

The scope of work undertaken on slow onset events (SOEs) as reported by partners in the SOEs database

February 2018

Background Information

Slow onset events (SOEs), as initially introduced by the Cancun Agreement (COP16),¹ refer to the risks and impacts of the following events: increasing temperatures; desertification; loss of biodiversity; land and forest degradation; glacial retreat and related impacts; ocean acidification; sea level rise; and salinization.



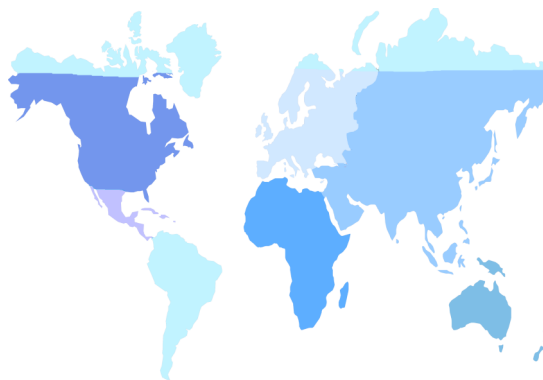
In dealing with the growing risks associated with climate change, the strategic workstream (a) of the five-year rolling plan, seeks to 'enhance cooperation and facilitation in relation to slow onset events'. Activity 1(b) of this workstream focuses on assessing the scope of work undertaken on SOEs as reported by partners in the SOEs database.²

Initially, this database was developed by the Excom under Action Area 3 of its initial two-year workplan. The activity is aimed at taking stock of organizations that are working on SOEs and the scope of their current efforts. The database is being updated on a rolling basis,³ and as of December 2017, it contains information on 164 organizations.

About this document

This document provides a review of the scope of work being undertaken on SOEs as reported by partners in the SOEs database to date.

Each chapter presents an overview for a geographic region for which organizations reported their efforts and work on SOEs, namely: Asia; Africa; Caribbean and Central America; Europe; Pacific/Oceania; Polar regions; North America; and South America.



The categorization of the scope of work used for assessing the work of the organizations is consistent with that used in the SOEs Database which draws upon decision 3/CP.18. The scope of work is clustered under the function areas of the Loss and Damage Mechanism. Selected examples of efforts to address SOEs are included (see below).

Disclaimer

It is important to note that this document draws upon information of 164 organizations as contained in the SOEs database thus does not cover the entire spectrum of scope of work being undertaken on SOEs. As a result, quantitative information is presented based on what organizations have reported, including types of organizations and types of SOEs that their work address.

¹Decision1/CP.16, Paragraph 25.

² The SOEs database is available at <http://www4.unfccc.int/sites/NWP/Pages/soesearch.aspx>

³ Relevant organizations are requested to fill in the template available at <http://unfccc.int/9430>.

Function Area 1 (F1): Enhancing knowledge and understanding

- * Data collection and management
- * Assessment
- * Design of approaches

Function Area 2 (F2): Strengthening dialogue, coordination, coherence

- * Communication and outreach
- * Stakeholder engagement

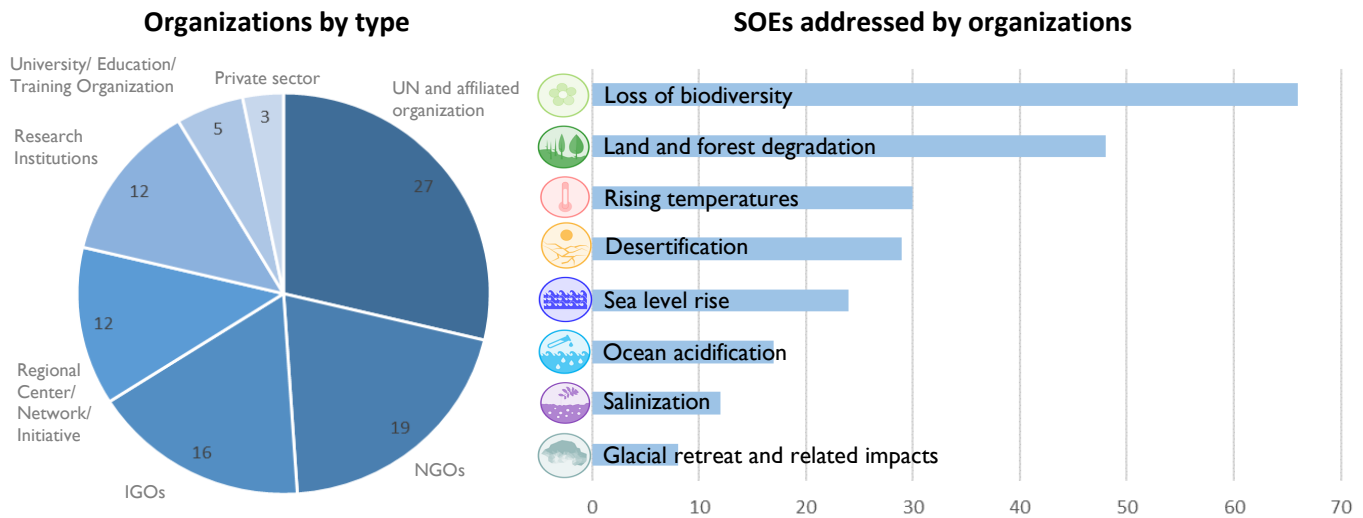
Function Area 3 (F3) Enhancing action and support

- * Implementation and support
- * Investment

Annex 1-8 provide a graphical representation of the quantitative analysis of data as reported by organizations in the SOEs database.

Organizations working on slow onset events, as reported in the database, in **AFRICA**

94 organizations included in the SOEs database are working on slow onset events in **Africa**.



*Majority of organizations have indicated multiple SOEs

Efforts focusing on enhancing knowledge and understanding

- ◇ 83 organizations reported efforts focusing on enhancing knowledge and understanding.
- ◇ The efforts focused *mostly* on loss of biodiversity as well as land and forest degradation.
- ◇ The efforts *focused least* on salinization as well as glacial retreat and related impacts.

Assessment	<p>17%-23% of organizations reported that their efforts focused on the assessment of the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>Intergovernmental Science-Policy Platform on Biodiversity and Ecosystems (IPBES)</i> identifies drivers resulting in the degradation of biodiversity and its functions in order to provide policy-relevant options to policy makers in Africa. • <i>African Risk Capacity (ARC)</i> provides strategic guidance to governments by assessing the adverse effects of loss of biodiversity and increasing temperatures.
Data collection and management	<p>9%-18% of organizations reported that their efforts focused on data collection of the SOEs impacts.</p> <ul style="list-style-type: none"> • <i>Desert Research Centre (DRC)</i> monitors the causes of desertification with field operations stretching from Sinai to the fringes of the High Dam Lake in Egypt. • <i>Observatory for Forests of Central Africa (OFAC)</i> develops tools for information management on the state and evolution of central African forests ecosystems and biodiversity. • <i>Integrated Environmental Consultants Namibia (IECN)</i> developed a postgraduate academic programme that facilitates the Integrated Land Management.
Design of approaches	<p>14%-27% of organizations reported that their efforts focused on designing approaches to addressing the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>Okavango Research Institute (ORI)</i> develops educational strategies to promote sustainable environmental management in Botswana and hosts the Okavango Delta Monitoring & Forecasting System that provides an interactive display of data and maps for water, climate, rainfall, floods and fire. • <i>Sabin Center for Climate Change Law at Columbia Law School</i> develops legal techniques to address, e.g. impacts of rising seas and coastal retreat.

