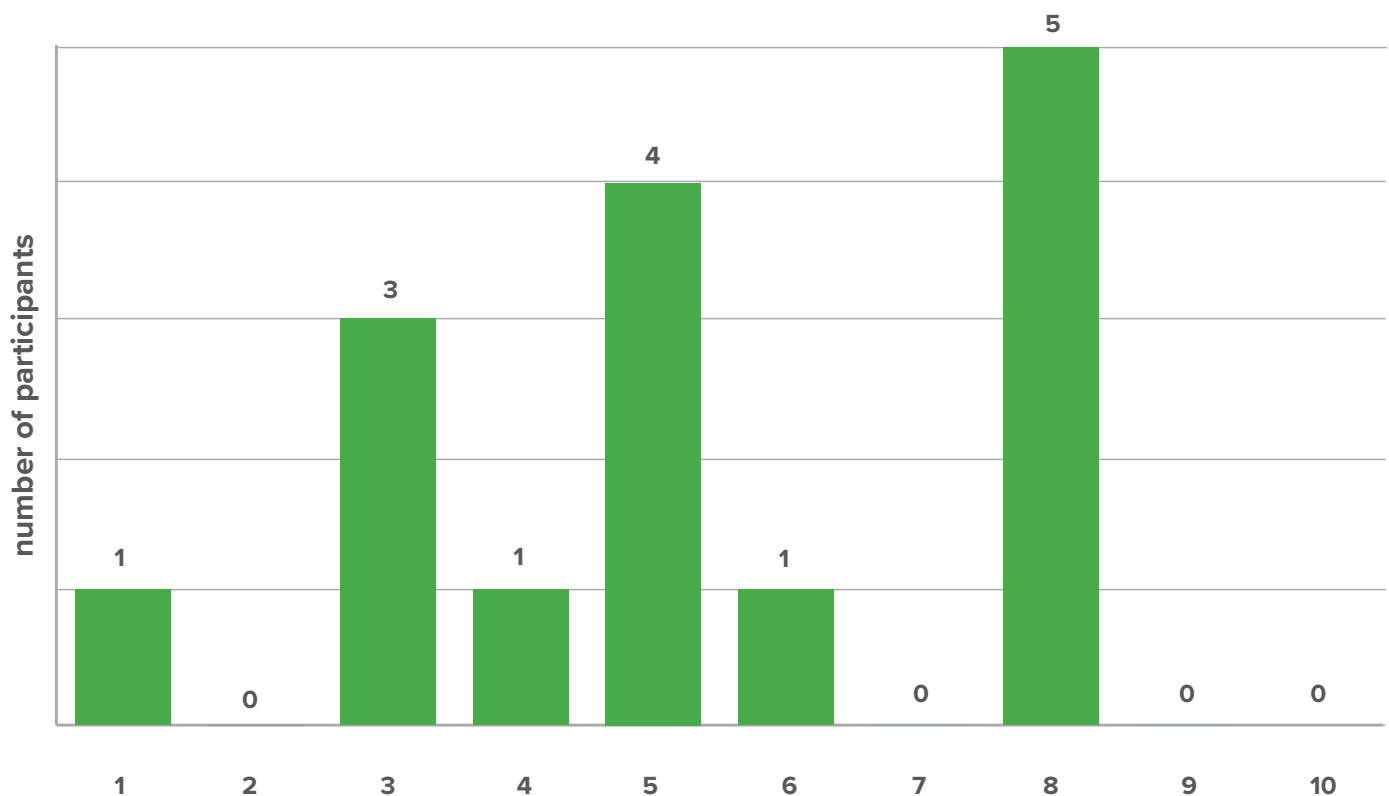
4. On a scale of one to ten, one being terrible and ten being optimal, how would you rate your understanding of creating indicators from existing data for SO1, SO2, and SO3?

Relative to an understanding of creating indicators from existing data for the three strategic objectives, five responded that their level of understanding on a scale of one to ten was "eight". Four respondents recorded a level of understanding of "five" while five more considered their level of understanding as poor, ranking their understanding of indicator creation at "four" or below.

This finding suggested that incorporating training in creating indicators would be useful to an important subset of end users.

One workshop participant noted that "creating indicators from available data is fine, but the idea is to integrate local data". Another considered that more training is needed. A third participant echoed the second, saying that in order to make adjustments for the case of Colombia, more workshops are needed. One respondent claimed to have "knowledge of the objectives, which helps to offer proposals". But they note that they still need to learn to "contextualize the process in the platform".

