



12th meeting of the UNCCD Science-Policy Interface (SPI)

Date: 4 - 6 November 2020
Venue: Virtual meeting

Working languages: English
Working hours: Wednesday, 4 November: 14:30 – 17:30 (CET)
Thursday, 5 November: 14:30 – 17:30 (CET)
Friday, 6 November: 14:30 – 17:30 (CET)

- REPORT -

I. Welcome address

The Deputy Executive Secretary of the United Nations Convention to Combat Desertification (UNCCD), Ms. Tina Birmpili, welcomed all participants (see Annex 1) to the 12th meeting of the UNCCD Science-Policy Interface (SPI). She emphasized the importance of the SPI to the UNCCD and the essentiality of translating science into policy-oriented and actionable recommendations resulting from the assessment and synthesis of current science that can be carried out by Parties, partners and different stakeholders.

After the welcome address, SPI co-Chairs, SPI Rapporteur and SPI objective 1 and 2 co-Leads were introduced in Plenary and a group photo of all SPI members present at the 12th SPI meeting was taken. The 3-day virtual SPI meeting was supported by Mr Michael Tighe, an expert in the facilitation of virtual meetings.

II. Adoption of the agenda and organisation of work

The agenda was adopted without any changes (see Annex 2).

III. SPI Work Programme 2020-2021: Status SPI work and milestones – Plenary

The plenary of the meeting was chaired by Mr. Bongani Simon Masuku, Chair of the Committee of Science and Technology (CST) and co-Chair of the SPI. He applauded the SPI members and the Secretariat for the ongoing work and ensuring that the SPI work programme was on track in spite of the unexpected and enormous challenges caused by the COVID-19 pandemic. The Chair then gave the floor to SPI co-Leads of objectives 1 and 2 to introduce progress made and outline expected outputs of the working sessions. This was followed by brief presentation by the secretariat on the work associated with SPI coordination activities. (For ease of reference, all presentations are available to SPI members and observers on the SPI Extranet¹).

SPI Objective 1 plenary presentation:

The SPI objective 1 co-Lead, Xiangzheng Deng, presented the status, progress made and way forward for the preparation of expected deliverables of the SPI objective 1 for the SPI work programme 2020–

¹ Meeting documents and all presentations made at the 12th meeting of the Science-Policy Interface (SPI) can be accessed by SPI members and observers by clicking [here](#).



2021 (Decision 18/COP.14²). It was emphasized that integrated land use planning (ILUP) and integrated landscape management (ILM) can potentially contribute to positive transformative change in the context of LDN, including examples of cases where these approaches have been applied. Two consultants supporting the work of SPI objective 1 were introduced namely, Katharina Schulze, who will produce the typology of the tools; and Stefanie Herrmann who will shape the illustrative themes and contextualize the overall report. Following this, the vision for the collaborative work and proposed next steps which include technical report's key milestones were presented. The expected outcomes of the working sessions were introduced to the SPI members as follows: (i) Enhanced and finalized annotated outline for objective 1; (ii) Preliminary ideas on potential policy proposals; (iii) Modalities of work to help ensure efficiency in the work of consultants and contribution from SPI members; (iv) Internal milestones for the consultants; and (v) Title of the technical report and next steps. Following this, the agenda and working groups sessions were introduced to the participants.

SPI Objective 2 plenary presentation:

The SPI objective 2 co-Leads, Mark Svoboda and Caroline King jointly presented the status/progress, outputs, timelines and milestones for the next steps, as well as a plan to synergize with IWG, IPCC and IDMP and other processes. The co-Leads introduced the joint team of SPI working group and the consultants from UNIQUE Forestry and Land GmbH led by Ms Anke Reichhuber supported by four experts on socio-economic, ecosystems, land/ water management, and technical guideline and their responsibilities. Furthermore, the outline of the technical report under development and emerging themes to be considered in each chapter were introduced. This included: (i) Justification for the approach, including a conceptual framework on relations of hazards, exposure, risk, vulnerability and resilience, and effects of climate change land management, food, water security and social safety net (ii) An inventory and analysis which will cover scope of natural, managed ecosystems and socio-economics systems across rural and urban areas and related indicators, at community, sub-national and national level; (iii) Technical guidelines which will include tiered approaches and decision trees to guide the choice of approaches and indicators at different scales and (iv) Policy proposals focused on gaps identified and advising on how drought resilience monitoring and assessment can be incorporated into national drought plans. The presentation also proposed methodologies for the scientific assessment (expert group meeting, literature review, online survey, cases studies from regions, especially the application of gender-responsive research analysis) and the framework of the draft annotated outline to be discussed in the working session.

Presentation on coordination activities:

The secretariat (Barron Joseph Orr) presented¹ the milestones achieved thus far and status of the coordination activities of the SPI with other intergovernmental bodies and panels (see Annex 3), including the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), Intergovernmental Panel on Climate Change (IPCC), Intergovernmental Technical Panel on Soils (ITPS), UNEP's International Resource Panel (IRP), the Global Land Indicators Initiative (GLII), the Integrated Drought Management Programme (IDMP) and the second edition of the UNCCD's Global Land Outlook (GLO2).

Due to these special circumstances during the current COVID-19 pandemic, the secretariat informed all participants that working sessions for the coordination activities would not be included in this 3-day virtual SPI meeting, but rather be addressed in a series of individual working sessions planned for later in 2020, where current and upcoming work will be further discussed in detail. The secretariat mentioned that it has already initiated the planning for these working sessions and is in communication with the SPI co-Leads and advisors from observer organizations guiding the work on each respective

² Work programme of the SPI for the biennium 2020–2021. For Decision 18/COP.14, click [here](#).



coordination activity. The time and dates for these working sessions will be duly communicated. More detail on the roles and functions of SPI members is available in the SPI Extranet.³

IPBES:

The presentation provided an overview of the contributions made by the SPI to this coordination activity, which is being co-led by Nichole Barger and Graham Paul von Maltitz. These included:

- i. Review of the “Draft scoping report on assessing the interlinkages among biodiversity, climate, water, food, energy and health (nexus assessment)”;
- ii. Review of the “Draft scoping report on assessing the underlying causes of biodiversity loss and the determinants of transformative change (thematic assessment) to achieve the 2050 Vision for Biodiversity” (transformative change assessment);
- iii. Review of the IPBES Draft Workshop Report on Biodiversity and Pandemics.

