



UNITED NATIONS

ENVIRONMENT MANAGEMENT GROUP

EMG

Strategy for the UN Inter-Agency Sand and Dust Storm (SDS) Coalition *(first draft prepared 15 July - 3 Sept. 2019 by RGW for HF/EMG)*

A. Background

In January 2018, the United Nations General Assembly (UNGA) in its resolution 72/225 invited the Executive Director of the United Nations Environment Programme (UNEP) to initiate an inter-agency process involving relevant entities of the UN system, to prepare a global response to sand and dust storms¹ (hereafter SDS). The UNGA in its 73rd session welcomed the intention of UNEP's Executive Director to establish such an inter-agency network, having the potential to become a framework for medium- to long-term cooperation on SDS.

In September 2018, the 24th Meeting of the EMG Senior Officials agreed to form the "Coalition to Combat Sand and Dust Storms (SDS)", including UN agencies and other organizations and research institutes, to address this challenge. The **mandate** of the SDS Coalition as defined by the participating entities is follows:

- promote and coordinate a collaborative UN-system response to SDS, on local, regional and global scales, ensuring unified and coherent actions are taken;
- facilitate exchange of knowledge, data and best practices among Coalition members to promote effective and coherent action on SDS across the UN system;
- encourage and promote collaboration on initiatives and action within the Members of the Coalition on SDS, including advocacy and funding initiatives;
- facilitate dialogue and collaboration amongst affected countries and the UN system in addressing SDS issues collectively; and
- facilitate the capacity building of Member States, raise their awareness and enhance their preparedness and response to SDS in critical regions.

UN agencies nominated their focal points to the Coalition and its first meeting was held by videoconference on 14 February 2019. At that time, the focal points also agreed on areas of focus, modalities and a near-term (to end 2019) workplan for the Coalition.

¹ - "within their respective mandates and existing resources, and taking into account UN Environment Assembly resolution 2/21 of 27 May 2016 and other relevant resolutions and decisions".

B. Basis for an SDS Coalition Strategy

Aside from the SDS Coalition mandate elaborated above, the Coalition has agreed that its joint workplan should support the following series of **objectives**:

- Prepare a global response to sand and dust storms, including a strategy and an action plan, which could result in the development of a United Nations system-wide approach to addressing sand and dust storms;
- Identify entry points to support affected countries and regions in the implementation of cross-sectoral and transboundary risk reduction and response measures for SDS;
- Convene and enhance dialogue and collaboration among affected countries and the UN system agencies at global, regional and sub-regional levels; and
- Provide a common platform for technical expertise and resources for strengthening preparedness measures and strategies for risk reduction, consolidated policy, innovative solutions, advocacy and capacity building efforts, and fund-raising initiatives.

These are to be addressed within four major cross-cutting **work areas** as follows:

1. Facilitation of information exchange among stakeholders (e.g. data collection, knowledge sharing and innovative solutions)
2. Capacity building and training
3. Mobilizing resources and fund-raising initiatives
4. Advocacy and awareness-raising

In order to fulfil its mandate and meet the agreed objectives of the SDS Coalition within the four work areas, these must serve as a point of departure for the Strategy's conception. The Strategy should also elaborate *how* the SDS Coalition can best collaborate and employ its limited human and financial resources to achieve the maximal results and have the greatest impact within a reasonable time period, in order to build momentum for SDS-related activities and projects, both globally and at the country level in those nations most affected by SDS.

The following brief section examines the commonalities that are found within the SDS Coalition mandate, objectives and work areas, in order to provide a clear focus for the Strategy. It will be seen that all of the foregoing can be reduced to **five key elements** that the Strategy needs to address and explain in terms of how the SDS Coalition can succeed in its mission to "prepare a global response to sand and dust storms" and provide support to the most affected countries.

