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Policy frameworks and thematic issues

Follow-up on policy frameworks and thematic issues: Sand and dust storms

Note by the secretariat

Summary

By its decision 25/COP.14, the Conference of the Parties requested the secretariat to prepare a report on the implementation of decision 25/COP.14 and follow up on sand and dust storms at future sessions.

This report provides a summary of the activities undertaken by the secretariat for the period 2019–2021. It presents conclusions and recommendations on ways and means to strengthen capacity and ongoing efforts in addressing the negative impacts of sand and dust storms, including anthropogenic source management.



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I. Background

1. At the twelfth session of the Conference of the Parties (COP 12) in 2015, Parties requested the secretariat to participate, within the mandate and scope of the Convention, in partnerships fostering capacity development to respond to dust and sand storms (SDS) (decision 9/COP.12). Subsequently the COP adopted two decisions on SDS, namely decision 31/COP.13 and 25/COP.14. These decisions provided guidance for the secretariat's activity on SDS to build the capacities of Parties to address SDS.

2. Decision 25/COP.14 requested the secretariat and appropriate United Nations Convention to Combat Desertification (UNCCD) institutions and bodies, within the scope and the mandate of the Convention and subject to the availability of resources, to:

(a) Finalize and publish the Sand and Dust Storms Compendium: Information and Guidance on Assessing and Addressing the Risks (SDS Compendium) in collaboration with other relevant United Nations entities and specialized organizations and promote its use;

(b) Refine, in cooperation with other relevant agencies, the Global Sand and Dust Storms Source Base-map at global, regional and national levels;

(c) Build the capacity of Parties to address SDS by developing a toolbox including decision-making support tools, in collaboration with relevant United Nations entities, institutions and partners.

3. In the same decision, Parties requested the secretariat, within its scope and mandate and subject to the availability of resources, to continue participating in the United Nations Coalition on Combating Sand and Dust Storms and enhance its cooperation and collaboration with United Nations agencies, organizations and treaties to address SDS source mitigation. It also requested the Global Mechanism (GM), within its scope and mandate, to support the development of transformative desertification/land degradation and drought projects and financing options related to anthropogenic SDS source mitigation. The same decision further requested the secretariat to prepare a report on the implementation of decision 25/COP.14 and follow up on SDS at its fifteenth session.

4. Building on these actions, this report refers to the activities on SDS undertaken by the secretariat and the GM in collaboration with other United Nations entities, institutions, and country Parties. It proposes elements to be considered for further action to support the implementation of the Policy Advocacy Framework to Combat Sand and Dust Storms to strengthen the mitigation of SDS sources in the context of land degradation neutrality (LDN) and enhance resilience and preparedness. The secretariat proposes these elements with a view to galvanizing the implementation of the UNCCD Strategic Framework 2018–2030, voluntary national LDN targets, and the commitments of the Parties to the achievement of the Sustainable Development Goals (SDGs).

II. Implementation progress

A. United Nations Coalition on Combating Sand and Dust Storms

5. The secretariat continues to actively participate in the United Nations Coalition on Combating Sand and Dust Storms, initiated through United Nations General Assembly resolution 72/225,¹ to contribute to a global response to SDS. The Coalition was formally launched at COP 14 in New Delhi in 2019.

6. Since its launch, the Coalition, a voluntary association dedicated to combating SDS with more than 15 members consisting of United Nations entities, intergovernmental organizations, and affiliated members, has been developing operational arrangements,

¹ <<https://digitallibrary.un.org/record/1467245?ln=en>>.

including terms of reference, governance operational guidelines, a strategy and an action plan. Currently led by the Food and Agriculture Organization of the United Nations (FAO), the chair of the Coalition rotates every two years. The mandate of the Coalition as defined by the participating members, is to:

(a) Promote and coordinate a collaborative United Nations-system response to SDS on local, regional and global scales, ensuring that unified and coherent actions are taken;

(b) Facilitate the exchange of knowledge, data and best practices among Coalition members to promote effective and coherent action on SDS;

(c) Encourage and promote collaboration on initiatives and activities undertaken by members of the Coalition, including advocacy and resource mobilization;

(d) Facilitate dialogue and collaboration among affected countries and the United Nations (UN) system to address SDS issues collectively; and

(e) Facilitate the capacity-building of Member States, raise their awareness and enhance their preparedness and response to SDS in affected areas.