Efforts focusing on strengthening dialogue, coordination and coherence

- ◇ 68 organizations reported efforts focusing on strengthening dialogue, coordination and coherence.
- ◇ The efforts focused *mostly* on loss of biodiversity as well as land and forest degradation.
- ◇ The efforts *focused least* on ocean acidification, salinization as well as glacial retreat and related Impacts.

<i>Communication, outreach and stakeholder engagement</i>	<p>14%-18% of organizations reported that their efforts focused on communication and outreach; 15%-24% of organisations reportedly focus on stakeholder engagement to address the impacts of SOEs.</p> <ul style="list-style-type: none">• <i>Agriculture, Hydrology, Meteorology Regional Centre</i> (AGRHYMET) collaborates with bilateral and multilateral agencies and engages in international meetings on the fight against desertification.• <i>Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organisation</i> (IOC—UNESCO) coordinates programmes in marine research and capacity development in order to effectively manage the resources of the ocean and coastal areas.• <i>Global Framework for Climate Services</i> (GFC) mobilizes support from donor countries and partner institutions to advance the use of climate services and implemented the Climate Services Adaptation Programme in Africa.• <i>CARIBSAVE Partnership</i> and <i>the University of Cape Town</i> lead the climate adaptation communications and provide technical input to local participatory vulnerability assessments.• The <i>United Nations Economic Commission for Africa - African Climate Policy Centre</i> (UNECA) initiatives national and regional networks and an African panel on climate change to enhance knowledge on issues such as desertification and increasing temperatures.• <i>Desertification and Desert Cultivation Studies Institute</i> (DADCSI) collaborates with governmental and non-governmental institutions to raise public awareness of the threats of desertification.
---	---

Efforts focusing on enhancing action and support

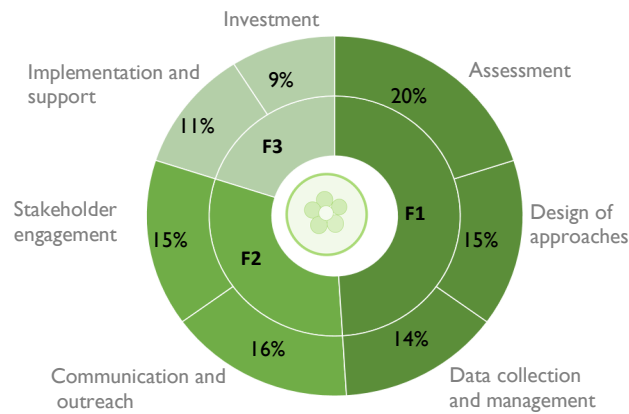
- ◇ 44 organizations reported efforts focusing on enhancing action and support.
- ◇ The efforts focused *mostly* on loss of biodiversity as well as land and forest degradation.
- ◇ The efforts *focused least* on ocean acidification, salinization as well as glacial retreat and related Impacts.

<i>Investment</i>	<p>0%-10% of organizations reported that their efforts focused on investment to address the SOEs.</p> <ul style="list-style-type: none">• <i>African Development Bank</i> (AFDB) developed Strategy of Climate Risk Management and Adaptation to reduce the continent's vulnerability to climate change issues such as desertification and increasing temperatures.• <i>Global Index Insurance Facility</i> (GIIF) supports the implementation of Kilimo Salama that markets weather, area yield, and livestock index insurance products covering a wide range of crops and dairy cattle in Sub-Saharan Africa.• <i>Critical Ecosystem Partnership Fund</i> (CEPF) focuses on conserving the planet's most biologically diverse and threatened ecosystems, the biodiversity hotspots, by investing in multiple countries such as Algeria, Tunisia and Zimbabwe.
<i>Implementation and support</i>	<p>0%-11% of organizations reported that their efforts focus on implementation and support to address the impacts of SOEs.</p> <ul style="list-style-type: none">• <i>Institute for Sustainable Development</i> (ISD) promotes activities in Ethiopia focusing on the link between cultural diversity and biodiversity through sharing experiences, open dialogue, research and training,• The <i>Observatory for the Sahara and Sahel</i> (OSS) improves member countries' monitoring capabilities on multiple SOEs, e.g. desertification and increasing temperatures.

Annex 2 Scope of work addressing SOEs reported by partners in the SOE database (AFRICA)

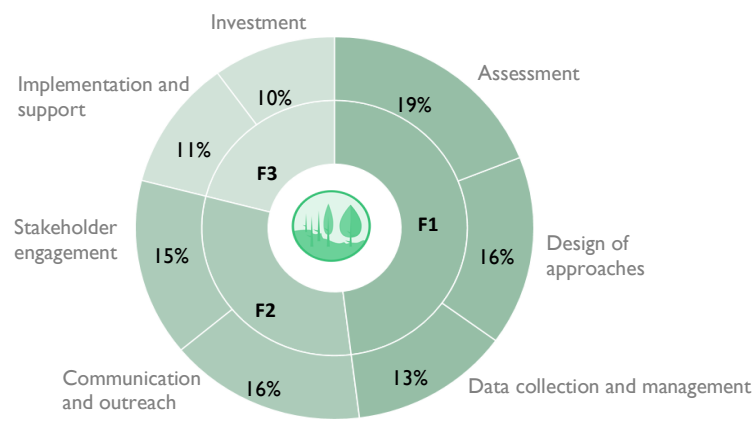
Organization respondents recognize the following SOEs as highly relevant to their work (in order of frequency):

1. Loss of biodiversity

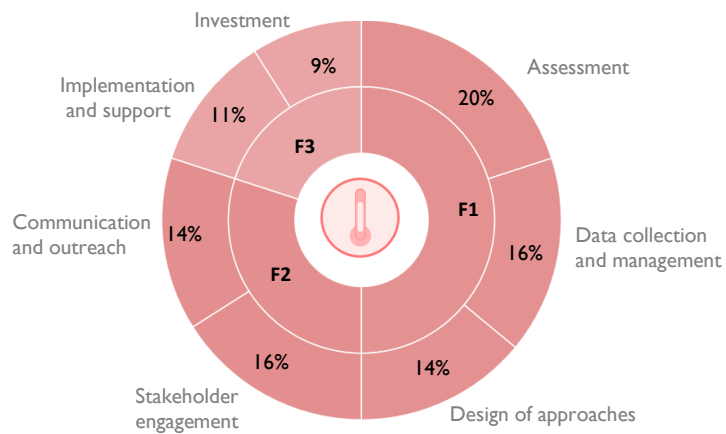


Function Area 1 (F1)
Function Area 2 (F2)
Function Area 3 (F3)