On a scale of one to ten, one being terrible and ten being optimal, how would you rate your understanding of creating indicators from existing data for SO1, SO2, and SO3?
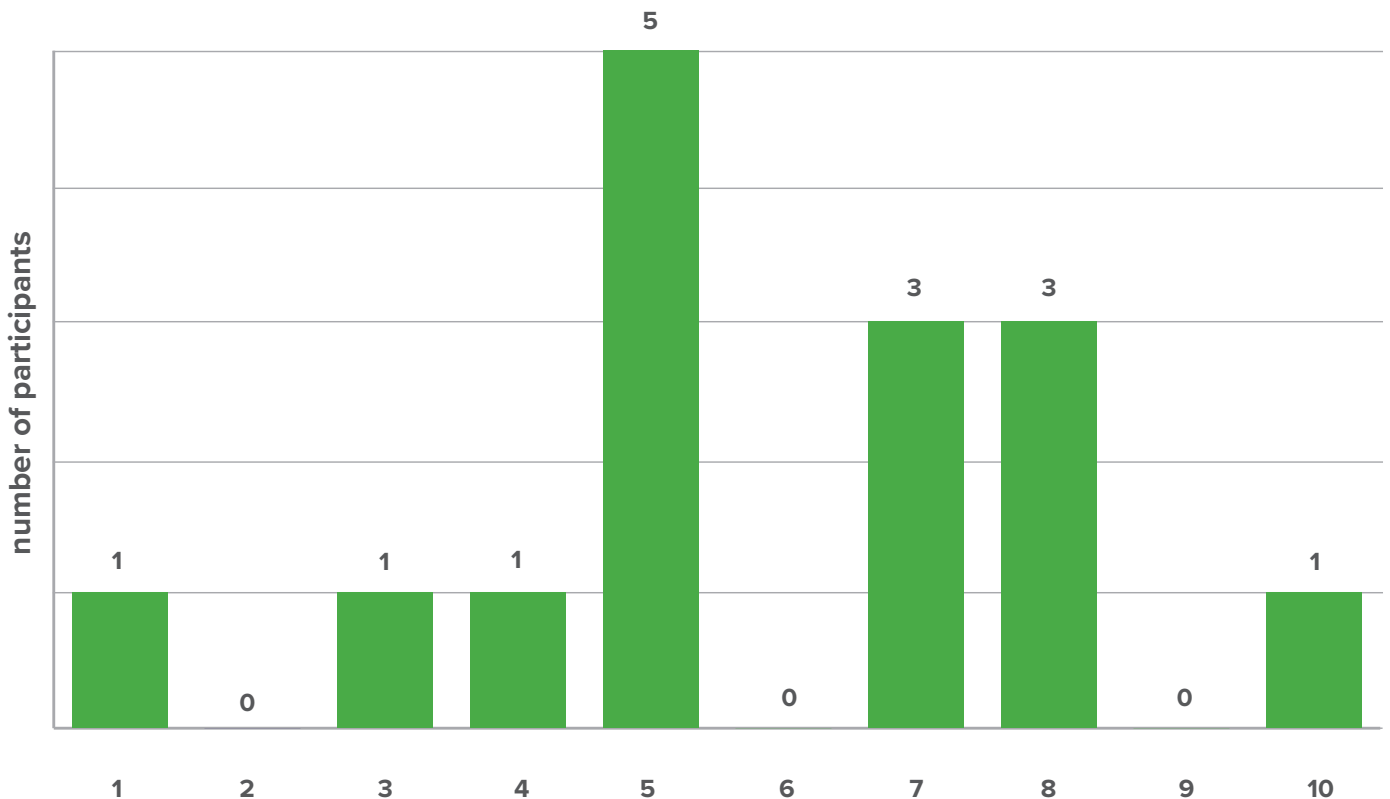
5. On a scale of one to ten, one being terrible and ten being optimal, how would you rate your understanding of Trends.Earth for monitoring SO1, SO2, and SO3?

Relative to understanding Trends.Earth for monitoring SO1, SO2, and SO3, five respondents registered a "five" on the scale from one to ten. Seven scored a seven or above for their level of understanding and three marked four or less as their level of understanding. These results suggest a modest to good level of understanding that supports the importance of improved knowledge dissemination for a subset of end users.