C. Common Elements for an SDS Coalition Strategy

The key comment elements from the SDS Coalition's mandate, objectives and work areas, based on a comparative mapping of the same, can be reduced to the following essentials:

1. **UN inter-agency collaboration and dialogue on SDS** on a regular and ongoing basis.
2. **Advocacy and awareness-raising** on SDS, both within and beyond the UN system, to inform relevant entities and affected countries, and help to catalyse appropriate actions on SDS.
3. **Exchange of information**, knowledge/expertise and innovative solutions for SDS-related issues, with national partners and other entities, with related **capacity building/training**.
4. Development of a **forum/platform** to address SDS (this to build on points 1-3).
5. **Fund raising/resource mobilisation** for joint responses to SDS issues.

Thus, the following Strategy is based on the ways and means for the SDS Coalition to achieve this "five-point plan" within a reasonable time period (2019-22), in order to have measurable qualitative and quantitative impacts on SDS issues at global, regional and national levels.

D. Elements of the SDS Coalition's Strategy

1. Enhancing UN inter-agency collaboration

The SDS Coalition is first and foremost **a means to convene, communicate and raise awareness** about sand and dust storms' underlying causes, the mechanics of SDS and their potential and actual impacts, along with solutions for countries and regions to better cope with the same. In addition, the Coalition needs to **consider both the political and technical aspects of SDS** in becoming effective at promoting collaboration and cooperation. To succeed, the Coalition should strive to become **the authoritative voice on SDS issues**, both at the global level and in the countries and regions that are most affected by SDS, and **make full use of the UN's convening power** to do so. Following are a **series of actions** that offer pathways to bring such a collaborative and convening role to fruition in the coming years:

- 1.1 - Continue and expand the work of the SDS Coalition and its members; consider enlarging the Coalition² to include key players from the public and private sectors around the world (e.g. research institutes, disaster planning and emergency response bodies, insurance companies and other relevant bodies) which could bring additional substance to and resources for the Coalition's work(plan).

² - It should not be forgotten or overlooked, e.g., that there is also a need for improved/increased collaboration with the UN agencies involved in agriculture and rangeland management at the country level (including FAO, IFAD, UNDP et al.), as well as linkages with the Rio Conventions and other global and regional entities dealing with land degradation and desertification, climate change, etc.

- 1.2 - Continue to hold regular online general meetings of the SDS Coalition, i.e. at least twice per year, and special-purpose ones when needed for planning purposes, coordinated by UNEP's EMG, and have occasional presentations by selected members allowing them to detail one or more of their activities linked to SDS issues.
- 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 as outstanding examples of inter-agency/entity collaboration (the success of such examples could, e.g., considerably aid in fund-raising activities).
- 1.4 - Assure that SDS-related activities and projects undertaken by any & all Coalition members dovetail with similar activities/projects already underway or planned by other members, in order to achieve greater synergies and efficient use of resources, and also to be able to highlight how the SDS Coalition is fulfilling its mandate efficiently (see also 5 below).
- 1.5 - Participate in numerous high-level international and regional events, through one or more Coalition member, in order to highlight the inter-agency collaboration for broad audiences and potentially bring more data/information and financial and human resources into play - globally and regionally - for SDS in the coming years.

2. Advocacy and Awareness-raising

Advocacy and awareness-raising are closely related but far from identical tasks. On the one hand, **advocacy** implies speaking out about SDS issues and on behalf of its stakeholders, leading to improved actions to cope with the same, whereas **awareness-raising** means educating a broad range of entities and individuals concerned by SDS to improve their understanding of the causes and impacts of such events/processes. However, both of these tasks should ultimately have the effect of bringing more resources (human, institutional and financial) to bear on SDS-related problems, and assuring a more receptive audience for relevant activities/projects.

Clearly both of these broad tasks would be best achieved in a fully-coordinated fashion; the SDS Coalition itself offers the ideal vehicle for such interaction. Following are a series of points to assure that advocacy and awareness-raising activities can be efficiently conducted:

- 2.1 - Develop a simple and straightforward communications strategy that helps to address key SDS stakeholders (affected countries, other UN agencies and IGOs, civil society and the private sector) using clear messages and easy-to-understand, well-illustrated case studies of SDS issues, and ideal channels for advocacy and awareness-raising, to be used by Coalition participants.
- 2.2 - Develop an easy-to-access and use SDS 'app' that offers information on SDS, including forecasts of SDS events, offering measures for undertaking mitigating actions, along with a health-related advisory element.
- 2.3 - Development of a series of (mostly online) products that can be used to better explain what are SDS and the potential and real impact of related events, as well as what entities/individuals can do to prepare and help mitigate such occurrences. Such products (e.g. brochures, instruction kits, newsletters etc.) can be cited and/or distributed when Coalition members take part in relevant meetings. As a few existing examples, see the WMO's periodic "Airborne Dust" bulletins and the UNCCD's Technical Compendium (*n.b. - in progress*).
- 2.4 - Create a step-by-step road map ("infographic") that can also be used both to explain and to address SDS challenges for policy-level and locally affected stakeholders.
- 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. Determine within the SDS Coalition which members are best-placed to attend and take key messages forward at such events, promoting the inclusion of SDS in global agenda, helping raise funds etc.

A draft "action plan" (see Annex I) identifies key opportunities at global and regional levels to develop and promulgate messages to the global SDS community at large.

3. Exchange of Information and Capacity Building:

This section deals with the collection and dissemination of relevant information, knowledge, expertise and innovative solutions and tools on SDS, among various participating entities and countries, end users et al. It also covers potential capacity building activities that would help to mainstream relevant expertise/information/solutions at regional and national levels, for those regions and countries that are most affected by SDS events and issues.

There is a clear need to develop a repository of information and knowledge on the entire life cycle of sand and dust storms, from their genesis/enabling conditions to their after-the-fact environmental and societal impacts. Such a repository or "virtual catalogue" will not only form a critical mass for affected countries and other stakeholders to consult, but will facilitate the exchange of vital information, knowledge and best practices relating to SDS. At the same time, the creation of such a catalogue will engage a wide range of stakeholders in its development and ongoing maintenance, and thus stimulate a dialogue among concerned entities/persons.

The following steps are proposed to this end:

- 3.1 - Develop a catalogue of all available models and tools for SDS, including the full lifecycle of SDS from early warning to mitigation, plus various assessment types, with emphasis on documenting success stories from varied sources (entities/places);
- 3.2 - Document existing research findings (e.g. scientific papers) and principal databases that offer improved knowledge for better understanding of SDS events; these should include, but not be limited to: risk assessments, vulnerability assessments, economic impact assessments, GIS-based approaches (e.g. vulnerability mapping), methodology frameworks found in the UNCCD Compendium and similar UN technical documents.
- 3.3 - Conduct a gap analysis to identify areas of the SDS lifecycle where information is lacking and hence further study is needed; then strive to have scientific research conducted that will ultimately help to fill the gaps identified.
- 3.4 - Identify reasons for lack of implementation of SDS source and impact mitigation practices by key stakeholders including local ones, and make available through the repository (*n.b.* - *this could be conducted in part through a survey of relevant literature*).
- 3.5 - Promote studies to examine SDS impacts from a gender perspective and on livelihoods, including related humanitarian aspects and political risks stemming from SDS.

Having such a comprehensive set of resources/tools in place will provide knowledge-based support for a series of **capacity building** activities, including all of the following:

- 3.6 - Plan and organize trainings at national and regional levels, targeting different government sectors in line with SDS's cross-sectoral nature and multi-disciplinary impacts. This may include capacity building for countries on implementing source-and-impact mitigation measures, strengthening governance and regional cooperation mechanisms, etc.
- 3.7 - Plan and organize multi-disciplinary training programmes, potentially building on and with the support of UNCCD's SDS training modules for National Focal Points and stakeholders, as well as similar materials that may be available from other Coalition members³.
- 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.

This proposed set of capacity building activities at national and regional levels will need to focus on key SDS issues offering a "high return" (in terms of results for investment), and also consider innovative approaches where possible, using pilot activities to test and improve the trainings prior to wider implementation. Also, given the cost of preparing and conducting such trainings, a prioritized list of capacity building requests should be developed and cost-estimated, and then matched with agency/donor funds or within projects as these become available.

³ - UNCCD's SDS training modules focus on how to assess a country's vulnerability to SDS and mitigate the negative impacts, including methodological frameworks for economic impact, risk and vulnerability assessments (*inter alia* transboundary origins and impacts), GIS-based mapping, source and impact mitigation and preparedness strategies, national/regional planning and policies and early warning.