7. Drawing from the Coalition strategy, an action plan was developed for the period 2020–2022, including the formation of the five working groups, namely: Working group I: Adaptation and mitigation; Working group II: Forecasting and early warning; Working group III: Health and safety; Working group IV: Policy and governance; and Working group V: Mediation and regional collaboration.

8. The Coalition action plan, being flexible in nature in order to accommodate emerging priorities and opportunities, includes a series of actions to be undertaken by members along with other relevant actors and beneficiaries. It is comprised of five action elements and associated activities that reflect the secretariat's work priorities on SDS as guided by Parties. These action elements and associated activity components are summarized in annex I of this document.

B. Advocacy, collaboration and partnership, and capacity-building

1. Advocacy and collaboration and partnership

9. The secretariat has provided inputs to the Report of the Secretary-General entitled “Combating sand and dust storms” submitted to the 74th (2019), 75th (2020) and 76th (2021) session of the United Nations General Assembly (A/74/263,² A/75/278,³ A/76/219⁴), respectively. The reports highlight activities and initiatives undertaken by United Nations entities, including the secretariat of the Convention, United Nations Member States and a range of stakeholders and covers the period from mid-2018 to mid-2019, mid-2019 to mid-2020 and mid-2020 to mid-2021, respectively. They underscore the achievements made during the reporting period in four principal areas: (i) cross-cutting activities; (ii) monitoring, prediction and early warning; (iii) impact mitigation, vulnerability and resilience; and (iv) source mitigation.

10. The secretariat also collaborated closely with partners, including the United Nations entities and specialized agencies, institutions and country Parties, on policy advocacy and awareness-raising to combat SDS through the United Nations Coalition on Combating Sand and Dust Storms and bilateral cooperation, as follows:

(a) The secretariat collaborated with the United Nations Coalition on Combating Sand and Dust Storms in organizing a side event on “Sand and Dust Storms: A critical climate change adaptation issue” at the United Nations Framework Convention on Climate Change Pre-COP Milan held from 30 September to 2 October 2021;

² <<https://digitallibrary.un.org/record/3825221?ln=en>>.

³ <<https://digitallibrary.un.org/record/3878284?ln=en>>.

⁴ <<https://digitallibrary.un.org/record/3937026?ln=en>>.

(b) The secretariat participated virtually in the Steering Committee Meeting of the Sand and Dust Storms Warning Advisory and Assessment System of the World Meteorological Organization (WMO) held from 11 to 14 November 2019 in Hangzhou, China;

(c) The secretariat partnered with the Asian and Pacific Centre for the Development of Disaster Information Management of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) in developing the publications Guideline on Monitoring and Reporting the Impact of Sand and Dust Storms through the Sendai Framework Monitoring⁵ and “Sand and Dust Storms Risk Assessment in Asia and the Pacific”.⁶

2. Capacity-building

11. The secretariat has been developing a set of capacity-building training materials including associated e-learning courses in line with the SDS Compendium and the Sand and Dust Storms Toolbox (SDS Toolbox). The trainings and supporting material are targeted at individuals with a responsibility for dealing with SDS (including UNCCD National Focal Points). The focus is on raising awareness about SDS challenges to society and developing and defining ways and means to address these challenges. Preliminary training course themes include, inter alia: (1) risk assessment including vulnerability and economic impact assessment; (2) source mapping; (3) monitoring and early warning; and (4) SDS source and impact mitigation.