The review on (i) and (ii) include identification of potential entry points where the nexus assessment could be readily leveraged by UNCCD policymakers and included a brief report from SPI co-Chair Bongani Masuku who described his presentation to the 15th Meetings of the IPBES Multidisciplinary Expert Panel and IPBES Bureau in September 2020. The SPI co-Chair described his effort to draw to the attention of the MEP and Bureau the need to consider ecological connectivity in the scoping of these two assessments, as per decision IPBES-7/1 para 8(a), which requests that the role of connectivity in ensuring integrity and resilience in socioecological systems be considered in IPBES assessments. It was noted that this is relevant to work initiated by the previous CST Bureau and will contribute to UNCCD efforts to promote synergies in the development of the post-2020 biodiversity monitoring framework, the intention to include “restoration connectivity” in GLO2, while also contributing to the work of SPI Objective 1 on integrated land use planning. Regarding the review of item (iii), the SPI was informed that its co-Chair, Nichole Barger attended the IPBES workshop on biodiversity and pandemics as a resource person representing the UNCCD. She encouraged the incorporation of the LDN response hierarchy of avoid > reduce > reverse in the outcome report and proposed an exchange of what is learned about land use planning in pandemic risk prevention between this IPBES work & SPI Objective 1.

IPCC:

It was reported that all the SPI members were involved in the review process of the first order of the IPCC special report on Land and Climate Change as well as the Sixth Assessment Report (AR6) where SPI will review work compiled by the IPCC Working Group II (WGII) and Working Group III (WGIII). This work is being co-led by Nijavalli Ravindranath and Graham von Maltitz. The first working session for the IPCC coordination activity was held on the 25 September 2020, where an approach to analysing the IPCC Special Report on Climate Change and Land (SRCCCL) for the development of policy proposals relevant to the UNCCD for presentation at the CST15/COP15 was agreed. The secretariat and SPI co-Chair presented progress since the September working sessions and provided a timeline of upcoming reviews of the IPCC Sixth Assessment Report, particularly Working Group II and Group III. It was highlighted that the near-term schedule includes the following scientific reviews:

- i. 4 December 2020 - 29 January 2021: Expert and Government Review of Second Order Draft;
- ii. 28 May 2021 - 23 July 2021: Final Draft and Government Review of the Summary for Policymakers; and
- iii. 18 January 2021 - 14 March 2021: Expert and Government Review of the SOD and the FOD of the Summary for Policymakers (SPM).

³ Roles and functions of the SPI can accessed by SPI members and observers [here](#).



ITPS:

Following up on the decision 16/COP.14, and in collaboration with the Global Soil Partnership (GSP), ITPS and FAO, the SPI, in work co-led by led by Rattan Lal and Marijana Kapovic Solomun, contributed to the review of three reports focussing on the management of soil organic carbon (SOC), including:

- i. Technical Specifications for the preparation of the Global Soil Organic Carbon Sequestration Potential Map (GSOCsequ).
- ii. GSOC MRV Protocol: A protocol for measurement, monitoring, reporting and verification of soil organic carbon in agricultural landscapes” to assess Soil Organic Carbon Sequestration and Green House Emissions in Agricultural Landscape.⁴
- iii. Manual of Good SOC Practices (currently in progress and is planned to be completed end of November 2020). Current SPI members, as well as former SPI members involved in the Objective 1.1 from the SPI work programme 2018-2019, have contributed to the review of this ~1000-page document coordinated by the GSP secretariat, which began in July 2020.

GLII:

The secretariat shared information that it has recently initiated a consultancy focused on bridging existing SDG indicators on land tenure and gender and the UNCCD reporting process. In addition, it was agreed that the secretariat (Barron Joseph Orr) and SPI members (Everlyne Nairesiae from UN-Habitat and GLII) will explore the synergies between how each organization is responding to COVID-19, noting that LDN represents a framework that could be vitally important for the planning necessary to prevent land use change as well as the planning necessary to build resilience in local and regional systems to help the world build back better. Both agreed to explore this within their respective organizations and to work towards building the rural-urban dynamics into an application theme for SPI objective 1 technical report. The GLII coordination activities are being co-led by Peter Verburg and Xiangzheng Deng.

IDMP:

The presentation gave an overview on the IDMP coordination activities, which are being co-led by Sergio Vicente-Serrano and Ana Vukovic. The SPI observer Robert Stefanski from WMO leads the development of two publications on integrated drought management and on drought and water scarcity further noted that the drafts of these two publications have been reviewed by SPI members in objective 2 in November 2020.