One respondent claimed that the "tool is very interesting". A second informant lamented that the data available is at a very general scale for Colombia while a third noted "conflicts between the Trends.Earth data and national data". A fourth informant suggested that better use of the tool is lacking. Perhaps reflecting many in the group, a last respondent said that they "understand the tool well but they need to improve".

On a scale of one to ten, one being terrible and ten being optimal, how would you rate your understanding of Trends.Earth for monitoring SO1, SO2, and SO3?

6. On a scale of one to ten, one being terrible and ten being optimal, how would you rate the workshops on using Trends.Earth for monitoring SO1, SO2, and SO3?

In rating the workshops, five answered "five" on a scale of one to ten. One scored the training only a "three" and the remaining registered a positive rating of the workshops by scoring them between seven and ten. Results suggest that future workshops could be improved by following guidance generated in the interviews in this report.

One informant claimed that the workshops were "very important in order to understand this tool" while a second called them "useful" and a third referred to them as "medium". Some respondents offered potential improvements for the workshops. For example, one noted that while the workshops were very organized, "more thematic discussions about the variables" could have been incorporated into the trainings. Another offered that while the trainings were "excellent", "more time to emphasize and interact in practice was lacking". Another noted that they could benefit from more training still.

On a scale of one to ten, one being terrible and ten being optimal, how would you rate the workshops on using Trends.Earth for monitoring SO1, SO2, and SO3?
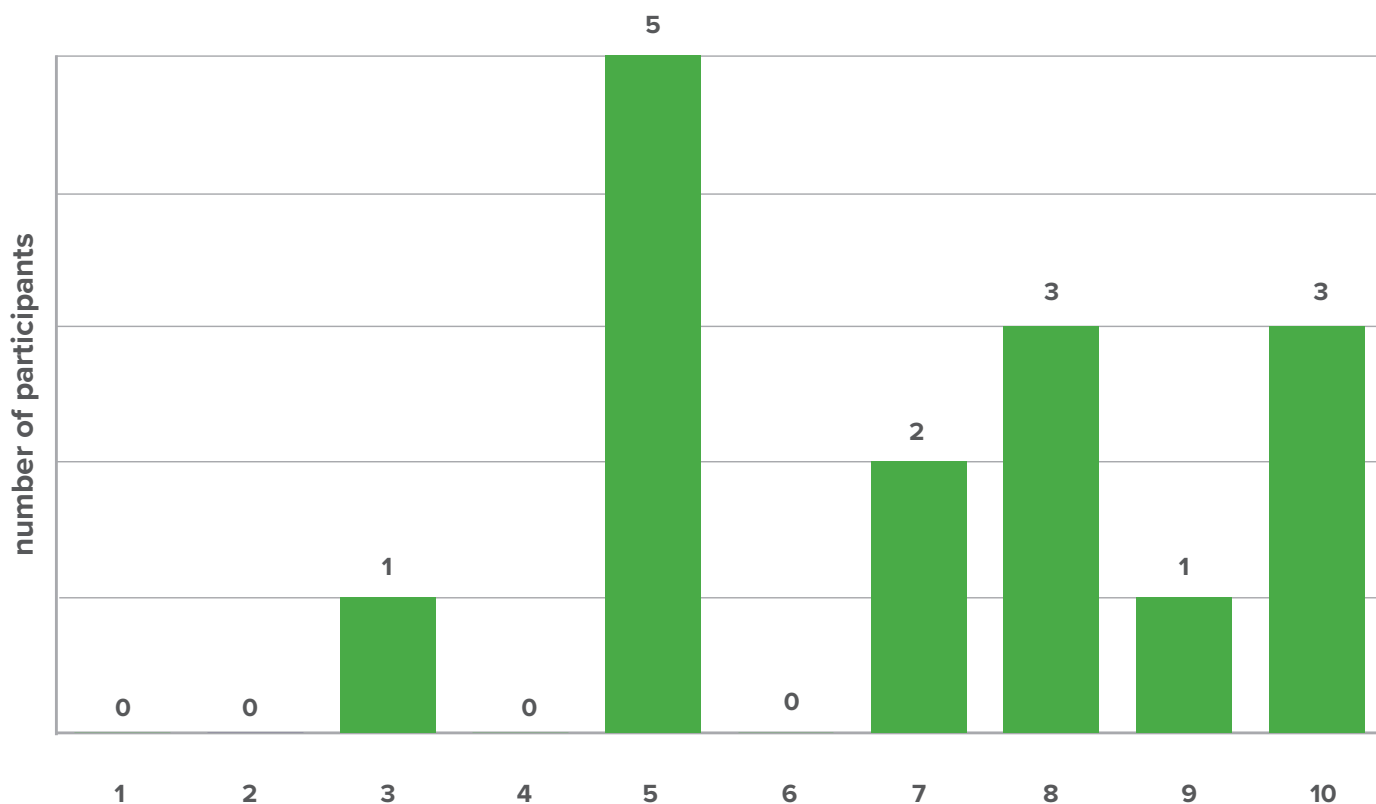
7. Are there SO1, SO2, and/or SO3 related data we did not present that you/your team use or intend to use?