C. National and regional policy development and implementation

12. The secretariat has been assisting in the development of national and regional policy and frameworks in collaboration with partners and in accordance with the Policy Advocacy Framework to Combat Sand and Dust Storms. This section summarizes the secretariat’s activity in this work stream, as guided by decisions 31/COP.13 and 25/COP.14.

1. Monitoring, prediction, early warning and preparedness: Global Sand and Dust Storms Source Base-map

13. The Global Sand and Dust Storms Source Base-map⁷ has been further refined and is now available through a web-based user interface. The base-map built upon open-access global data sets and information, including remote sensing-imagery, and is intended to provide a set of geo-referenced numerical maps at 1km resolution to support national approaches to integrating SDS source mitigation measures into the LDN target-setting process. The base-map was developed in collaboration with the United Nations Environment Programme and the WMO with the support of selected experts from the Science-Policy Interface.

14. The base-map specifically focuses on soil surface status, including parameters on soil texture, structure, moisture and temperature, in combination with vegetation coverage, to better detect active and dormant SDS sources, taking into account the seasonality of sources and extreme weather conditions such as drought. It can contribute to defining SDS source patterns, including small-scale and point sources. This information is needed in planning mitigation actions, source monitoring, early warning, and risk, impact and vulnerability assessments at subnational, national and regional levels.

⁵ <<https://apdim.unescap.org/sites/default/files/2021-06/Guidelines%20on%20monitoring%20and%20reporting%20the%20impacts%20of%20sand%20and%20dust%20storms%20through%20the%20Sendai%20Framework%20monitoring-31%20May%202021.pdf>>.

⁶ <<https://apdim.unescap.org/sites/default/files/2021-09/APDIM-Sand%20and%20Dust%20Storms%20Risk%20Assessment.pdf>>.

⁷ <<https://maps.unccd.int/sds/>>.

2. Impact mitigation, vulnerability and resilience

(a) *Sand and Dust Storms Compendium: Information and Guidance on Assessing and Addressing the Risks*

15. The secretariat finalized and published the SDS Compendium⁸ in collaboration with the Science-Policy Interface, FAO, United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP), the United Nations Entity for Gender Equality and the Empowerment of Women, the United Nations Office for Disaster Risk Reduction (UNDRR), the World Health Organization (WHO) and WMO, and external experts and partners.

16. The aim of the SDS Compendium is to provide information and guidance on how to assess and address the risks posed by SDS and plan actions to combat them. The Compendium brings together information and guidance from a wide range of sources. It includes approaches and methodology frameworks on data collection, assessment, monitoring and early warning, impact mitigation and preparedness, and source mapping and anthropogenic source mitigation that are required for the development and implementation of policies related to SDS at subnational, national, regional and global levels, taking into account the principles set out in the Policy Advocacy Framework to Combat Sand and Dust Storms and the cross-sectoral and multidisciplinary nature of the impact that SDS can cause to societies, economies and the environment.

(b) *Sand and Dust Storms Toolbox*

17. The secretariat developed the SDS Toolbox in collaboration with FAO, UNDP, UNDRR, UNEP, UNESCAP, the United Nations Economic and Social Commission for Western Asia, WMO, the World Overview of Conservation Approaches and Technologies (WOCAT), and external experts. The overall objective of the SDS Toolbox is to provide stakeholders with easy access to tools, methodologies, approaches, case studies and other resources to support the development and implementation of SDS policies and plans at various levels.

18. The SDS Toolbox aims to compile existing knowledge, information and data, as well as tools and methodologies developed by SDS experts, United Nations entities and other partners. It presents key features and elements in five modules, namely: (i) SDS source mapping and monitoring; (ii) SDS source control and management; (iii) observation, monitoring, forecasting and early warning; (iv) risk and vulnerability assessment and mapping; and (v) preparedness and impact mitigation. The first generation of the SDS Toolbox will be made available by mid-2022 through a web-based user interface.