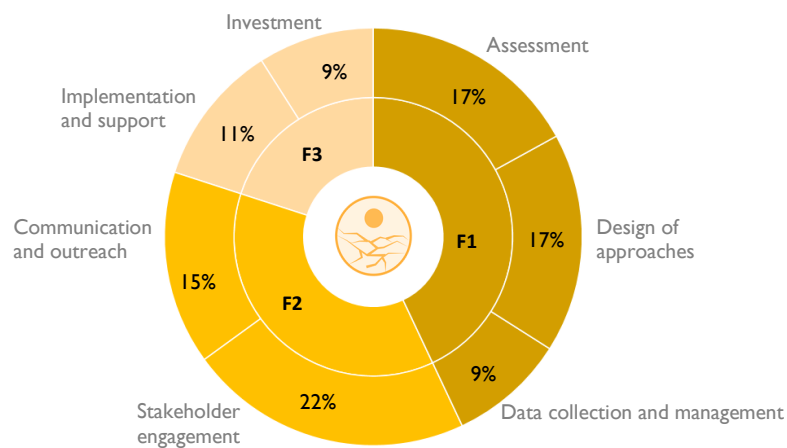
2. Land and forest degradation



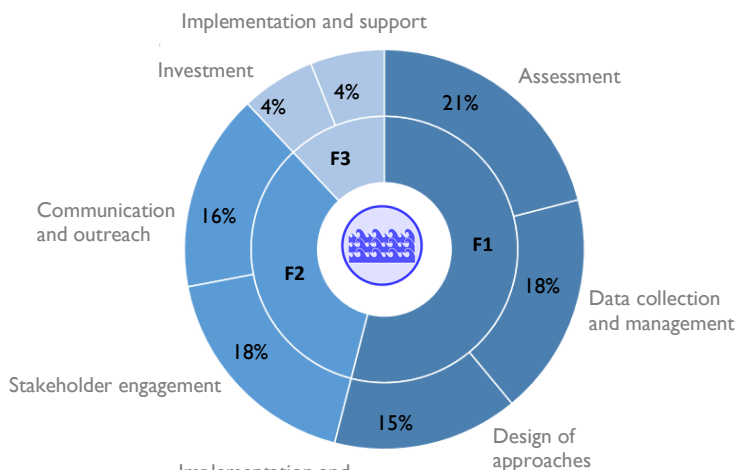
3. Rising temperatures



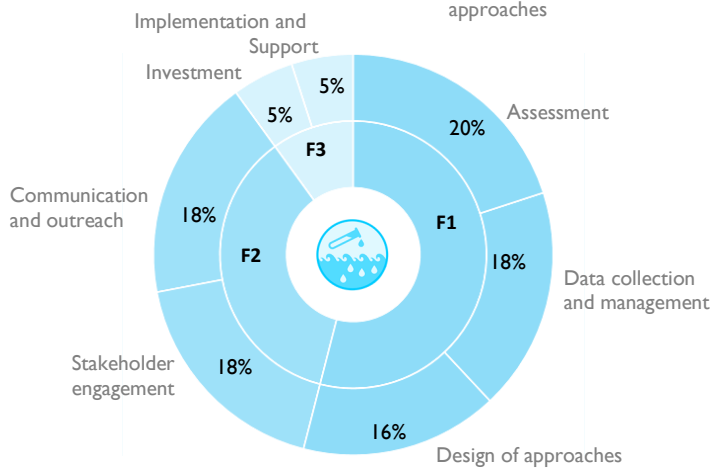
4. Desertification



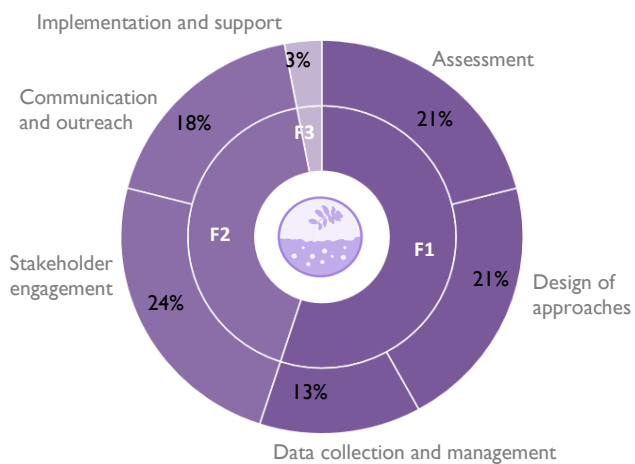
5. Sea level rise



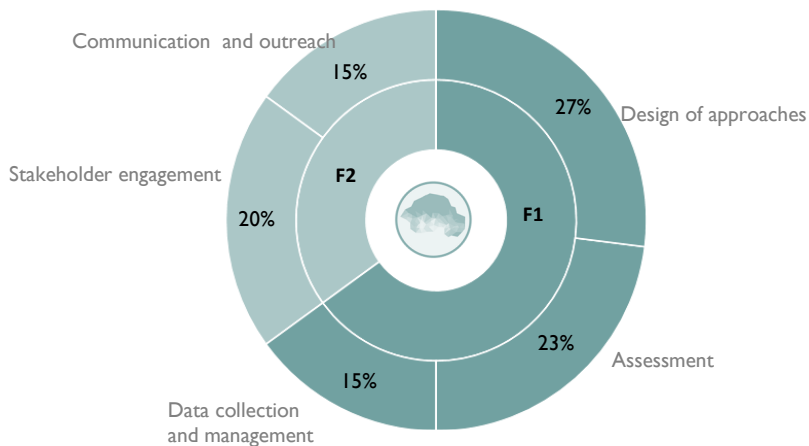
6. Ocean acidification



7. Salinization

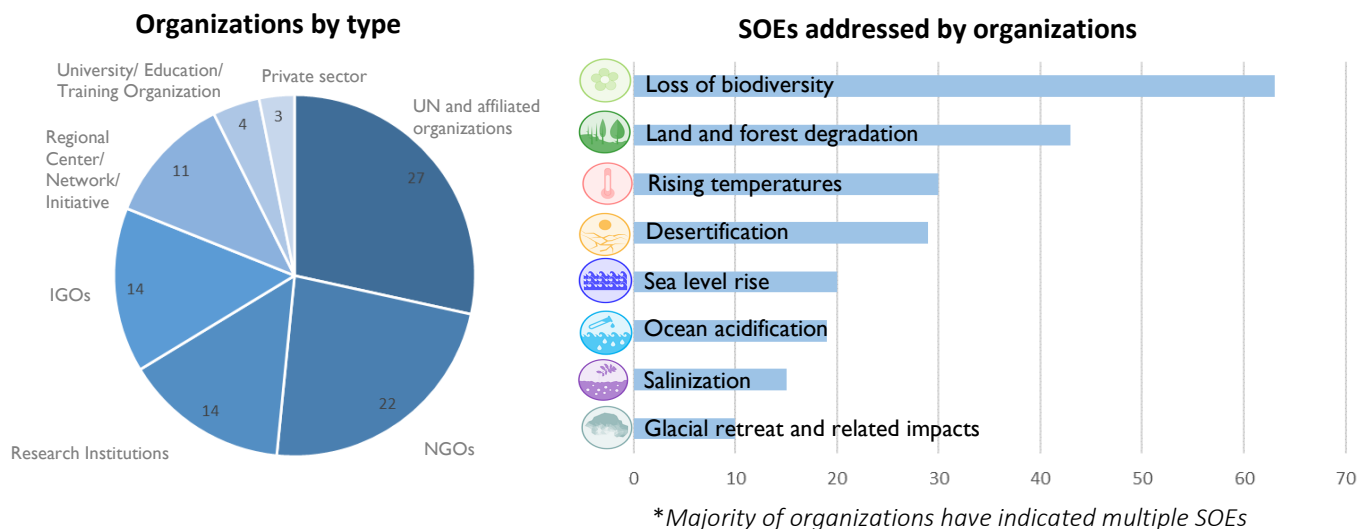


8. Glacial retreat and related impacts



Organizations working on slow onset events, as reported in the database, in the geographic region of ASIA

95 organizations included in the SOEs database are working on slow onset events in Asia.



Efforts focusing on enhancing knowledge and understanding

- ◇ 84 organizations reported efforts which focused on the enhancement knowledge and understanding.
- ◇ The efforts focused *mostly* on loss of biodiversity as well as land and forest degradation.
- ◇ The efforts focused *least* on glacial retreat and related impacts.