UNEP-IRP:

The presentation introduced the SPI and IRP coordination activities, which are being co-led by Nichole Barger and Armando López Santos. The SPI and IRP coordination activities will focus on SPI reviewing 4 topics of the IRP work programme, mainly scheduled in the year of 2021: (i) Assessments on environmental Conflicts and Migration; (ii) Assessment on Leveraging Resources for Low Carbon, Climate Resilient development; (iii) Think piece: Resource Governance transition in systems of production and consumption; and (iv) Potential involving SPI members having the capacity in review report on Mineral Resources Governance. Led by Nichole Barger, the SPI participated in the global consultation meeting held on 24 September on mineral governance. It was noted that the secretariat still needs to follow up with IRP on the proposed reviews to take place in 2021. In addition, IRP co-Chair Janez Potočnik and Expert Panel Member Jeff Herrick participated in the UNCCD Desertification and Drought Day celebration and have shared a video with the UNCCD communications team. The UNEP-IRP Report on building resilient societies after COVID-19

⁴ The GSOC MRV Protocol was published in September 2020: <http://www.fao.org/global-soil-partnership/resources/highlights/detail/en/c/1308261/>



Pandemic–key messages from IRP was shared with the communication team, data and findings were quoted by the communication team on DDD, especially data and information relevant to production and consumption patterns, which are also relevant to the theme of the 2020 Desertification and Drought Day.

GLO2:

The SPI was informed that Co-leads Nichole Barger, Ermias Betemariam and Graham von Maltitz attended the 1st virtual steering committee meeting of the 2nd edition of the GLO. The purpose of the meeting was to seek feedback and consensus on the storyline and key elements of GLO2 with the view of turning the GLO2 concept note into a production plan and terms of reference. It was recalled that the next meeting of the GLO2 steering committee is scheduled for 25 November 2020 and will feature presentations by the working paper authors on their key findings. All seven papers (youth, gender, tenure, urban-rural, food systems, perverse incentives, and Covid-19) are in the final stages of production. A potential eighth working paper is being considered which would focus on the restoration of ecological connectivity.

The upcoming work for the SPI coordination activities within the next 3 months:

- i. December 2020: IPCC Working Group II, Sixth Assessment Report: Expert and Government Review of Second Order Draft, 04 December 2020 – 29 January 2021.
- ii. January 2021: IPCC Working Group III, Sixth Assessment Report: Expert and Government Review of the SOD and the FOD of the Summary for Policymakers (SPM), 18 January 2021 – 14 March 2021.
- iii. February 2021: ITPS - Co-organization of the Global Symposium on Soil Biodiversity – Rome, 02 – 04 February 2021; and GLO2 - 1st Draft for Internal Review (Steering Committee and Partners) (Dates to be determined).

IV. Working sessions of the SPI objectives 1 and 2 - Parallel break-out groups

SPI meeting participants split into Objective 1 and Objective 2 working groups to discuss the deliverables of the SPI Work Programme for the biennium 2020–2021. The virtual meeting expert guided the SPI members to break-out groups.

Objective 1

Deliverables: A technical report providing science-based evidence of how, in the context of working to achieve or exceed LDN, integrated land use planning and integrated landscape management can contribute to positive transformative change, including examples of cases where these approaches have been applied. These examples will be drawn from illustrative themes of direct relevance to UNCCD policymakers, including (1) building back better in the COVID-19 era, (2) sand and dust storms source mitigation, (3) the food, energy and nature trilemma, (4) strengthening urban-rural socio-ecological systems, and (5) increasing drought resilience. Guidance to support policymakers and managers will be provided in the form of decision trees that employ a tiered approach tailored to different capacities and needs at different planning scales, and which encourages linkages between urban and rural planning. A second deliverable is a demonstration, resulting from an open call, of how LDN can be incorporated into existing open source land use planning and trade-off analysis tools. The open call is being conducted in the form of a global competition for software development under the Group on Earth Observations (GEO) LDN Initiative.



SPI working group (Annex 1): The three co-leads are Peter Verburg, Xiangzheng Deng and Ermias Betemariam. Objective 1 working group members include Nichole Barger, Marijana Kapovic Solomun, Rattan Lal, André Francisco Pilon, Graham Paul von Maltitz, Zahurul Karim, Noel Oettlé, Bongani Simon Masuku, Ratko Ristic, and Anna Luise; Advisors from international organizations include Vera Boerger (FAO) and Everlyne Nairesiae (UN-Habitat).

Supporting consultants: Two consultants were hired to support the SPI in October 2020 in the development of the technical report: (1) Katharina Schulze will analytically assess the range of integrated land use planning and integrated landscape management tools and approaches employed in countries in order to generate a typology of these and to contribute to guidance being developed to help governments and other stakeholders; (2) Stefanie Herrmann will develop and communicate to the public illustrative case studies from around the world on five themes where integrated land use planning/integrated landscape management can be applied to achieve multiple economic, social and environmental benefits in the context of achieving LDN and she will contextualize the overall report.

Summary of the SPI Objective 1 working session: This working group session was co-chaired by Nichole Barger and Ermias Betemariam. Over the three days, the working group completed an annotated outline of the technical report, which will include a globally and technically comprehensive typology of land use planning and landscape management tools and methodologies, with an emphasis on optimization, trade-offs and synergies. Members agreed on the structure and evaluation criteria that will be used to shape the typology. They determined the most vulnerable to non-inclusive land use planning that will be considered in the report from start to finish (e.g., women, youth, indigenous peoples), and that both urban and rural landscapes must be considered. UNCCD-relevant cases drawn from around the world will be incorporated to illustrate how these tools and approaches can be used to optimize land use and land management decisions, accelerating transformative change and the achievement of all SDGs. Regarding the demonstration, it was indicated that the SPI is collaborating with the Group on Earth Observation Land Degradation Neutrality (GEO-LDN) Initiative to pursue this work through an international technology innovation competition to design and build software analytics solutions to support more transparent and well-informed land use decisions at the local to national level across the globe.⁵

Report of the SPI objective 1 working sessions

Stefanie Herrmann presented the preliminary outline of the technical report, including comments received and considerations of the consultants, explaining its possible reorganization. The SPI discussed and took the work further to produce a fully annotated outline of the technical report. The main changes introduced were the division of the entire outline into three parts, including a new third part presenting the conclusions of the report through “Lessons Learned” and “Science-Policy Proposals”, followed by three annexes with examples and additional information. It was noted that the structure agreed upon is flexible enough to accept future changes, especially regarding the position of chapters and their titles.