19. As part of the toolbox development, building on the Global Sand and Dust Storms Source Base-map, the secretariat has been conceptualizing an embedded geographic information systems (GIS) platform to meet data requirements across several tools that may be best used as an ensemble, such as (1) long-term forecasts and near-real-time evolution of SDS events; (2) anticipated SDS event impacts and warning measures; (3) past and possible future impacts of SDS; (4) risk and vulnerability information and reduction measures; and (5) data that defines intervention parameters (e.g. precipitation, wind speed, vegetation and land use type and change). The envisioned GIS platform aims to provide a technical tool to assemble, link and present one or more data sets based on geospatially referenced data points. This process can result in user-selected options to:

- (a) Visually present multiple compatible data sets with embedded data records that can be accessed on demand;
- (b) Present near-real-time updates of related data sets, including SDS warnings;
- (c) Analyse and present changes in specific data sets over time;

⁸ <<https://www.unccd.int/publications/coming-soon-sand-and-dust-storms-compendium-information-and-guidance-assessing-and>>.

- (d) Compare changes in different data sets over time;
- (e) Link information to specific locations at one point in time, or changes over time;
- (f) Enable access to data on sustainable land management, LDN, impact mitigation and other information useful for SDS management.

3. Source mitigation: national and regional planning and implementation

20. The secretariat has been assisting in the development of national and regional plans, policy and frameworks in accordance with the Policy Advocacy Framework to Combat Sand and Dust Storms, with a focus on impact mitigation, including anthropogenic source management. Several pilot projects have been initiated and implemented with partners at national and regional levels in Nigeria, central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan) and northeast Asia (China, Mongolia, Republic of Korea, Russian Federation) to formulate national and/or regional SDS plans and strategies that can lay the foundation for accelerating immediate actions on the ground. The objective is to strengthen the preparedness and resilience of affected populations while promoting cooperation and collaboration among concerned stakeholders at all levels.

21. The secretariat and the GM collaborated with the United Nations Coalition on Combating Sand and Dust Storms in conceptualizing a global programme on combating SDS to enhance food security and achieve LDN.⁹ A draft concept note has been developed, led by FAO in consultation with the secretariat, the GM and other members of the Coalition, including UNDP, WMO, WHO and ESCAP, and builds on the ongoing SDS-related activities of FAO and UNCCD. The concept note links SDS with LDN and notes that the relationship between SDS and land degradation is complex, multifaceted and synergistic. The note further underlines that policies designed to avoid, reduce and/or reverse land degradation will also have the effect of mitigating SDS sources, delivering multiple environmental, economic and social benefits at national and global levels.

22. The objective of the global programme is to (i) strengthen the resilience of agriculture-dependent communities affected by increasing exposure to climate change and the increased risks and impacts of SDS, while reducing and/or reversing land degradation; and (ii) create an enabling environment for scaling-up SDS source and impact/risk reduction in the agricultural sectors.

23. This programme also seeks to support communities and governments in the mainstreaming of SDS prevention and adaptation activities within existing frameworks for multi-hazard disaster risk reduction and management and enhance collaboration between SDS source and impact regions. This is the value-added of this programme as it will encourage data sharing at regional, national and subnational levels. Specific activity areas of the programme include:

(a) *Regional level*

(a) Knowledge-sharing platform across the participating countries to enhance dialogue and actions on combating SDS and land degradation and build resilience to the effects of climate variability on agriculture and land;

(b) Design and implementation of a comprehensive capacity development programme (enabling activity) based on a stocktaking of current capacities and needs to enable countries/regions to take actions and responses aligned with COP decisions on combating SDS;

⁹ Decision 25/COP.14, paragraph 3, “invites the United Nations Coalition on Combating Sand and Dust Storms and other relevant United Nations entities as well as member agencies of the United Nations Coalition on Combating Sand and Dust Storms to [...] explore the potential elements of a broader sand and dust storms initiative”.