4. Development of a "Plat-forum" for SDS

This section, building on and deriving from (1) to (3), proposes an online "plat-forum" to facilitate awareness-raising and information exchange on SDS for a global audience, as well as a clearinghouse on relevant capacity building activities, present and future. This plat-forum could, for example, take its inspiration from such existing fora as the WMO's SDS Warning Advisory and Assessment System (WAS), the Sendai Global Platform for DRR, and UNEP/GRID's "World Environment Situation Room", while seeking to complement the same with more 'bespoke' SDS content. The following are proposed:

- 4.1 - Develop an online database including assessments/papers/studies/methods & tools relating to sand and dust storms, to be accessible to all SDS Coalition members, affected countries and the general public. The database could reference and draw upon, for example, the U.S. NASA's Land, Atmosphere Near real-time Capability for EOS (LANCE), used to monitor and predict dust storms; UN Data (from WMO; (see e.g. - <http://data.un.org/Data.aspx?d=CLINO&f=ElementCode%3AAJ>); or the European Centre for Medium-range Weather Forecasting's Copernicus Atmosphere Monitoring Service (CAMS; <https://atmosphere.copernicus.eu/>); the network of the EU COST's inDUST project; and other existing databases/networks.
- 4.2 - Allow for a "citizen science" bottom-up approach and real-time reporting as part of the plat-forum, including use of interactive maps and where e.g. citizens could upload pictures and map events and their severity in near-real time (impact assessment); this could be integrated with the proposed SDS forecasting app (*see (2) above*).
- 4.3 - Include in the plat-forum the SDS products (e.g. brochures, instruction kits, newsletters etc.), calendar of events and roadmap to be developed as part of element 2 above, in order to provide access to the broadest set of SDS materials possible to all.
- 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 (*n.b. - such a "register" could be as simple as a regularly maintained Excel file*).

The plat-forum website could be hosted by one of the key UN agencies within the SDS Coalition and overseen by a steering group, that would consult on an agreed frequency to discuss and make decisions about the evolving content and structure of the plat-forum.

5. Fund raising / Resource mobilisation

The set of activities proposed in elements (1) to (4) above is complex and far-reaching, and the achievement of many of these will require significant financial and human resources. While the latter may mostly be found within the members of the SDS Coalition itself and other partners including private/public entities that are willing to invest staff time in SDS-related activities, funding will still be required for many of the proposed activities (info collection, product development, online resources such as the plat-forum, training workshops etc.).

Therefore, this element (5) examines: where to begin the search for financial means necessary (funding pathways relevant to SDS issues); practical considerations in fund-raising; the role of the SDS Coalition as a broker between recipients and providers of financial support; the need for coordinated approaches to potential donor entities; as well as more global requirements (including *inter alia* those of the SDS Coalition itself).

- 5.1 - Begin by defining the set of potential funding entities/mechanisms that can be targeted in resource mobilization efforts. These can include, *inter alia*, the UNCCD's Global Mechanism (which assists countries in the development of projects related to Land Degradation Neutrality), the Global Climate Fund (GCF), the Global Environment Fund (GEF), the UN Fund for South-South Cooperation, the UN Multi-Partner Trust Fund (see - <http://mptf.undp.org/>), the WMO's WAS SDS Trust Fund et al.
- 5.2 - Prepare a series of proposals, ranging from source mitigation to early warning and forecasting and educational/outreach activities, for potential donor funding, and that reflect the highest priority needs of SDS regional partners and affected countries. Include proposals that would support the global activities of the SDS Coalition. Ideally, proposal writing should pair at least one of the Coalition members with a national or regional institution that would be the beneficiary of the support.
- 5.3 - Organize a "donor - recipient workshop" for the SDS 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.
- 5.4 - For any funding proposal that goes forward, identify which of the SDS Coalition members will take the lead in the entire process from the start, as well as in assisting the country/region make contact and follow through with prospective donors.
- 5.5 - Assist regional entities and countries throughout the process of preparing and submitting funding proposals, matching available/potential resources with their defined needs, particularly in terms of SDS capacity building at the national and regional levels.
- 5.6 - Where possible, add value to funding proposals by involving private partners such as weather services, e.g. through creation of SDS private-public partnerships (PPPs).