After the discussion on the general structure of the report, Stefanie Herrmann and Katharina Schulze, presented the preliminary chapters according to the outline and the SPI members discussed each of them in more detail. It was unanimously agreed that the substantive core of the report will be a globally and technically comprehensive evaluation of land use planning and landscape management tools, approaches and methodologies to support LDN in integrated land use planning (ILUP) and integrated landscape management (ILM). It was further agreed that the technical side of the report will consider optimization, trade-offs and synergies.

⁵ The GEO LDN Competition: <https://www.geo-ldn.org/competition-overview>



After a discussion on a number of different means that could be employed in the technical report to guide policymakers, it was decided that a set of decision trees would be most appropriate and effective for guiding users in the selection of appropriate ILUP/ILM tools. Ideally these decision trees, supported by explanatory diagrams, should be designed to visually show, through a logical process, how the lack of implementation of an element becomes a barrier that impedes one or more key aspects of effective ILUP/ILM, with special emphasis on scenario generation to help users navigate trade-offs and the capacity to map anticipate gains and losses to calculate no net loss. The group also decided that the decision tree should be understood as a dynamic product that will adapt with the typologies, during the course of work, and if this proves effective, an approach to make an interactive product for the UNCCD website will be developed. To frame the analysis of tools, the report will also consider different typology of planning systems, key principles, values and major cross-cutting issues confronting the various decision-making contexts.

It was agreed that the technical report will focus on covering knowledge gaps and unrepresented tools in ILUP, with the aim to support Parties practically in taking action against land degradation and achieve transformative change. In this respect, it was decided to use broad (and widely accepted) definitions of terms and, taking into account previous and ongoing related efforts in parallel processes.

The working group determined the most vulnerable to non-inclusive land use planning that will be considered in the report from start to finish (e.g., women, youth, indigenous peoples), and that both urban and rural landscapes must be considered. A dedicated sub-group was established to guide how to reflect gender throughout the technical report. The sub-group members were designated as follows: (1) Nichole Barger (SPI co-Chair), (2) Marijana Kapovic Solomun (SPI Objective 1 - Member), (3) Everlyne Nairesiae (SPI Objective 1 - Advisor), (4) Corinna Voigt (UNCCD Secretariat), (5) Enni Kallio (UNCCD Secretariat), (6) Stefanie Herrmann (Consultant), and (7) Katharina Schulze (Consultant). This newly established team was added as a fifth team on top of four original working teams identified in the last working group meeting for this SPI objective, each with different responsibilities for delivering the document.⁶

During the third day of the 12th SPI meeting, the participants in the working session on Objective 1 were split into two groups (team 1 and team 2) for advancing specific elements of the technical report. Team 1 discussed and agreed on 15 criteria⁷ and related evaluation questions to assess tools and approaches. The working group recommended, where possible, to cluster the tools into groups. The assessment can thus be conducted by applying the criteria to sets of tools instead of each individual tool. General agreement was reached on considering aspects of both rural and urban planning and their relations, including urban landscape management, in assessing the tools. It was decided that considerations of biodiversity sensitivity, socio-economical aspects, and linkages between grassroots and higher decision-making levels are strongly needed.

Team 2 discussed illustrative case studies to be included in the technical report, to exemplify the analysis of methodologies, tools and approaches for integrating LDN in the land use planning and land management processes. The team discussed the modalities and criteria to apply to choose the examples and agreed on a non-exhaustive list of issues that will be covered, such as: (i) sand and dust storms source mitigation; (ii) food, energy and nature trilemma; (iii) strengthening urban-rural socio-ecological systems; (iv) increasing drought resilience; and (v) building back better in the COVID-19

⁶ Summary of Objective 1 Working Group Meeting (23 September 2020), click [here](#).

⁷ SPI Objective 1 technical report: For the 15 criteria and related evaluation questions to assess tools and approaches, click [here](#).



era. Co-lead Xiangzheng Deng shared a case in China, a country which has had many of the principles and approaches of LDN embedded into land use planning for over two decades. He offered to begin work on shaping this case so that it can be included in the technical report.

It was agreed that the illustrative case studies will be collected and narrated in a comprehensive manner in a final Chapter or Annex to the Technical Report, while break-out boxes with brief points relating to examples might be incorporated into the report where most appropriate. The team decided to proceed by outlining a draft first example before proceeding with the selection of the next ones.

Objective 2

Deliverables: A technical report which will provide science-based guidance on “Multiscale Approaches for Assessment and Monitoring-the Resilience of Vulnerable Populations and Ecosystems to Drought”, incorporating explicit recognition of the effects of gender differentiation, and climate change, with a view to elucidating the contributions of sustainable land management. Rural-urban connections and relations between health and drought resilience are also to be included. The technical report will frame the relations between drought hazard, exposure, vulnerability and resilience, and introduce tiered approaches tailored to different capacities and needs at different scales (community, subnational and national) to monitor and assess drought resiliency in both physical and social-economic aspects to support informative drought risk mitigation decision making. Decision trees will guide the choice of the Parties in the selection of different approaches. It was noted that this was confirmed in the 11th SPI meeting in February 2020.⁸

SPI working group (Annex 1): The three co-leads are Mark Svoboda, Armando López Santos, and Caroline King-Okumu. The Objective 2 working group members include Ana Vukovic, Nijavalli Ravindranath, Sergio Vicente-Serrano, Karma Dema Dorji, and Pablo Viegas who were joined in this meeting by Masuku Bongani and Rattan Lal. Advisors from international organizations include Robert Stefanski (WMO), Katrin Ehlert (WMO), Adam Fysh (UNDRR), and Ronald Vargas (FAO).