The majority of respondents answered that there were data related to the three strategic objectives that was not presented in the workshops. Examples included drought measures, and soil water availability. Five respondents added that "national erosion, salinization, and desertification data" is available at the national level in Colombia and was not presented in the workshops. One of the respondents mentioned that these data are available at a finer cartographic scale than the data in Trends.Earth. Another participant noted that there are baseline data on land degradation in the country. Lastly, a respondent mentioned organic carbon stock data for Colombia. These responses point to the importance of future trainings incorporating local data.
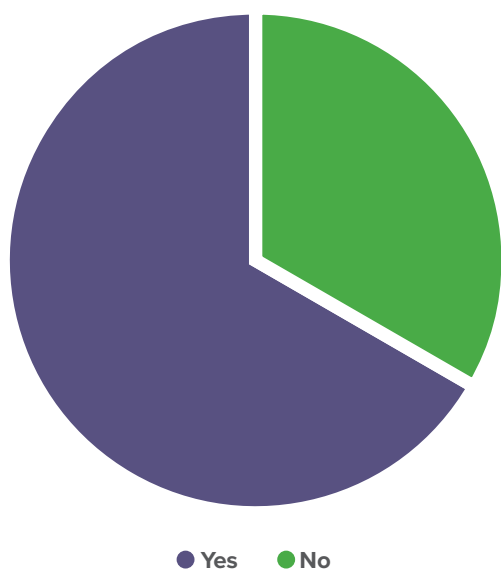
Focus Group

Total # of Participants: 12

Among the eight focus group participants who took part in our initial survey half knew what SO1 and SO3 were before the workshop and six knew of SO2. The remaining portion of this report presents qualitative focus group discussion data. The three open-ended questions probe the following questions:

1. What do you/your team need for optimal monitoring of SO1, SO2 and SO3?

2. If you could advise UNCCD on one thing that would improve monitoring of SO2 and SO3 in Colombia, what would it be?

3. Are there SO1, SO2 and SO3 related data we did not present that you/your team use? If so, which?

Initial Questions
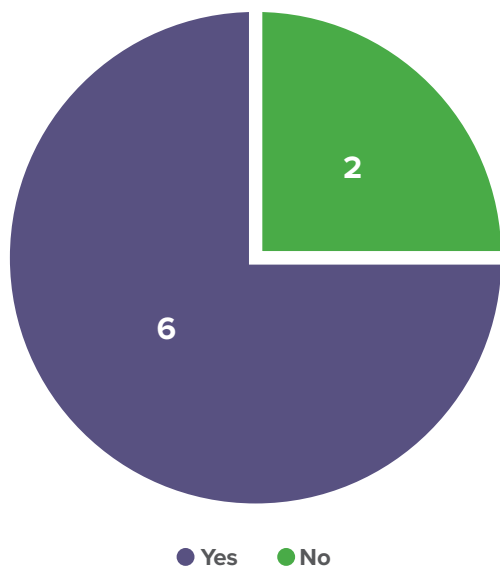
1. Did you know what SO1 was before this workshop?

Are there SO1, SO2, and/or SO3 related data we did not present that you/your team use or intend to use?