5.7 - Maintain an active register of funding proposals and their status (e.g. an Excel file).

E. Linkages with the five proposed SDS Working Groups

As part of the terms of reference (ToRs) for the SDS Coalition, and to engage in the four cross-cutting work areas, it was decided to establish five working groups "follow(ing) a disaster risk management and SDS 'lifecycle' approach" (see Figure 1 below). The five working groups are: (1) Adaptation and mitigation; (2) Forecasting and early warning; (3) Health and safety; (4) Policy and governance; and (5) Mediation and regional collaboration.

As they begin operating, the working groups will each have a role to play in the SDS Strategy's implementation; some potential linkages need to be laid out to assure their involvement. To offer just one example, the Health & Safety working group will need to focus on health/safety information and capacity building exercises that provide access to state-of-the-science case studies and knowledge online and in related training exercises for affected countries, etc.

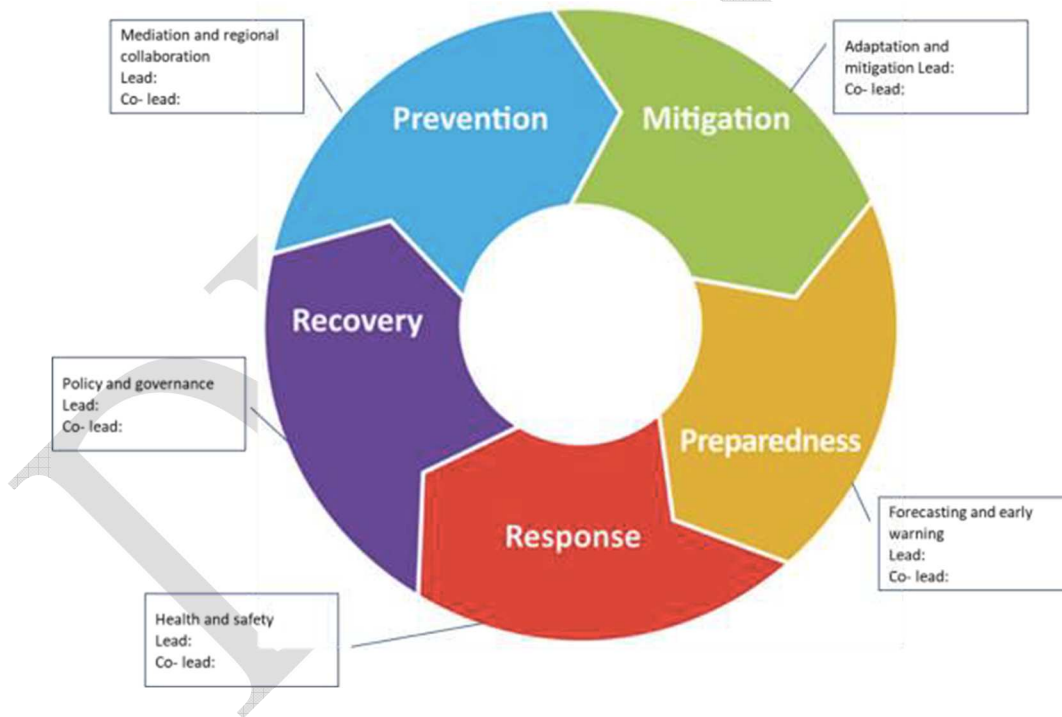


Figure 1. The DRM Lifecycle and proposed related SDS working groups.

The DRM lifecycle consists of five distinct phases, these being: 1) prevention, 2) mitigation, 3) preparedness, 4) response and 5) recovery. Such a lifecycle approach to understanding SDS occurrences, and planning for and responding to the same, allows the global community to prepare interventions within all five phases of the DRM lifecycle, as required to cope most effectively with sand and dust storms across the many regions and countries affected.