Supporting consultant team: Through UN procurement, UNIQUE forestry and -land use GmbH was selected from a shortlist of 4 candidates and was contracted for an institution-based consultancy service. The consultant team includes five members: (1) Anke Reichhübner, lead consultant, is responsible for overall farming, coordinating ecosystems and population resilience, and policy recommendations; (2) Bunafsha Mislimshoeva focusing on the ecosystem resilience; (3) Lisa Schipper focusing on social resilience; (4) Alisher Mirzabaev focusing on land degradation, climate change and the water, energy and food nexus; and (5) Renuka Srinivasan who will be responsible for the development of the technical guidance and decision trees.

Report of the SPI Objective 2 working sessions

The working session was chaired by co-Lead Mark Svoboda. The consultant team led by Anke Reichhübner was introduced to the SPI working group. The participants including SPI members and consultant team along with secretariat staff jointly revisited the concept note, consultancy TORs, deliverables, outcomes of the last working group meeting in September 2020 and comments related to emerging themes to be considered by the report. The group reviewed and refined the annotated outline by chapters. It reaffirmed the title, focus and structure of the technical report, which will be kept without changes. The discussion on the refinement on the annotated outline are as follows:

⁸ Concept note on objective 2, click [here](#).



On conceptual framework and justification, the working group agreed that links should be further established between resilience (ecosystem and population) and the IPCC conceptual framework on hazards, exposure, risk and vulnerability, including considering the effects of gender differentiation, climate change, and sustainable land management. It was noted that it is essential to consider time for recovery in the definition of resilience, as majority of drought impacts are not permanent, and therefore these definitions will consider “time for recovery”.

On concept and definitions, the working group agreed that the report should include globally accepted definitions. The group agreed to consider different types of drought and their implications on decision-making relevant to land, water and socio-economic development. An introduction of the concept “Green water⁹” is proposed to be used in discussion on drought resilience. The working group requested the consultant team to look at the list of literature listed in the Objective 2 TORs¹⁰ for various definitions on resilience, drought, and others which are globally accepted by all the parties. The literature listed by this working group includes the Glossary of the Synthesis Report of the IPCC Fifth Assessment Report (AR5)¹¹ and the Open-ended Intergovernmental Expert Working Group on Indicators and Terminology Relating to Disaster Risk Reduction endorsed in United Nations General Assembly Resolution A/RES/71/276¹².

On technical guidance, the working group further clarified that the monitoring and assessment approaches considered in the technical report will be i) multiple scaled covering national, subnational (river basin, watershed, or city) and community/local (village/ district/ cluster of villages) across rural and urban areas; ii) action oriented to enable data and information obtaining to support informative decision-making to improve resilience to drought from both vulnerable ecosystems and socio-economic dimensions; iii) tiered and tailored to different capacities, needs and data availability at each scale; (iv) applicable with stratified indicators for users to have access to secondary information/moderate information and geospatial information; and methods that will use of simple, multiple, and composite. Decision trees will also be developed to guide the choice of approached of users according to their capacity. Furthermore, the report will consider the influence and application of new technologies and tools in combination with *in situ* and as remotely sensed Earth observations, as well as big data processes and cloud service approaches.

On inventory and analysis, the working group noted that an inventory on existing indicators and approaches should cover the scope of ecosystems and social-economic aspect and include indicators related to these two dimensions at national, subnational and community scales. However, the working group also noted that it is a challenge to come up with valuable indicators, as they vary for developed/developing, different ecological regions and availability of literature. Therefore, these indicators are to be illustrative list rather than prescriptive in approach.

⁹ Green water has been defined as “*the water supply for all non-irrigated vegetation, including forests and woodlands, grasslands and rain-fed crops*”. Source: FAO, 1996. Food Production: the critical role of water. Technical background document 7. World Food Summit, 13-17 November 1996. Rome.

<http://www.fao.org/3/w2612e/w2612e07a.htm>

¹⁰ TORs for objective 2, click [here](#).

¹¹ IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. IPCC, Geneva, Switzerland, 151 pp. https://www.ipcc.ch/site/assets/uploads/2019/01/SYRAR5-Glossary_en.pdf

¹² United Nations General Assembly Resolution A/RES/71/276. <https://www.undrr.org/publication/report-open-ended-intergovernmental-expert-working-group-indicators-and-terminology>



Regarding methodologies, the working group supported the methodologies proposed by the consultant team for the literature review and synthesis. The group highlighted that “grey literature” – institutional reports, cases studied and experiences from different UNCCD annexes regions¹³ should also be part of this review.

The working group also discussed needs for synergies with parallel on-going processes and publications, including but not limited to those of IPCC, IDMP and UNDRR. The working group agreed it should not duplicate, but rather, where relevant, draw from or contribute to the activities of the Intergovernmental Working Group (IWG) on Drought as well as the consultancy team working on developing the Good Practice Guidance (GPG) for national reporting on drought. Finally, the working group discussed conducting outreach to regions for cases studies to complement the literature review.

The secretariat expressed that additional methodologies also could be considered to support the SPI work including i) extended experts meeting ii) online survey (e.g., a structured survey through NFPs or STCs); iii) IWG country submissions, and regional survey on vulnerability assessment; and iv) collecting cases studies from selected countries which are of interest. The secretariat emphasized that such outreach activities would need to be coordinated with any other similar efforts of the SPI (e.g., SPI Objective 1) or the secretariat (IWG, GLO2, etc.) to reduce the burden on respondents.

V. Report back to Plenary on SPI Objectives 1 and 2 of the SPI Work programme 2020-2021

The working groups for the SPI Objectives 1 and 2 reported back to plenary the key outcomes from their respective working sessions.