● Yes ● No

Did you know what SO1 was before this workshop?
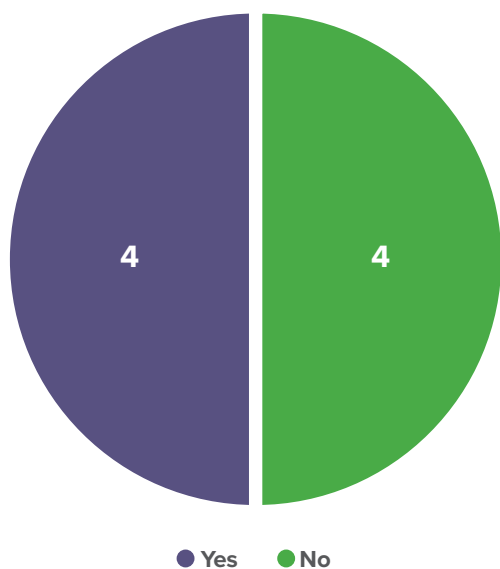

● Yes ● No
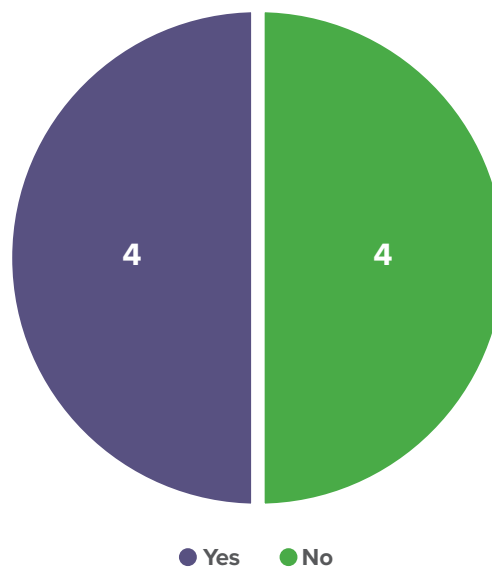
2. Did you know what SO2 was before this workshop?

Did you know what SO2 was before this workshop?

- Yes
- No

3. Did you know what SO3 was before this workshop?

Did you know what SO3 was before this workshop?

- Yes
- No

What do you/your team need for optimal monitoring of SO1, SO2 and SO3?

Towards optimal monitoring of the Strategic Objectives, one participant discussed the need for expanded support for trainings, stating that "Colombia has a lot of data on erosion, salinization, in addition to national scale trends in degradation" but that "It is key that we continue to know more in-depth about how the reporting is done, as well as how each country can improve their reporting". This participant noted that while multiple stakeholders are already represented at the table, not all have equal access to the same data and information. They concluded by stating that "The biggest issue is still financial support, but the topic of degradation tends to be slightly ignored in general".

A second participant noted that while there is sufficient data, for example, "to identify susceptible areas depending on vegetative cover, soil type, rainfall" there is a "disconnect with the group in charge of data management".

Another informant thinks that there should be "broad commitments beyond presenting the report". Specifically, they claim, "there is a need to implement actions which must be reflected, projected, and planned at the regional levels in all aspects, including economic and financial, even with scarce financial support". They continued that "combating land degradation cannot be explicit until all legal statutes are modified and put into more general terms" and that "the immense challenge is how to start with a national plan to combat desertification and drought". They also pointed out that "the topic of implementation is also huge". Lastly, this participant opined that SO1 is too broad and that "for SO2, we do not even know the affected populations sometimes, and it's a gigantic task to be able to achieve this". Finally, they note that there is an urgent need for SO3, but there are questions as to how implement SO3 in monitoring and evaluation at the country level.

Another participant stated that "we need to gauge the importance of land degradation and what it entails". For example, they explained, "to monitor land degradation, we need to have a structured approach, which we're failing at so far". They added that it is important to clarify institutional responsibility, technical capacity, and financial resources, including for training and data

acquisition. This participant added that "we also need to start by recognizing that there is a problem and monitor and improve the conditions of the land in the country". They identify the main causes of land degradation as agriculture, cattle raising, and mining. They continued that "there is a need for resources to understand not only *where* but also the recovery rates" and that "again, everything must start by acknowledging the problem by social institutions in a country, not just the ministry of environment in a country".

A participant without institutional affiliation who was a consultant working on the last country report prioritized the need for resources to focus on "coordinating through an office that would become the coordinator". They added that "the three conventions have the same level of importance but need a focal point/person with whom to coordinate and distribute resources (if they are available)". Beyond resources, this participant highlighted that "there are plenty of groups who can do the necessary research, but no effort yet to synthesize and coordinate all the knowledge areas being collected/created". They added that "the pandemic has made it obvious that there are a lot of communication gaps, that a responsible party should be chosen, and that it must involve more than just environmental institutions, such as Departments of Social and Economic Affairs". They concluded that "going about this in a comprehensive and interrelated fashion, we would be able to involve more resources and leverage them with proper management".