Assessment	<p>18%-21% of organizations reported that their efforts focus on the assessment of the impacts of SOEs.¹</p> <ul style="list-style-type: none"> • The <i>United Nations University (UNU) Institute for Environment and Human Security (UNUEHS)</i> assesses impacts of land-degradation on the social-ecological systems in Asia. • The <i>Committee on Science and Technology (CST)</i> under the <i>United Nations Convention to Combat Desertification (UNCCD)</i> reviews data on desertification and drought to assesses their impact through appropriate sub-regional, regional and national institutions.
Data collection and management	<p>11%-24% of organizations reported that their efforts focus on data collection of the SOEs impacts.</p> <ul style="list-style-type: none"> • The <i>Biodiversity Research Centre, Academia Sinica</i> integrates biodiversity database in Taiwan on biological systematics, preservation and restoration. • The <i>Global Ocean Observing System</i> observes and analyses marine and ocean variables to support operational ocean services worldwide. • <i>Future Earth</i> collects data, such as species richness and degree of endemism, to describe freshwater species diversity. • The <i>International Center for Agricultural Research in the Dry Areas (ICARDA)</i> uses remote sensing and field surveying to manage soil salinization and create salinity maps. • The <i>International Centre for Integrated Mountain Development (ICIMOD)</i> developed the Cryosphere Initiative that monitors glaciers and snow in the Hindu Kush Himalayas.
Design of approaches	<p>14%-21% of organizations reported that their efforts focus on designing approaches to addressing the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>Centro Internacional de Agricultura Tropical (CIAT)</i> conducts sustainable management of staple foods in Asia, amongst other regions, by providing a reference manual to local farmers. • The <i>Center for International Forestry Research (CIFOR)</i> designs participatory development approaches on the renewable resources management of tropical forests in Asia.

¹ This percentage range draws upon the information provided in Annex 1. Specifically, among organizations addressing land and forest degradation (or rising temperatures, salinization, glacial retreat and related impacts), 21% of them reported efforts on 'assessment'; among organizations addressing loss of biodiversity (or sea level rise), 20% reported efforts on 'assessment'; among organizations addressing ocean acidification (or desertification), 18% reported efforts on 'assessment'.

Efforts focusing on strengthening dialogue, coordination and coherence

- ◇ 63 organizations reported efforts focusing on strengthening dialogue, coordination and coherence.
- ◇ The efforts focused *mostly* on loss of biodiversity as well as land and forest degradation.
- ◇ The efforts focused *least* on salinization as well as glacial retreat and related impacts.

<i>Communication, outreach and stakeholder engagement</i>	<p>14%-18% of organizations reported that their efforts focused on communication and outreach; 12%-24% of organisations reportedly focus on stakeholder engagement to address the impacts of SOEs.</p> <ul style="list-style-type: none">• <i>Mekong River Commission (MRC)</i> works directly with governments in the region, on the maintenance of biodiversity in the shared Mekong River.• <i>International Union for Conservation of Nature (IUCN)</i> engages a Bangladeshi power generator to ensure the protection of the threatened Gangs River Dolphins.• <i>Partnerships in Environmental Management for the Seas of East Asia (PAMSEA)</i> provides customized services to governments across the region regarding the sustainable development of coastal and marine areas.• <i>International Union of Soil Sciences (IUSS)</i> collaborates with scientific journals and provides forum for soil scientists to better support and apply soil science.• <i>United Nations Convention to Combat Desertification (UNCCD)</i> seeks to combat desertification and mitigate the effects of drought through national action programs that incorporate long-term strategies supported by international cooperation and partnership arrangements.
---	--

Efforts focusing on enhancing action and support

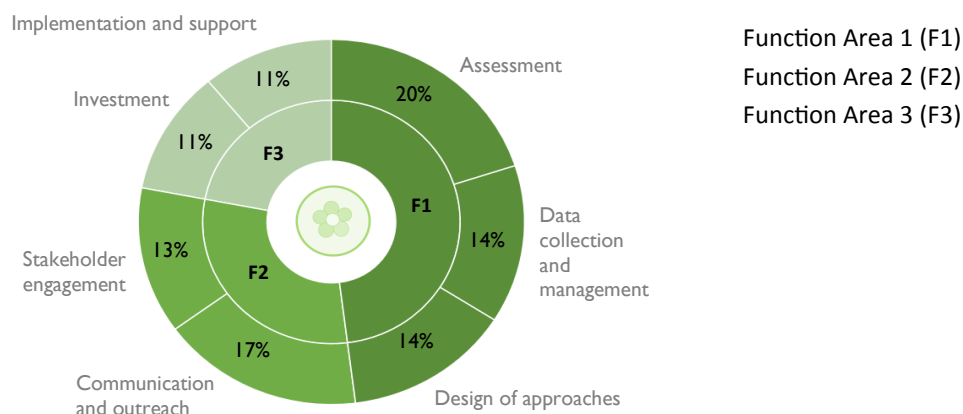
- ◇ 43 organizations reported efforts focusing on enhancing action and support.
- ◇ The efforts focused *mostly* on loss of biodiversity as well as land and forest degradation.
- ◇ The efforts focused *least* on salinization as well as glacial retreat and related impacts.

<i>Investment</i>	<p>0%-11% of organizations reported that their efforts focused on investment to address the SOEs.</p> <ul style="list-style-type: none">• <i>MicroEnsure</i> provides affordable crop insurance with automatic pay-outs by using data from automated weather stations.• <i>Asian Development Bank (ADB)</i> approved over \$13 billion of climate financing (2011-2014) and has funded multiple projects in Asia, such as the ongoing Jalalpur Irrigation Project in Pakistan to reduce land degradation.• No investment has been reported to address salinization as well as glacial retreat and related impacts.
<i>Implementation and support</i>	<p>3%-11% of organizations reported that their efforts focused on the implementation and support to address the impacts of SOEs.</p> <ul style="list-style-type: none">• <i>Centre for Agriculture and Biosciences International (CABI)</i> conducted a pilot project in India to build capacity for directly planted rice by developing a scalable system of plant health management.• <i>International Center for Agricultural Research in the Dry Areas (ICARDA)</i> works with farmers and water managers in central and west Asia to manage soil salinization and support salinized agriculture.• <i>International Centre for Integrated Mountain Development (ICIMOD)</i> monitors the glaciers, snow, glacial lakes and glacio-hydrology with an emphasis on in-situ measurements, remote sensing and modelling.