SPI Objective 1:

SPI Objective 1 co-Lead, Ermias Betemariam presented the outcomes of the SPI objective 1 working sessions¹⁴. The working group discussed and endorsed the adoption of a tiered approach, a benchmarking approach that aims to answer a macro statement, to look at ILUP and ILM in the context of LDN for assessing the impact of the adoption of ILUP and ILM on LDN indicators. It was noted that this approach should take into account the scales and ranges of spatial entities and consider tools and methods to quantify the role of ILUP and ILM on LDN, also working with GEO-LDN.

The refinements of the annotated outlines and chapters were described, mainly focusing on the decision to break the report into three parts: Part I: Setting the Scene: The role of ILUP/ILM in achieving LDN; Part II: Analysis and evaluation of approaches and tools to support LDN in ILUP/ILM; and Part III: Conclusions and policy proposals. Details were provided in the Section IV of Objective 1 working group sessions.

SPI Objective 2:

SPI Objective 2 co-Lead, Mark Svoboda, presented the outcomes of the working sessions. The group confirmed that the Objective 2 will provide “Multiscale approaches for assessment and monitoring the resilience of vulnerable population and ecosystems to droughts”. This explicitly includes the effects of gender differentiation and climate change, in their contribution to sustainable land

¹³ Regional annexes of the UNCCD, click [here](#).

¹⁴ Summary of Objective 1 Working Sessions (5-6 November 2020). For presentation, click [here](#).



management. The refinements in each chapter were reported to the plenary: (i) justification: will include the conceptual framework on hazards, exposure, risk, vulnerability and resilience, discussion on key concepts and relations between drought and land/water management and emerging themes; (ii) inventory: on the scope of inventory, ecosystem and socio-economic resilience and indicators and scale of assessment, youth, gender, climate change, water rural-urban connection is highlighted; (iii) technical guidelines: will focus on practical guidance to address drought resiliency through scale and tiers approach and guided by decision trees; (iv) policy recommendation: expected to offer some guidance to include the monitoring the drought resilience of the vulnerable ecosystems and populations into the drought plan at national, sub-national and local scale. The working group also identified designated members for each chapter. The needs for linkages or coordination with IWG, IPCC and other parallel efforts were highlighted.

The secretariat offered to support any outreach efforts relevant to the work of the SPI, with the cautionary note that reaching out to the National Focal Points or Science and Technology Correspondents (for a survey or any other approach) would need to be carefully coordinated to reduce the burden on respondents and avoid potential confusion.

VI. Other matters

Second SPI Science Day at COP15: The aim of the Science Day is to provide a forum for brief presentations, expert statements and interactive discussions on the links between science, policy and practice as well as to stimulate highly dynamic and interactive dialogues between SPI members and experts from various disciplines and science-policy institutions. Following up from the very successful Science Day prepared and run by the SPI at the COP14,¹⁵ the SPI co-Chair outlined the planning and organizational processes required for this event at the COP15. The preliminary planning for this event will be initiated within the next few weeks by the secretariat, inviting SPI members to join this planning and coordination meeting. A number of SPI members have already shown interest to join the “Science Day Team” (Nichole Barger, Bongani Simon Masuku, Noel Oettle, Mark Svoboda, Ermias Betemariam, Graham Von Maltitz, Everlyne Nairesiae, Nijavalli Ravindranath, Caroline King-Okumu, Ermias Betemariam, (potentially both Early-Career Scientists), however, all SPI members are encouraged to join in this impactful activity.

Pilot Programme - Early-Career Scientist Fellowship Programme: At the end of the last biennium, the SPI proposed to the CST Bureau an approach for the development of a pro bono fellowship programme targeting scientist early in their career, with an emphasis on women and diversity. The design of the programme is near completion and the secretariat and the SPI co-Chairs have proposed to pilot of this programme in the current biennium so that what is learned can be incorporated into the programme after COP15. The SPI co-Chair briefly introduced the structure envisioned for the overall programme and the pilot. The Pilot Programme would enable two early-career scientists to support the SPI in delivering on the SPI work programme 2020-2021, ideally supporting one or both SPI Objectives and at least one coordination activity. Those selected would be mentored by an SPI member (the SPI independent scientist co-Chair as well as a second SPI member) for the duration of the biennium through COP15. The two candidates would provide substantial support to the SPI technical reports and science-policy briefs and assist in scientific reviews. While the future programme would involve an open call, for the pilot, candidates will be proposed by the SPI co-Chairs and co-Leads. The UNCCD Lead Scientist and the SPI co-Chairs will evaluate the candidates and make the final selection. This programme will enable early-career scientists (two during the pilot) to

¹⁵ Science Day at COP14. <https://knowledge.unccd.int/science-policy-interface/science-day-cop14>



obtain hands-on experience in working in multidisciplinary teams, collaborate with internationally recognized experts from around the world as well as gain knowledge, skills, and experiences at the interface between science and policy on desertification, land degradation and drought. The secretariat and the SPI independent scientist co-Chair have collaborated to develop a program structure document as well as a TOR which is currently being reviewed internally in the secretariat. Once these two documents are put into final form, they will be shared with the SPI co-Chairs and then the Executive Secretary for approval.

Next SPI meeting:

The dates for the 13th SPI Meeting were agreed for 23-25 February 2021.

VII. Closing remarks

The co-Chairs made a summary of the meeting outcomes and afforded the Secretariat an opportunity to sketch a way forward based on the overall work programme. This was complimented by some closing remarks by the UNCCD Deputy Executive Secretary, Tina Birmpili, highlighting key milestones and decision points reached by the SPI, further thanking the SPI for its continued dedication and hard work, in a year that has proved to be difficult globally. Following this, the SPI co-Chairs officially closed 12th meeting of the Science-Policy Interface (SPI).