(c) Standardized indicators and refined tools for assessing the source and impact of SDS in relation to agriculture, informing risk management and planning at national and regional levels, and facilitating integration with LDN indicators and targets.

(b) *National and subnational levels*

(a) Integrate SDS source management in the national LDN process through the implementation of sustainable land and soil management and water use practices and activities. This includes investment in sustainable land management options aimed at reducing land degradation and desertification in SDS source areas associated with rangelands and croplands;

(b) Organize trainings and capacity development on tools and methodologies related to awareness-raising and planning for combating the impact of SDS, especially on land, including agriculture, and interlinkages with national efforts to achieve LDN targets;

(c) Strengthen SDS governance by mainstreaming SDS risk reduction in agriculture within existing national policy processes, including in multi-hazard/multisectoral risk reduction planning, LDN, agricultural development planning and/or climate change adaptation planning (such as nationally determined contributions and national adaptation plans).

24. The secretariat also collaborated with FAO in drafting elements for voluntary policy guidelines in order to assist affected countries in the integration of SDS into the related policy and development agenda, including LDN, focusing on anthropogenic source mitigation while mobilizing expertise across sectors and disciplines in the development and implementation of SDS-related policy and plans. The aim is to provide affected countries with further information and guidance in creating the enabling environment that is an essential precursor to harness SDS risk reduction in a connected way, utilizing multiple tools provided through the SDS Toolbox and ultimately contributing to the positive changes of reducing and mitigating the human impacts caused by SDS. Further information on the draft elements of voluntary policy guidelines is available in document ICCD/COP(15)/CRP.1.

III. Analysis of the survey on sand and dust storms

25. A survey was conducted with the aim of defining potential needs, gaps and priority areas where further efforts may be required in assisting affected Parties to enhance the preparedness and resilience of vulnerable ecosystems and populations to the adverse and negative impacts of SDS. The survey also aimed to provide inputs to the further development of the SDS Toolbox. It targeted UNCCD national focal points as the main respondents, with a focus on national perspectives on SDS matters.

26. The survey had 10 questions consisting of multiple-choice questions, scaled responses questions (high to low) and open questions, as well as four questions concerning the respondents' background. Fifty-five countries responded to the survey, which represents close to 30 per cent of all UNCCD Parties. Key survey findings were as follows, with detailed analysis provided in the annex II of this document:

(a) The survey findings shows that integration of SDS into key policy areas needs further strengthening. Although most countries affected by SDS have at least some policy tools that influence, if not directly address, SDS, there are major gaps in critical policy and planning areas, such as monitoring, disaster risk reduction, impact assessment and emergency response measures, including health advisories;

(b) Only around one-third of the countries affected by SDS responded having programmes or initiatives for anthropogenic SDS source mitigation, indicating a need for urgent action in this context. The national voluntary LDN targets offer an already well-established basis for meeting that need, with their evolving implementation and data collection/reporting processes. Further support and guidance is needed for translating SDS source mitigation into practical action and integrating it into the LDN targets. A more systematic and holistic approach could improve the coherence and effective implementation

of SDS-related policies across sectors, maximizing the co-benefits of achieving LDN and other restoration goals;

(c) There is a need for more and better observation and monitoring, as well as information and data on SDS, including climatic data, SDS sources and impacts, vulnerability and risk information, and best practices. This could be interpreted as a lack of access to existing information and data, or the non-existence of such information and data. The survey pointed to potential approaches and initiatives that can assist in closing these data gaps, support science-based decision-making, and boost action and cooperation at subregional, regional and global levels. These can be summarized as follows:

- (i) Policy-science interface/dialogue on SDS;
- (ii) Global scientific cooperation initiative on SDS (assessment, mapping);
- (iii) Global network on SDS information/knowledge, including a best practice database;
- (iv) Regional cooperation and implementation mechanism (or platform), including target-setting and joint source mitigation initiatives;
- (v) Training and knowledge sharing.