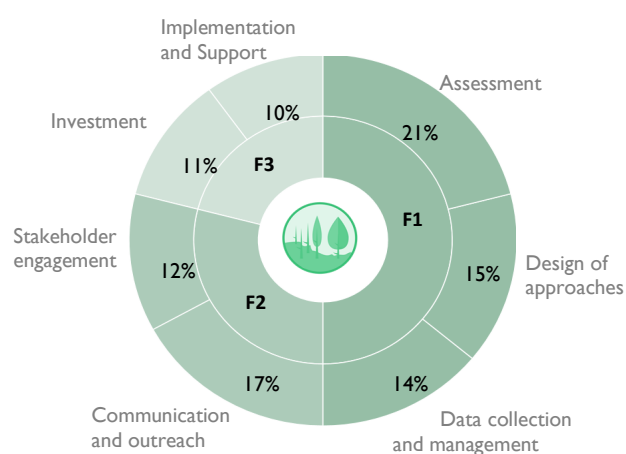
Annex 1 Scope of work addressing SOEs reported by partners in the SOE database (ASIA)

Organization respondents recognize the following SOEs as highly relevant to their work (in order of frequency):

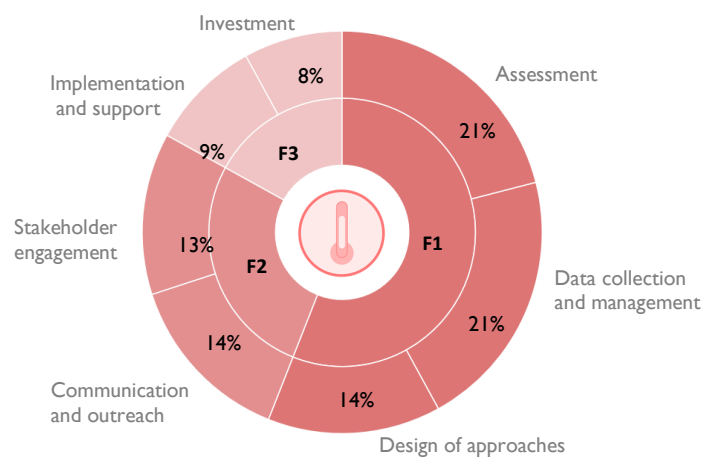
1. Loss of biodiversity



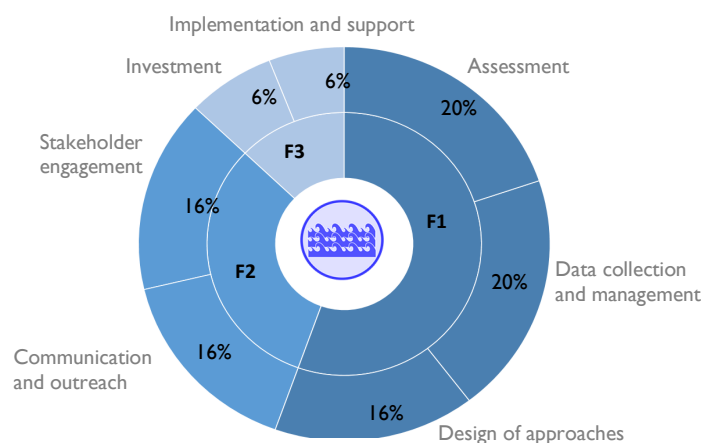
2. Land and forest degradation



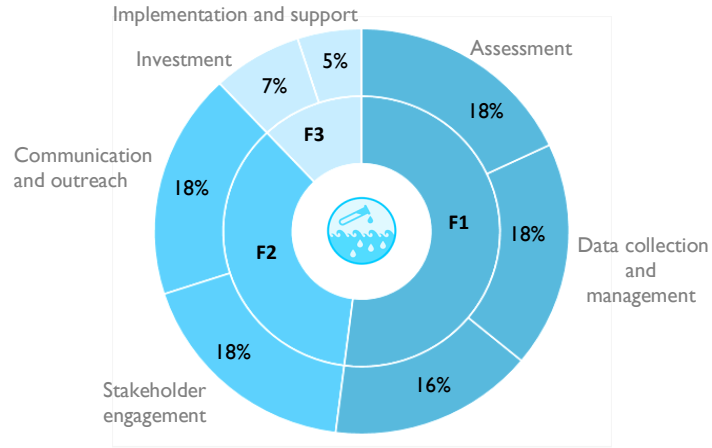
3. Rising temperatures



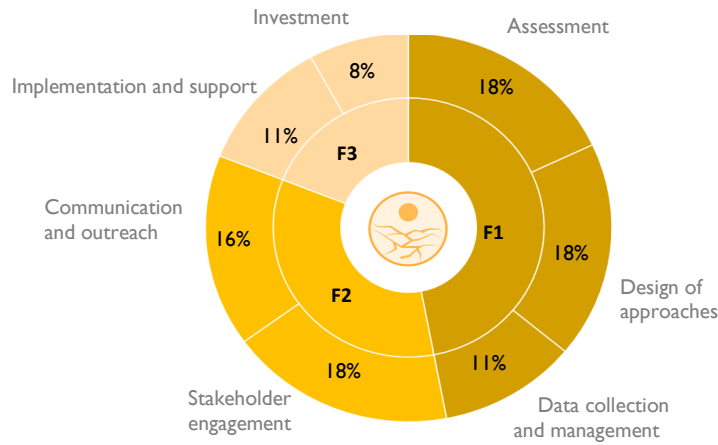
4. Sea level rise



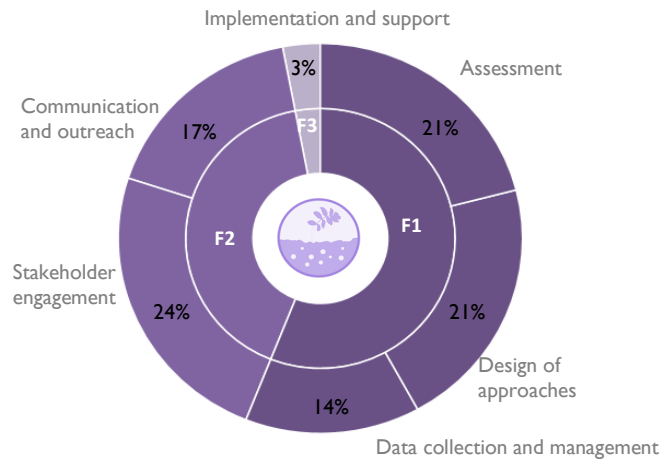
5. Ocean acidification



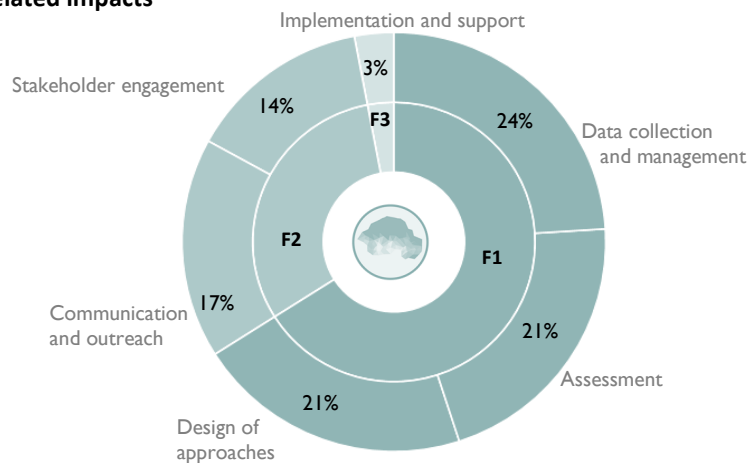
6. Desertification



7. Salinization

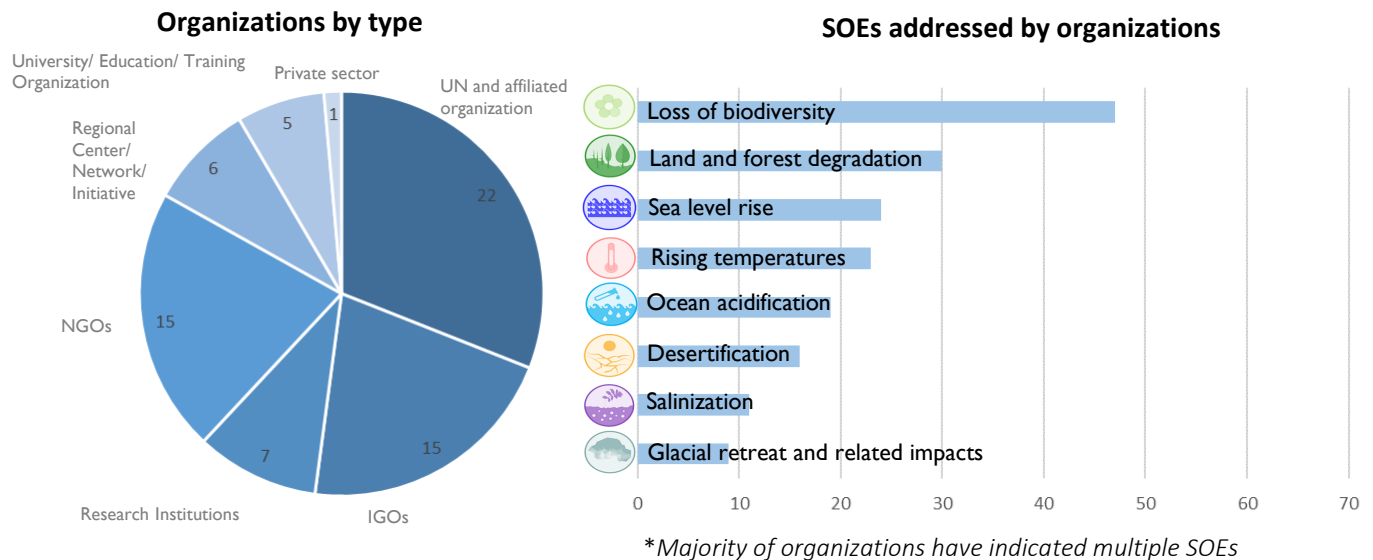


8. Glacial retreat and related impacts



Organizations working on slow onset events, as reported in the database, in **CARIBBEAN AND CENTRAL AMERICA**

71 organizations included in the SOEs database are working on slow onset events in **Caribbean and Central America**



Efforts focusing on enhancing knowledge and understanding

- ◇ 63 organizations reported efforts focusing on enhancing knowledge and understanding.
- ◇ The efforts focused *mostly* on loss of biodiversity, land and forest degradation as well as sea level rise.
- ◇ The efforts *focused least* on salinization as well as glacial retreat and related impacts.

Assessment	<p>15%-20% of organizations reported that their efforts focused on the assessment of the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>Economics of Ecosystems and Biodiversity (TEEB)</i> enhances awareness of a wide range of benefits of ocean and coastal biodiversity in the Caribbean by drawing together expertise from the fields of science, economics and policy to evaluate the growing cost of biodiversity loss and ecosystem degradation. • <i>Center for International Forestry Research (CIFOR)</i> developed the African-Caribbean-Pacific Forest Research Network and conducts forest-related research that is directly applicable for the sustainable management of humid tropical forests.
Data collection and management	<p>10%-19% of organizations reported that their efforts focused on data collection of the SOEs impacts.</p> <ul style="list-style-type: none"> • <i>Caribbean Community Climate Change Centre</i> is an official repository and clearing house providing regional climate change data on sea level rise and ocean acidification. • <i>Surging Seas</i> integrates scientifically peer-reviewed climate research and provides surging seas maps, graphics and information such as Risk Zone Map that shows areas vulnerable to permanent submergence from sea level rise. • <i>Migration, Environment and Climate Change - Evidence for Policy Project</i> focuses on building evidence for policy-making on the relationship between migration and slow onset events such as sea level rise and lake level rise in multiple countries including the Dominican Republic and Haiti.
Design of approaches	<p>13%-23% of organizations reported that their efforts focused on designing approaches to addressing the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>United Nations Economic Commission for Latin America and the Caribbean (ECLAC)</i> developed DaLA Methodology that uses the national accounts and statistics of the country government as baseline data to assess damage and loss associated with various SOEs.

Efforts focusing on strengthening dialogue, coordination and coherence

- ◇ 51 organizations reported efforts focusing on strengthening dialogue, coordination and coherence.
- ◇ The efforts focused *mostly* on loss of biodiversity as well as land and forest degradation.