-Annexes-

Annex 1 - List of Participants of the 12th Meeting of the Science-Policy Interface of the UNCCD

List of Participants	
SPI members, observers and consultants	<p>Bongani Simon Masuku (SPI co-Chair) Nichole Barger (SPI co-Chair) Peter Verburg Ermias Betemariam Xiangzheng Deng Marijana Kapovic Solomun Graham Paul von Maltitz Zahurul Karim André Francisco Pilon Noel Oettlé Vera Boerger Everlyne Nairesiae Robert Lewis-Lettington Ratko Ristic Anna Luise Mark Svoboda Armando López Santos Caroline King-Okumu Rattan Lal Nijavalli Ravindranath</p> <p style="text-align: right;">Sergio Vicente-Serrano Ana Vukovic Robert Stefanski Katrin Ehlert Adam Fysh Karma Dema Dorji Pablo Viegas Ronald Vargas</p> <p style="text-align: right;"><u>Consultants:</u> Stefanie Herrmann Katharina Schulze Anke Reichhuber Lisa Schipper Bunafsha Mislimshoeva, Renuka Srinivasan Alisher Mirzabaev</p>
UNCCD	<p>Tina Birmpili (UNCCD, DES) Johns Muleso Kharika (UNCCD, STI) Barron Joseph Orr (UNCCD, STI) Jia Xiaoxia (UNCCD, STI) Lawrencia Esposi (UNCCD, STI) Sara Minelli (UNCCD, STI) Furkan Dosdogru (UNCCD, STI) Stefanie Gastrow (UNCCD, STI) Vittoria Semplici (UNCCD, STI) Marcos Montoiro (UNCCD, ERPA)</p> <p style="text-align: right;">Miriam Medel (UNCCD, ERPA) Daniel Tsegai (UNCCD, ERPA) Morgane Chiocchia (UNCCD, ERPA) Utchang Kang (UNCCD, ERPA) Corinna Voigt (UNCCD, ERPA) Camilla Nordheim-Larsen (UNCCD, GM) Cathrine Mutambirwa (UNCCD, GM) Hansol Park (UNCCD, GM) Pedro Lara Almuedo (UNCCD, GM) Jeroen Van Dalen (UNCCD, COMMS)</p>



Annex 2 - SPI meeting annotated agenda

12th meeting of the Science-Policy Interface (SPI)

Date: 4 - 6 November 2020

Venue: Virtual meeting

Working languages: English

Working hours: Wednesday, 4 November: 14:30 – 17:30 (CET)

Thursday, 5 November: 14:30 – 17:30 (CET)

Friday, 6 November: 14:30 – 17:30 (CET)

– ANNOTATED AGENDA –

I. Welcome address

The Deputy Executive Secretary will welcome all participants, followed by members of the Science, Technology and Innovation unit to present views with regard to the SPI and the purpose of this meeting and targeted outputs (draft technical reports for SPI Work Programme objectives 1 and 2). After welcome address we will have a group photo.

II. Adoption of the agenda and organisation of work

The agenda and organisation of work will be proposed by the SPI co-Chairs for adoption. Virtual meeting expert will give an overview of the virtual SPI meeting and how it is structured.

III. SPI Work Programme 2020-2021: Status SPI work and milestones – Plenary

The SPI co-Leads of objective 1 and objective 2 will introduce progress made and outline expected outputs of the working sessions. This will be followed by a brief presentation by the secretariat on the work associated with SPI coordination activities.

- i. Objective 1 presentation and discussion
- ii. Objective 2 presentation and discussion
- iii. Presentation on IPBES/IPCC/ITPS/IRP/GLII/IDMP/GLO2 coordination activities

IV. Working sessions of the SPI objectives 1 and 2 - Parallel break-out groups

A total of three working sessions will take place where each objective 1 and 2 and respective consultants will participate. Each working session will be moderated by the co-Leads and facilitated by the secretariat. The virtual meeting expert will guide the SPI members to break-out groups.

V. Report back to Plenary on the objectives 1 and 2 of the SPI Work programme 2020-2021

The co-Chairs will facilitate a wrap-up discussion on all that has been discussed with respect to the work programme objectives. This wrap-up will begin with a report back to the plenary



from each one of the working sessions (highlighting progress made and future plans, followed by a discussion on how to potentially bring the two reports of SPI Work Programme objectives 1 and 2 together, and maintain synergies among these two objectives).

The co-Leads (who coordinated the sessions for each SPI objective) will facilitate the recap of the key points captured in the working sessions and input for way forward.

The secretariat will facilitate a discussion for keeping track of timeline on each objective.

VI. Other matters

The co-Chairs will facilitate a discussion on other matters.

Following on the above, the secretariat will facilitate a discussion on the 13th SPI meeting.

VII. Closing remarks

The co-Chairs will make a summary of the meeting outcomes.

The secretariat will provide a briefing on way forward based on the overall work programme of the STI and to make a summary report of the meeting.

The Deputy Executive Secretary will make closing remarks.

The SPI co-Chairs will close the meeting.