IV. Conclusions and recommendations

27. Since COP 12, deliberations on SDS under the UNCCD have delivered significant results, including decisions that recognize the importance of anthropogenic SDS source mitigation as an essential element for reducing the negative impact of SDS at all levels in the context of the implementation of the Convention and LDN, while contributing to several SDGs. The Policy Advocacy Framework to Combat Sand and Dust Storms has served as the principal guidance on SDS-related policy and actions at national, regional and global levels, including the activities of the secretariat. A significant compilation of materials and information has been made available to assist affected countries in building capacity to combat SDS. These include the SDS Compendium, Global Sand and Dust Storms Source Base-map, the SDS Toolbox, training materials including dedicated e-learning courses, lessons learned from pilot projects, among other things, which were developed in collaboration with numerous partners and experts. They provide a strong foundation to promote further actions at all levels on SDS.

28. Knowledge gaps and a lack of information, coupled with many uncertainties associated with the global dust cycle and its interactions with human society and ecosystems, is by far one of most recognized challenges in addressing SDS. The survey findings indicate how UNCCD Parties affected by SDS are addressing related challenges, including through the implementation of COP decisions.

29. Bold and forward-looking decisions on practical yet proactive actions will help enable affected Parties to better adapt to the risks posed by SDS, build resilience and increase the preparedness of affected populations in the context of the implementation of the Convention and LDN, while facilitating the access to relevant information and tools, such as policy guidelines and decision support tools available through the SDS Compendium and the SDS Toolbox. Such decisions will also promote, collaboration and partnership at all levels across sectors, stakeholders, types of expertise, and disciplines, noting the impacts of SDS on diverse dimensions of human society and the environment.

30. Taking these conclusions into account, at its fifteenth session, the COP may wish to consider the draft decision on combating SDS, as contained in document ICCD/COP(15)21.

Annex I

Summary of the action plan elements and associated activity of the United Nations Coalition on Combating Sand and Dust Storms

I. Action plan element 1: United Nations inter-agency collaboration and dialogue on Sand and Dust Storms

Activity 1.1: Continue to further develop the work of the United Nations Coalition on Combating Sand and Dust Storms and expand its membership; consider enlarging the Coalition to include key players from the public and private sector around the world.

Activity 1.2: Continue to hold regular online general meetings of the Coalition (i.e. at least twice per year), and special purpose ones when needed for planning purposes, as well as meetings of its five Working Groups.

Activity 1.3: Consider a range of high-visibility, high-impact projects that could involve two or more Coalition members/partners, including affected countries, and fast track these.

Activity 1.4: Assure that SDS-related activities and projects undertaken by any and all Coalition members dovetail with similar activities/projects already underway or planned by other members.

Activity 1.5: Participate in numerous high-level international and regional events, through one or more Coalition member(s), in order to highlight the inter-agency collaboration for broad audiences and raise awareness of SDS issues.

II. Action plan element 2: Advocacy and awareness-raising

Activity 2.1: Develop a simple and straightforward communications strategy that helps to address key SDS beneficiaries and other stakeholders (affected countries, other United Nations agencies and intergovernmental organizations, civil society and the private sector).

Activity 2.2: Develop an easy-to-access and use SDS 'app' that offers information on SDS, including forecasts of SDS events, and on measures for undertaking mitigation actions, along with a health-related advisory element.

Activity 2.3: Develop a series of (mostly online) products that can be used to better explain what SDS are and the potential and real impact of related events, as well as what entities/individuals can do to prepare and help mitigate such occurrences.

Activity 2.4: Create a step-by-step road map (infographic) that can also be used both to explain and address SDS challenges for the policy level and locally affected populations.

Activity 2.5: Create a calendar of SDS-related events that can be used to advocate for and raise awareness about SDS issues and the Coalition itself.