- ◇ The efforts *focused least* on ocean acidification, salinization as well as glacial retreat and related impacts.

Communication and outreach and stakeholder engagement	<p>14%-22% of organizations reported that their efforts focused on communication and outreach; 14%-24% of organisations reportedly focus on stakeholder engagement to address the impacts of SOEs.</p> <ul style="list-style-type: none">• <i>CARIBSAVE (INTASAVE Caribbean)</i> brings together specialist knowledge, project management expertise, convening power and innovation to strengthen Climate Change Resilience in Caribbean Coastal Communities.• <i>Intergovernmental Science Policy Platform and Ecosystem Services</i> improves the science-policy interface for biodiversity and ecosystem services by creating platforms for exchange and review of relevant assessments in the Caribbean.• <i>International Organization for Migration (IOM)</i> developed an innovative partnership with the Secretariat of the <i>UN Convention to Combat Desertification</i>, focusing on engaging Diasporas in sustainable land management projects and initiatives and developing innovative financial mechanisms to support such initiatives in areas of origin exposed to land degradation.• <i>International Union of Soil Science (IUSS)</i> aims to avoid or mitigate soil salinization by organizing workshops for soil scientists and facilitating in-depth discussions on critical issues such as temporal and spatial variation of salinity, modelling of irrigation under risk of salinization and reuse of saline and drainage waters.
--	--

Efforts focusing on enhancing action and support

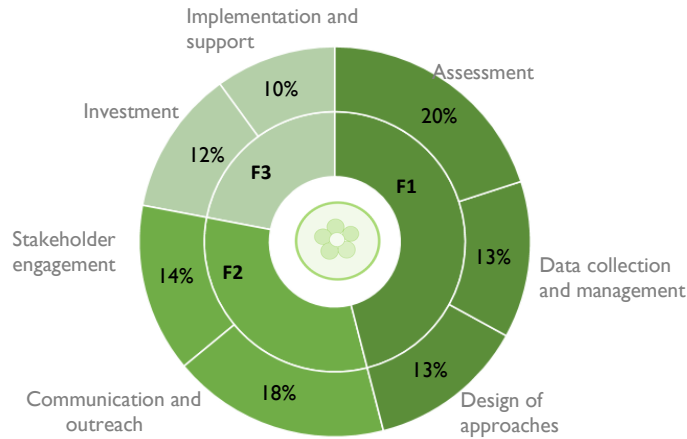
- ◇ 37 organizations reported efforts focusing on enhancing action and support.
- ◇ The efforts focused *mostly* on loss of biodiversity as well as land and forest degradation.
- ◇ The efforts *focused least* on salinization as well as glacial retreat and related impacts.

Investment	<p>0%-12% of organizations reported that their efforts focused on investment to address the SOEs.</p> <ul style="list-style-type: none">• <i>Caribbean Development Bank</i> provides grants to Caribbean Community Climate Change Centre for the establishment of an information clearinghouse by, for example, procuring hardware and software to improve data storage as well as providing short-term specialized services and initial operational support.• <i>Consultative Group on International Agricultural Research</i> provides strategic financing to support agricultural research. It conducts Research Program on Water, Land and Ecosystems and promotes ecosystem resilience by providing farmers and pastoralists with systems that are better adapted to climate change.
Implementation and support	<p>0%-19% of organizations reported that their efforts focused on implementation and support to address the impacts of SOEs.</p> <ul style="list-style-type: none">• <i>Caribbean Catastrophe Risk Insurance Facility</i> provided support to assess strategies for linking the ECLAC Damage and Loss Assessment Methodology to the Post Disaster Needs Assessment by, e.g., identifying specific areas of information which could serve as common data links.• <i>Caribbean Institute for Meteorology and Hydrology</i> provides periodical support to member states of Caribbean Meteorological Organization by assessing hydro-meteorological events to determine the nature of the damage, its cause, the return period of the event (data permitting) and solutions to mitigate future damage and loss in the affected communities.