If you could advise UNCCD on one thing that would improve monitoring of SO2 and SO3 in Colombia, what would it be?

In terms of a priority to improve SO2 and SO3 monitoring in country, several recommendations were generated. For example, a participant suggests that the "big problem we have that is a part of climate change is land degradation" and that therefore, "a clear message for the UN and UNCCD is to give more importance to land degradation worldwide and have clarity on its importance, as well as its repercussions (food, water, survival are at stake)". They continued that "we need to help shift people's perception of land degradation, but Colombia has not been given the training, resources, or awareness on this issue that would help make it more central". Further, they contended that "a lot of what is done only stays on paper and does not translate into more resources to respective countries". A major priority, according to this informant, was to improve clarity and organization. For example, they noted that "there is a lot of delegation but complicated messaging on how to coordinate among these three conventions" and that there is "confusion regarding the neutrality fund and how it is going to mitigate climate change and biodiversity, as well as no clarity on land degradation". As a consequence, this participant concluded that "there is a need to be more organized and have more resources to support the requirements", and that "the three conventions need to be more concrete and better articulated".

Another informant noted the importance of having baselines that reflect reality on the ground. They point out, for example, that SO1 indicators reflect vegetation, productivity, and socio-economic systems with the intention to minimize land degradation by 2030 but that "if local data on these indicators do not exist, then using global data may mask the actual realities that exist in the country". They continued that "monitoring based on global data can hide important facets, so we need to use regional/national data for indicators that are already being evaluated and are more representative". In regard to matching scale across data, they noted that they try to link data from the National Planning Department and National Water Study "but some of the global and national data simply do not match". They concluded that "there needs to be a more uniform scale of the data" and wonder if there can be more flexibility in what parameters and indicators are used. They recommend that the "UN should look at what is being monitored. Does global data mask the reality of the country, or give us an approximation? Maybe we need to unify these concepts, or we need to suggest to the UN to discuss the same parameters".

A second participant prioritized the need for financing and points out that that the financial amount is "usually small for this convention compared to the one for climate change". This participant argued for "a multi-focal approach to not only focus on one convention as a time, but several while emphasizing that resources are scarce". They also highlighted the "need to improve the narrative and highlight synergies for both financing and data availability".

A third respondent supported the first two and added that "the convention would do well in terms of LDN, which has opened the topics of climate change and biodiversity as well". Despite the SO1 focus on land use/cover change, this respondent claimed that "activities such as deforestation are not directly included in a specific objective" and added that "a lot of resources go to climate change, so monitoring of LD is neglected, but we need to reduce the impact on vulnerable populations". The respondent concluded that ''the convention needs to better highlight the importance of soil, which affects biodiversity, forests, etc." They consider soil as an ''invisible and often ignored critical resource'' and argue for the need for ''better messaging on this''.

Are there SO1, SO2 and SO3 related data we did not present that you/your team use? If so, which?

In response to whether or not there was SO1, SO2, or SO3 related data not presented used by the participants, there were several affirmative responses. One participant noted, for example, that "for SO1, including erosion, salinization, and desertification; baselines exist for the former two that can be monitored and involve real data". They surmised that "we need to continue to monitor and follow up on them because they show land degradation better at the national level". This participant thinks that Colombia is sufficiently prepared to have training that can be reproduced for other countries.

A second participant pointed out the importance of distinguishing pattern from process. They noted that the "Convention provides guidelines that reduce the scope of the ecosystems to coverage, but to them, coverage and ecosystem is not the same". They added that the sub-types of a forest are important (e.g., tropic, rainforest, deciduous, shrubbery), but are all different and therefore argue for more detailed indicators and to make sure that at the ecosystem level there is a difference in data and monitoring between natural and transformed ecosystems.

Another participant asserted that "the challenge is to generate data, indicators, and proxies for these indicators that truly reflect the reality of each country and that results in some data that must go beyond the report". They added that "we can have a lot of methods and information for these reports, but they should reflect the reality and allow for individual countries to make decisions and provide the most useful data to decision makers". This participant questioned how we can reach neutrality but points out that "everyone is responsible for generating this information so that the science can be brought to the decision-makers". They also questioned how end users "integrate to go beyond the report and do something useful and representative of the realities of each country? In other words, how do we combine national results with land coverage and some of the other indicators?" They concluded that water often gets ignored when talking about degradation and land management, and that it is not only a result of climate change but rather "it's a mix among vegetation, land cover, soil degradation, and water degradation".