Tentative schedule of work

Wednesday, 04 November 2020		
14:30 14:45	–	I. Welcome address
14:45 14:50	–	<i>Group photo</i>
14:50 15:00	–	II. Adoption of the agenda and organization of work
15:05 15:35	–	III. Status of the objectives of the SPI Work Programme 2020-2021
		i. Presentation by objective 1 co-Lead(s)
		<i>5-minute break</i>
15:40 16:10	–	ii. Presentation by objective 2 co-Lead(s)
		<i>5-minute break</i>
16:15 17:00	–	iii. Presentation on IPBES/ IPCC/ITPS/IRP/GLII/IDMP/GLO2 coordination activities
		<i>5-minute break</i>
17:05 17:30	–	IV. Working sessions on the objectives of the SPI Work Programme 2020-2021

Thursday, 05 November 2020		
First session		
14:30 16:00	–	IV. Working sessions on objectives continue
16:00 16:10	–	<i>10-minute break</i>
Second session		
16:10 17:30	–	IV. Working sessions on objectives continue

Friday, 06 November 2020		
14:30 16:10	–	IV. Working sessions on objectives continue
16:10 16:20	–	<i>10-minute break</i>
16:20 16:50	–	V. Plenary - Feedback on status of objectives (15 min each) co-Leads to present conclusions and next steps
		<i>5-minute break</i>
16:55 17:15	–	VI. Plenary - Next SPI meeting and other matters



17:15 17:30	–	VII. Plenary - Summary and closing remarks
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Annex 3 - Science-Policy Interface work programme for the biennium 2020–2021

Objectives and deliverables

<i>Objective</i>	<i>Deliverable</i>
1. Provision of science-based evidence on the potential contribution of integrated land use planning and integrated landscape management to positive transformative change, achieving land degradation neutrality (LDN) and addressing desertification/land degradation and drought issues.	A technical report providing science-based evidence of how, in the context of working to achieve or exceed LDN, integrated land use planning and integrated landscape management can contribute to positive transformative change, including examples of cases where these approaches have been applied. A demonstration, resulting from an open call, of how LDN can be incorporated into existing open source land use planning and trade-off analysis tools. Provision of scientific assistance to the Global Mechanism to support decisions on the technical feasibility of LDN transformative initiatives.
2. Provision of science-based evidence on the approaches for the assessment and monitoring of the resilience of vulnerable populations and ecosystems to drought, also considering the effect of climate change on drought risk.	A technical report, based on a review of existing synthesis reports and the primary literature, which would provide science-based guidance on approaches for the assessment and monitoring of the resilience of vulnerable populations and ecosystems to drought, including understanding the influence of climate change on drought risk.

Coordination activities

<i>Activity</i>	<i>Sub-activities</i>
1. Contribute to the work of the Intergovernmental Science–Policy Platform on Biodiversity and Ecosystems Services (IPBES) rolling work programme up to 2030 in accordance with the procedures established by IPBES and the Memorandum of Cooperation between the secretariats of the IPBES and the United Nations Convention to Combat Desertification (UNCCD).	The Science-Policy Interface (SPI) will follow up on two of the prioritized topics of the IPBES rolling work programme up to 2030: (a) Understanding the importance of biodiversity in achieving the 2030 Agenda for Sustainable Development; and (b) Understanding the underlying causes of biodiversity loss and determinants of transformative change and options for achieving the 2050 Vision for Biodiversity, contributing scientific review and analysis of key messages if these reports become available in time for the SPI to complete the review.
2. Cooperate with the Intergovernmental Panel on Climate Change (IPCC) within the framework of its agenda, particularly regarding its Special Report on Climate Change and Land (SRCCL) and its Sixth Assessment Report (AR6).	The SPI will analyse the key messages of the SRCCL and AR6 relevant for the UNCCD for presentation at the fifteenth session of the Committee on Science and Technology.
3. Follow up on current cooperation and explore future means and topics for cooperation with the Intergovernmental Technical Panel on Soils (ITPS).	The SPI will cooperate with the ITPS on topics to be jointly confirmed by the SPI and the ITPS, bearing in mind the importance of soil organic carbon to land degradation neutrality (LDN). The SPI should be involved in any follow-up activities emerging from the conclusions of the Global Symposium on Soil Organic Carbon (2017) and the Global Symposium on Soil Erosion (2019). The SPI should explore with the ITPS potential participation in future symposiums relevant to the



	UNCCD, including the Global Symposium on Soil Biodiversity (2020).
4. Cooperate with the International Resources Panel of the United Nations Environment Programme (UNEP-IRP) in accordance with the procedures established by UNEP-IRP and within the framework of its 2018–2021 work programme.	<p>The SPI will follow up on relevant portions of three of the prioritized topics of the UNEP-IRP 2018–2021 work programme, particularly two thematic assessments:</p> <p>Resource Implications of Environmental Conflict and Migration, and Leveraging Resources for Low-Carbon, Climate-Resilient Development, and the think piece, Resource Governance in Light of Fundamental Transitions in Systems of Production and Consumption, contributing scientific review and analysis of key messages if these reports become available in time for the SPI to complete the review.</p> <p>Furthermore, the SPI will contribute in a review capacity to work on mineral resource governance following the approval of the United Nations Environment Assembly resolution 4/L23 on the topic, which calls for further consultation on governance structures around resource extraction.</p>
5. Cooperate with the Global Land Indicators Initiative (GLII) of United Nations Human Settlement Programme to ensure harmonization of land indicators developed by the GLII to measure tenure security globally and at country level, and land indicators used for measuring progress towards LDN.	<p>The SPI will provide inputs to the GLII to ensure harmonization of land indicators developed by the GLII and land indicators used by the UNCCD on the basis of existing data sources and standards that are globally collectible and comparable.</p>
6. Cooperate with the Integrated Drought Management Programme (IDMP), a joint initiative of the World Meteorological Organization and the Global Water Partnership on scientific issues related to drought.	<p>The SPI will ensure the coherence and relevance of SPI work on drought, particularly towards the IDMP's second pillar of drought management, which focuses on vulnerability and impact assessment, and collaborate on two planned publications: a framework document on integrated drought management and a brochure on drought and water scarcity.</p>
7. Assume a primary role in the quality assurance of the second edition of the Global Land Outlook (GLO 2), and review and, as appropriate, contribute to the development of other UNCCD evidence-based communications.	<p>The SPI will be a member of the GLO steering committee, contribute to and undertake a scientific review of the GLO 2 and all related documents, will approve the final versions prior to publication, and will be invited to review and, as appropriate, contribute to the development of other UNCCD evidence-based communications.</p>