Annex 5 Scope of work addressing SOEs reported by partners in the SOE database (Caribbean)

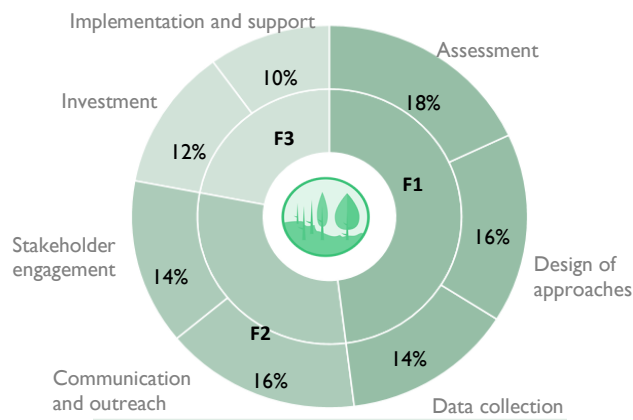
Organization respondents recognize the following SOEs as highly relevant to their work (in order of frequency):

1. Loss of biodiversity

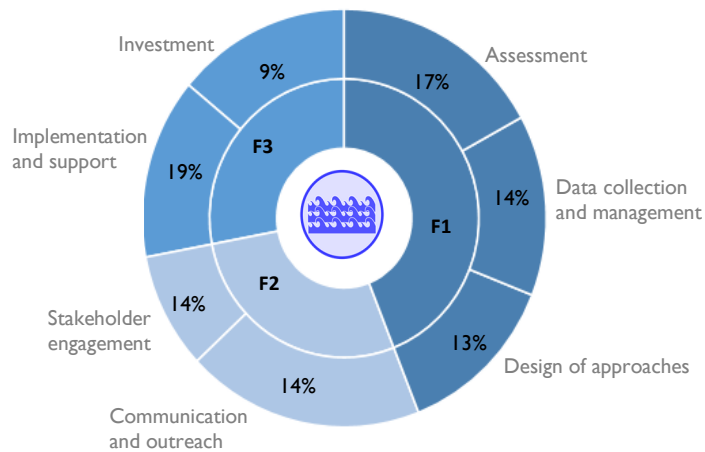


Function Area 1 (F1)
Function Area 2 (F2)
Function Area 3 (F3)