III. Action plan element 3: Exchange of information and capacity-building

Activity 3.1: Create a virtual catalogue of all available models and tools for coping with SDS events across their lifecycle and all phases of disaster risk management (prevention to recovery), plus various assessment types, with an emphasis on documenting success stories from varied sources.

Activity 3.2: Document existing research findings (e.g. scientific papers), principal databases and expertise that offer improved knowledge for better understanding SDS events.

Activity 3.3: Conduct a gap analysis to identify areas of the SDS lifecycle where information is lacking and further study is needed; then strive to have scientific research conducted that will ultimately help to fill the gaps identified.

Activity 3.4: Identify reasons for the lack of implementation of SDS source and impact mitigation practices by key beneficiaries, including local ones, and make this information available through the virtual catalogue.

Activity 3.5: Promote studies (and possibly organize one or more conferences) to examine SDS impacts from a gender perspective and on livelihoods, including related humanitarian aspects and political risks stemming from SDS.

Activity 3.6: Plan and organize trainings at national and regional levels, targeting different government sectors in line with SDS's cross-sectoral nature and multidisciplinary impacts.

Activity 3.7: Plan and organize multidisciplinary training programmes, potentially building on and with the support of UNCCD's SDS training modules for national focal points and stakeholders, and similar.

Activity 3.8: Plan and organize trainings for international aid and humanitarian groups, focusing on the advice given to local communities to help prepare for and cope with SDS events.

IV. Action plan element 4: Development of a “Plat-forum” for sand and dust storms

Activity 4.1: Develop an online SDS “Plat-forum”, including a database of assessments/papers/studies/tools on SDS, to be accessible to all Coalition members, affected countries and the general public.

Activity 4.2: Allow for a “citizen science” bottom-up approach and real-time reporting as part of the plat-forum, including the use of interactive maps, with functions allowing citizens to upload latest/local information.

Activity 4.3: Include in the plat-forum SDS products (e.g. brochures, instruction kits, newsletters, etc.), calendars of events, and roadmaps to be developed as part of element 2 above.

Activity 4.4: Also include an up-to-date register of current and planned SDS-related capacity-building activities/projects for users of the plat-forum to consult.

V. Action Plan Element 5: Fundraising/resource mobilization

Activity 5.1: Begin by defining the set of potential funding entities/mechanisms that can be targeted in resource mobilization efforts.

Activity 5.2: Prepare a series of proposals (ranging from source mitigation to early warning and forecasting and educational/outreach activities) for potential donor funding that reflect the highest priority needs of SDS regional partners and affected countries.

Activity 5.3: Organize a “donor–recipient workshop” for the Coalition and affected countries to call on potential donor entities for their support, and for participating donors to make pledges, either of a general nature or toward specific funding requests.

Activity 5.4: For any funding proposal that is to go forward, identify which of the Coalition members will take the lead in the entire process from the start, as well as in assisting the country/region to make contact and follow through with prospective donors.

Activity 5.5: Assist regional entities and countries throughout the process of preparing and submitting funding proposals and matching available/potential resources with their defined needs, in terms of SDS capacity-building at the national and regional levels.

Activity 5.6: Where possible, add value to funding proposals by involving private partners such as insurance companies and weather services, etc., for example through the creation of SDS private-public partnerships.

Activity 5.7: Develop and maintain an active register of funding proposals and their status.

Annex II

Summary analysis of the survey on sand and dust storms

1. A total of 47 respondents indicated that their respective country is affected either from domestic dust sources and/or long-range transport of dust, including wind erosion. One third of them confirmed that sand and dust storms (SDS) form part of their national disaster risk reduction policies.