2. RECOMMENDATIONS ON ASSISTING MEMBER NATIONS IN INTEGRATED MONITORING PROGRESS TOWARDS SO1, SO2, AND SO3 FOR UNCCD AND TRENDS.EARTH

This report summarizes findings from workshops in Colombia as a pilot country to identify priority datasets, variables, and indices for monitoring **Desertification, Land Degradation, and Drought (DLDD)** in the context of SO1, SO2, and SO3 and their expected impacts.

This report summarizes findings from workshops in Colombia as a pilot country to identify priority datasets, variables, and indices for monitoring Desertification, Land Degradation, and Drought (DLDD) in the context of SO1, SO2, and SO3 and their expected impacts. The objective of this report was to develop a case study testing the usefulness of the datasets and approaches suggested to monitor progress towards SO1, SO2 and SO3 completed for the pilot country, Colombia.

We addressed the objective of this report through a semi-structured questionnaire and focus group instruments to collect data from a target population of over forty Colombian experts who are involved in monitoring and evaluation of UNCCD strategic objectives. We collected information on prior knowledge of Trends.Earth and of the UNCCD strategic objectives and on priority needs for improving UNCCD-related monitoring and reporting. The ten-question questionnaire captures categorical and Likert scale data and permitted open-ended explanations. The focus groups are open-ended with the aim of collecting qualitative data generated by the participants.

In the area of prior knowledge and use, given that ten of the 15 respondents had knowledge of SO1, SO2 and SO3 before our workshops, a latent demand for training to improve monitoring and evaluation is apparent. Since only a quarter of participants had experience using Trends.Earth, training workshops featuring this tool in future workshops are recommended. Relative to capacity and needs, more financial resources were listed as the primary necessity for optimal monitoring of SO1, SO2, and SO3 followed by more trainings and workshops. Better data access and better user interface tools rounded out the first round of priorities among the respondents. Following this feedback, more financial investments in trainings are recommended in order to build local capacity and to improve data access. Further, advocating for a standardized set of indicators to be collected globally with data producers could yield useful outcomes. There was overall a high understanding of the three strategic objectives, suggesting that knowledge dissemination may not need to be a high priority. On the contrary, data access was considered mediocre by most participants, implying again the need for improving and increasing trainings at the country and local levels as well

as advocating for improved data at national and global levels. Findings also suggest that future trainings should have as one of their foci creating indicators from existing data. One improvement in future workshops could be for workshop developers to have a better understanding of local measures for monitoring the Strategic Objectives that are not part of global data.

Focus group data corroborated and enriched questionnaire results. Towards optimal monitoring of the Strategic Objectives, the need for expanded support for more trainings that emerge from the questionnaire was echoed by several respondents in the focus groups. The theme of equity in data access was also raised suggesting the importance of investing time in ensuring that all pertinent actors are invited to future workshops. Focus groups results also echoed survey responses in noting that more could be done to ensure that country reports are used for policy. Similarly, results revealed a desire for data collected and analyzed to go beyond reports and to be applied on the ground among land users. Perhaps holding joint meetings between authors of the country reports, local land users, and policy makers would be a

positive step in this direction. Focus group results also indicate the need for the UNCCD to more closely link climate change to LDN and to disseminate the message of the importance of climate in LDN. Perhaps climate change aspects of LDN could become part of the LDN framework explicitly in future reporting. Improved messaging on the importance of soil and water in LDN was also raised as recommendation for improved LDN monitoring and evaluation. Another focus group result showed concern for global data masking local processes and patterns important to LDN. This again suggests the need for future trainings to incorporate local data and for the advocacy of improved and standardized data at national and global scales. As one participant notes "the challenge is to generate data, indicators, and proxies for these indicators that truly reflect the reality of each country". Future workshops could usefully build on lessons learned from this workshop in the pilot country of Colombia with the aim of enhancing country Parties' Desertification, Land Degradation, and Drought (DLDD) monitoring and evaluation, and replicating the survey with a larger sample size.