The current SDS Coalition draft Strategy is in fact a **fully normative** one, and as such it can be considered "DRM lifecycle neutral", in the sense that all five elements of the Strategy apply equally to and within each of the five DRM phases. Putting it another way, each of the five DRM phases stand to benefit from the proposed activities within each of the five proposed strategic elements, which offer a neutral lens through which to deal with SDS issues.

This can be seen, for example, in a diagramme showing how the five working groups - each covering one of the DRM's five phases - could support the Strategy's implementation via attribution of relevant tasks to all of the working groups, as in the following simple matrix:

Strategy Element: Working Grp. & DRM phase	UN Inter-agency collaboration	Advocacy & Awareness-raising	Exchange of Information and Capacity Building	Development of a "Plat-forum"	Fund raising / Resource Mobilisation
Adaptation & Mitigation "Mitigation"	Chair of each working group participates in all SDS Coalition meetings; reports on working group activities and results; offers to represent Coalition at int'l events.	Each group contributes to a communications strategy and SDS 'app'; offers to develop and provide info products in 'their' realm; and offers events for the SDS calendar.	Each group contributes to nat'l./reg'l. SDS training workshops in 'their' realm; documents research incl. models/tools and relevant studies; and inputs to the gap analysis.	Each group contributes 'its' products to the online SDS data-base; chair of each group sits on steering group of plat-forum; and adds to register of cap. bldg events.	Each group provides its expertise and inputs to relevant fund raising proposals to help assure their scientific validity; offer contacts with likely donor entities.
Forecasting & Early Warning "Preparedness"					
Health & Safety "Response"					
Policy and Governance "Recovery"					
Mediation & Regional collaboration "Prevention"					

Such an approach to implementing the SDS Strategy with support from the Coalition's working groups could be periodically revisited and adjusted as work progresses, and to recognize clear strengths and preferences of certain working groups under the various elements.

F. Cross-cutting activities for the SDS Coalition: a jump start to "quick wins"

As an initial boost to the Strategy, it is proposed that the SDS Coalition consider undertaking a few cross-cutting activities or projects that would assure concrete, high-visibility results during

the first year of implementation, and which would offer a powerful message to both affected countries and potential donors. Such an activity or project could focus on a trans-boundary SDS issue affecting several countries within the SDS belt (a universal issue, such as improved early warning and forecasting of SDS events⁴), or a more local SDS-related phenomenon (such as reforestation exercises⁵ or more sustainable agricultural practices at the village level), and could involve two or more Coalition members/partners, including the affected countries.

The high-impact results of such a project could be provided to multiple countries as quickly as possible. If a single effective project were "fast-tracked" and provided clearly useful results, it could not only serve as an outstanding example of inter-agency collaboration, including with affected countries, but its success could also considerably aid in fund-raising activities.

The members of the SDS Coalition would need to agree on what SDS issue to address with such an effort and decide how to take it forward by the end of the current year, including source(s) for funding the selected activity or project. A consensus could be sought in online exchanges and accepted/endorsed by the next Senior Officials' Meeting later in (*month*) 2019.

G. Conclusions/Summary

This *draft* Strategy proposes a "five-point plan" and a related series of activities and outputs under each of the five points for achieving the objectives of the SDS Coalition. The Coalition begins with the great advantages of the UN's convening power and its system-wide capability to spread key messages on sand and dust storms globally, regionally and at the national level. In addition, given the broad mandate of the SDS Coalition, it is ideally placed to become the authoritative voice on sand and dust storms in a global context, and to bring together other IGOs, civil society, the academic/research community and the private sector in addressing SDS issues in a coherent way, and in facilitating contacts between donors and affected countries.

If the current SDS Coalition works together in an effective and steadfast manner to achieve the elaborated set of activities and outputs, it should make major progress towards its self-defined objectives, raise the profile of SDS-related issues on the international agenda, and also provide effective support to countries and regions in preparing for, coping with and reducing the impacts of sand and dust storms world-wide.

ANNEX I: draft "Action Plan" for implementing the Strategy

⁴ - Perhaps along the lines of early warning/forecasting work being done by SDS WAS regional centres.

⁵ - Perhaps along the lines of the current "great green wall" projects in Africa and China.

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