2. A total of 41 respondent countries (87 per cent) identifying themselves as affected by SDS reported having one or more SDS-related policy measures, including: (i) SDS risk reduction strategies; (ii) monitoring and forecasting systems; (iii) an early warning system (including as part of a multi-hazard early warning system); (iv) health advisories; (v) emergency response measures; (vi) legislation and regulations (construction standards, traffic regulations, air quality control, etc.); (vii) institutional arrangements (committees, cross-sectoral coordination bodies etc); and (viii) an SDS source management plan and policy. 'Early warning system' was the most frequently reported measure, followed by 'monitoring and forecasting systems', and relevant 'legislation and regulations'. A total of 25 countries (more than 60 per cent of those with measures) reported having one or two policies related to SDS in place, while 13 countries (31 per cent) reported having 3–5 policies. Fewer countries (3) have 6–8 policies.

3. A total of 36 country respondents reported having SDS sources, and 13 of them (36 per cent) reported that there are programmes and initiatives related directly to anthropogenic SDS source management at subnational and national levels. A majority of such initiatives are associated with broader ecosystem restoration plans and strategies, including those on land degradation neutrality. Under this topic, a small number of countries also included broader ecosystem restoration plans and strategies that might contribute to SDS source mitigation in a broad sense, although such plans and strategies are not explicitly dedicated to SDS source management.

4. On the most critical challenges faced by countries in addressing SDS, the responses largely revolved around lack of information and data followed by lack of awareness. The majority of respondents rated observation and monitoring data on SDS occurrence as the most pressing challenge, although it is essential for forecasting and early warning of SDS. This was followed by SDS source information and risk and impact information, which serve as a primary input for a comprehensive SDS risk reduction strategy including early warning and source mitigation.

5. The respondents had an option to provide additional inputs on priorities for information and data needs for addressing SDS using a 1–5 scale. These inputs reflected the challenges faced, while suggesting specific descriptions relevant to practical actions or intervention areas covering a range of categories. These 'actionable' priorities included various scientific and technical initiatives around monitoring, mapping, vulnerability and risk assessment, impact assessment (health, economy, environment), establishment of a global network on SDS information/knowledge, and policy-science dialogue, among other things. It is noteworthy that respondents rated measures relating to 'Policy, governance and cooperation' as a priority for creating an enabling environment and enhancing capacity to promote actions in a proactive manner. Furthermore, respondents provided their views on the information needs for measures or best practices for SDS impact mitigation (such as health, agriculture, transport, source, etc.) that are applicable or adaptable in their national context. The respondents were asked to rank the most impactful means and areas to boost subregional and regional cooperation in addressing SDS. The top three means/areas were (i) information/data sharing and exchange (such as monitoring, observation); (ii) joint research and scientific initiatives (assessment, mapping); and (iii) training and knowledge-sharing. However, other areas were recognized as highly important, without substantial gaps among the suggested areas for subregional and regional cooperation. For instance, cooperation on anthropogenic source mitigation received the fewest '5' rankings, but it received the most '4' rankings.

6. Respondents were also invited to provide their views on how best to promote regional and global actions on SDS as a way forward. Suggested actions and approaches were categorized into four groups. Numerous suggestions were made under the category on ‘Knowledge and information sharing’, including the creation of a best practices database, exchange (and sharing) of information and data, and effective communication of relevant information, among other things. Another major category was “Policy, governance and cooperation”, under which respondents suggested instrumental and institutional approaches such as a policy-science interface/panel on SDS, a cooperation and implementation mechanism (or platform), (sub)regional target-setting and an action plan. Some others proposed project-oriented approaches to strengthen cooperation, such as global and regional scientific initiatives (e.g. assessments) in which each country can collaborate. These two perspectives seem to link the progress made in policy and governance with that made in cooperation. “Source mitigation”, linked with land degradation neutrality, was suggested by 10 respondents as an option to promote action on SDS, serving as a tool for strengthening (sub)regional cooperation through joint initiatives. Lastly, a smaller number of respondents suggested “Training and capacity building” as a potential area for enhancing global and regional actions in combating SDS.