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Appendix

Taller de Tools4LDN sobre la integración de los objetivos SO1, SO2, y SO3 con Trends.Earth

Tools4LDN Workshop on integrating SO1, SO2 and SO3 indicators into Trends.Earth

Sondeo
Questionnaire

Anotar: nombre, título, afiliación, y correo electrónico
Record: Attendee name, title, affiliation, and email

Conocimiento Prévio y Uso
Prior Knowledge and Use

¿Ud. Conoció los objetivos S01, SO2 y SO3 antes de los talleres?
Did you know what S01, SO2 and SO3 were before these workshops?

    1 si/*yes*

    2 no

    3 explique/*explain*_____

¿Ud. Conoció Trends.Earth antes de los talleres?
Did you know what Trends.Earth was before this workshop?

    1 si/*yes*

    2 no

    3 explique/*explain*_____

¿Ud. Había usado Trends.Earth antes de los talleres?
Had you used Trends.Earth before this workshop?

    1 si/*yes*

    2 no

    3 explique/*explain*_____

Capacidad y Necesidades
Capacity and Needs

Ponga en órden las necesidades más importantes para Ud./su equipo para el monitore óptimo de los objetivos éstrategicos SO1, SO2, y SO3
Rank in order what your/your team's greatest needs for optimal monitoring of SO1, SO2, and SO3

    Mejor acceso a los datos/*Better data access*

    Mejores herramientas de software/B*etter user interface tools*

    Más talleres/capacitación/*More training/capacity building*

    Más recursos financieros/*More financial resources*

    Otro, explique/*Other, explain*_____

En una escala de 1-10, 1 siendo terrible y 10 siendo óptimo, ¿cómo evaluaría Ud. su comprensión de los objetivos éstrategicos SO1, SO2, y SO3?
On a scale of 1-10, 1 being terrible and 10 being optimal, how would you rate your understanding of SO1, SO2, and SO3?

    Explique/*explain*_____

En una escala de 1-10, 1 siendo terrible y 10 siendo óptimo, ¿cómo evaluaría Ud. su comprensión del acceso a datos para los SO1, SO2, y SO3?
On a scale of 1-10, 1 being terrible and 10 being optimal, how would you rate your understanding of data access for SO1, SO2, and SO3?

    Explique/*explain*_____

En una escala de 1-10, 1 siendo terrible y 10 siendo óptimo, ¿cómo evaluaría Ud. su comprensión de cómo crear indicadores para los SO1, SO2, y SO3?
On a scale of 1-10, 1 being terrible and 10 being optimal, how would you rate your understanding of creating indicators from existing data for SO1, SO2, and SO3?

    Explique/*explain*_____

En una escala de 1-10, 1 siendo terrible y 10 siendo óptimo, ¿cómo evaluaría Ud. su comprensión del Tools. Earth para el monitoreo a los SO1, SO2, y SO3?
On a scale of 1-10, 1 being terrible and 10 being optimal, how would you rate your understanding of Tools.Earth for monitoring SO1, SO2, and SO3?

Explique/*explain*_____

En una escala de 1-10, 1 siendo terrible y 10 siendo óptimo, ¿cómo evaluaría Ud. los talleres para el monitoreo a los SO1, SO2, y SO3?
On a scale of 1-10, 1 being terrible and 10 being optimal, how would you rate the workshops on Tools.Earth for monitoring SO1, SO2, and SO3?

Explique/*explain*_____

¿Hay datos asociados con los SO1, SO2, y/o SO3 que no presentamos que Ud./su equipo utiliza/n o tiene/n intención de utilizar?
Are there SO1, SO2, and/or SO3 related data we did not present that you/your team use or intend to use?

1 yes

2 no

Explique/*explain*_____

Tools4LDN Workshop on integrating SO2 and SO3 indicators into Trends.Earth

Focus Group Questions

UCSB Team Record: Attendee names, titles, and affiliation

How many of you were knew what S01, SO2 and SO3 were before these workshops?

How many of you were knew of Trends.Earth before this workshop?

How many of you used Trends.Earth before this workshop?

What do you/your team need for optimal monitoring of SO2 and SO3?

Prompts:

Better data access

Better user interface tools

More capacity building

More financial resources

If you could advise UNCCD on one thing that would improve monitoring of SO2 and SO3 in Colombia, what would it be?

Prompts:

Better data access

Better user interface tools

More capacity building

More financial resources

Are there SO2 and SO3 related data we did not present that you/your team use? If so, which?

Questions/Comments?