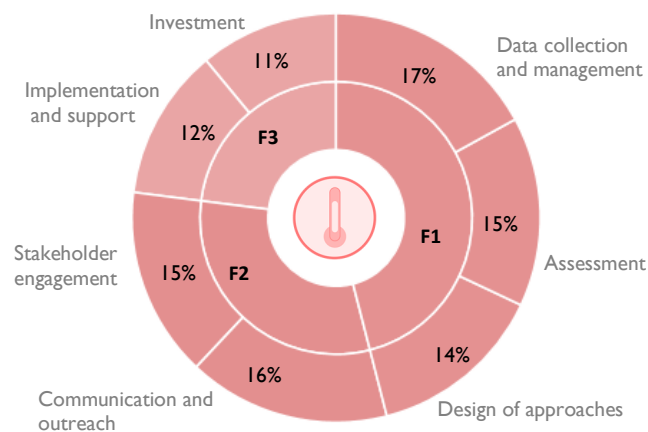
2. Land and forest degradation



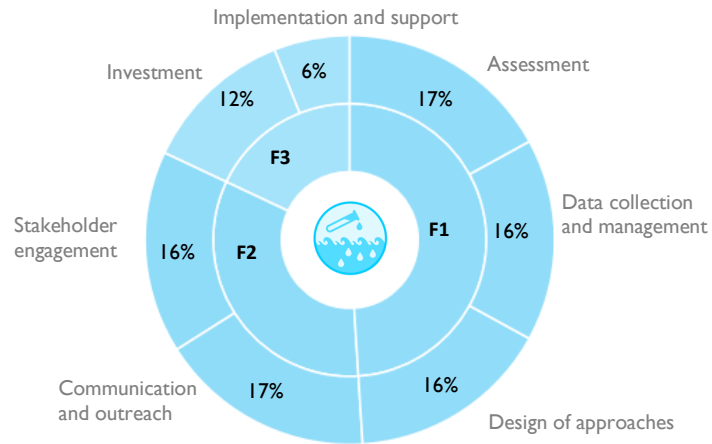
3. Sea level rise



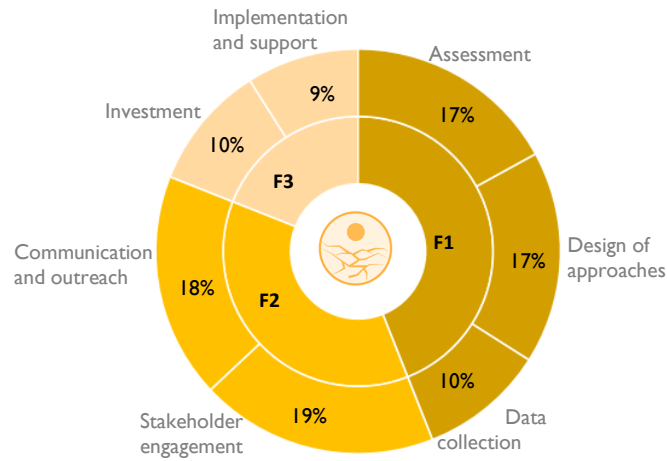
4. Rising temperatures



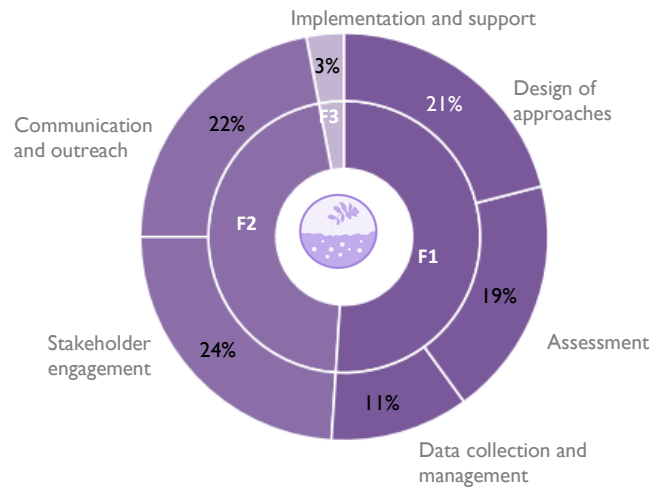
5. Ocean acidification



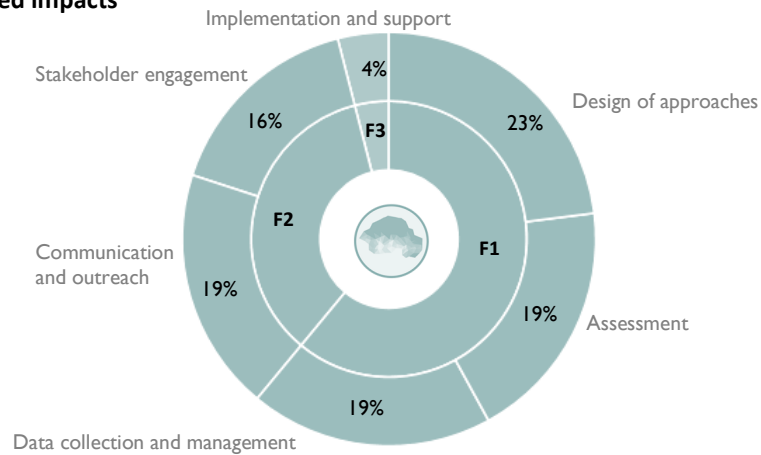
6. Desertification



7. Salinization

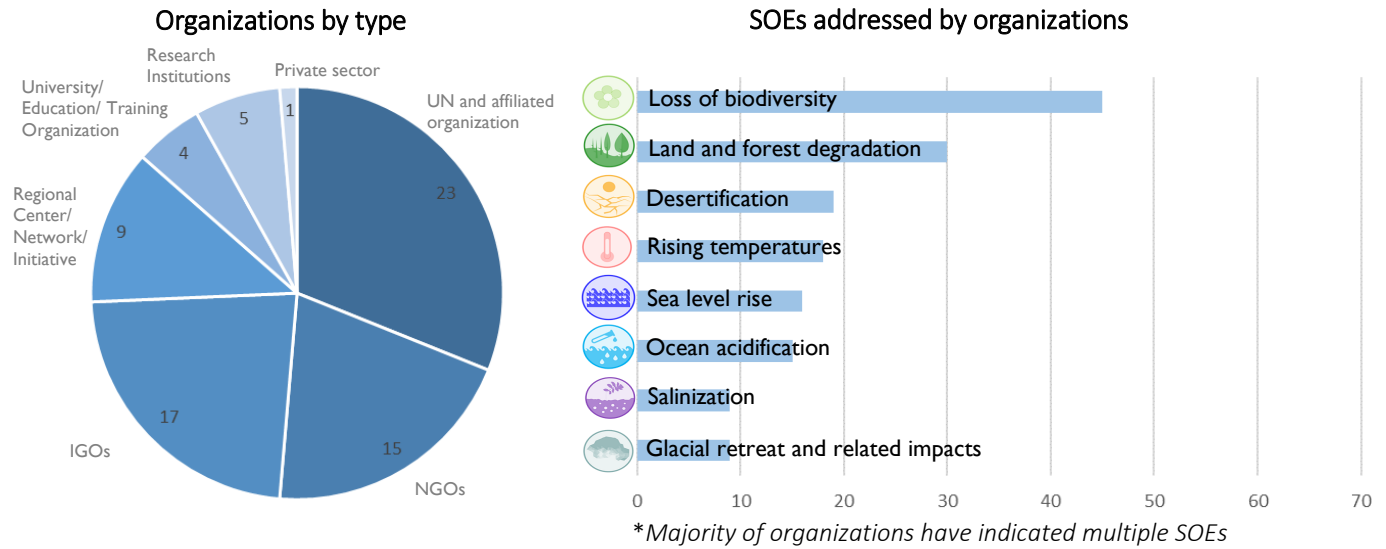


8. Glacial retreat and related impacts



Organizations working on slow onset events, as reported in the database, in EUROPE

74 organizations included in the SOEs database are working on slow onset events in **Europe**.



Efforts focusing on enhancing knowledge and understanding

- ◇ 65 organizations reported efforts focusing on enhancing knowledge and understanding.
- ◇ The efforts focused *mostly* on loss of biodiversity as well as land and forest degradation.
- ◇ The efforts *focused least* on salinization as well as glacial retreat and related impacts.

Assessment	<p>18%-24% of organizations reported that their efforts focus on the assessment of the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>Desertification Research Centre</i> promotes multidisciplinary research and studies on the causes and processes of desertification and environmental degradation in the Mediterranean region. • <i>Economics of Land Degradation Initiative (ELD)</i> assesses and highlights the economic benefits of land and land based ecosystems by providing a global approach for analysis of the economics of land degradation and thus increasing political and public awareness of economic costs and benefits of healthy and productive land. • <i>DesertNet International Association (DNI)</i> generates and enhances knowledge and understanding of the biophysical and socio-economic processes of desertification. It responds to demands for assessment and information needs and translates knowledge into laymen's terms to improve public awareness of desertification as well as its costs and implications.
Data collection and management	<p>14%-23% of organizations reported that their efforts focused on data collection of the SOEs impacts.</p> <ul style="list-style-type: none"> • <i>Global Earth Observation System of Systems</i> is an international public infrastructure using land, sea, air and space-based earth observation systems to provide comprehensive environmental data, information and analysis. It also accommodates new systems such as the observation components of Europe's Global Monitoring for Environment and Security initiative. • The <i>European Soil Data Centre (ESDAC)</i> applies advanced modelling techniques and scenario analyses to provide soil information to European end users in relation to the major threats to soil identified in the Thematic Strategy for Soil Protection such as salinization and loss of soil biodiversity.
Design of approaches	<p>14%-24% of organizations reported that their efforts focused on designing approaches to addressing the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>Alfred Wegener Institute</i> conducts research in the North Sea and adjacent coastal regions in Germany and explores nearly all aspects of the Earth system from the atmosphere to the ocean floor using innovative approaches. • <i>Anatrack Ltd</i> built the Naturalliance portal and combines the use of science and mapping to forecast how the riches of nature will change as land and climate changes across Europe.

Efforts focusing on strengthening dialogue, coordination and coherence.

- ◇ 54 organizations reported efforts focusing on strengthening dialogue, coordination and coherence.
- ◇ The efforts focused *mostly* on loss of biodiversity as well as land and forest degradation.
- ◇ The efforts *focused least* on sea level rise, ocean acidification, salinization as well as glacial retreat and related impacts.

<i>Communication, outreach and stakeholder engagement</i>	<p>16%-21% of organizations reported that their efforts focused on communication and outreach; 11%-17% of organisations reportedly focus on stakeholder engagement to address the impacts of SOEs.</p> <ul style="list-style-type: none">• <i>Secretariat of the Convention on the Conservation of Migratory Species of Wild Animals (CMS)</i> provides a global platform for the conservation and sustainable use of migratory animals and their habitats. It brings the States (e.g. in Europe) through which migratory animals pass together with the Range States and lays the legal foundation for internationally coordinated conservation measures throughout a migratory range.• <i>European Forest Institute (EFI)</i> conducts workshops, summer school, seminars and the Joensuu Forestry Networking Week which brings together scientists, policy makers and professionals with the aim of enhancing forest research and providing decision makers with unbiased forest-related information at a pan-European level.• <i>Institute of Marine Research, Norwegian Biodiversity Information Centre and Norwegian Zoological Society</i> are collaborating on a website by involving the general public to report the species of fish that they come across, in particular the rarely observed species. Observations are quality assured by Institute of Marine Research (on marine species, anadromous and catadromous fish) and Norwegian Zoological Society (on freshwater fish).• The <i>Soil Conservation Service of Iceland</i> involved about 20% of the nation's sheep farmers and a number of other land users to participate in the soil conservation work under the theme – 'Farmers Heal the Land'. It also cooperates with organizations and volunteers to restore the damaged ecosystems and soil resources.
---	--

Efforts focusing on enhancing action and support

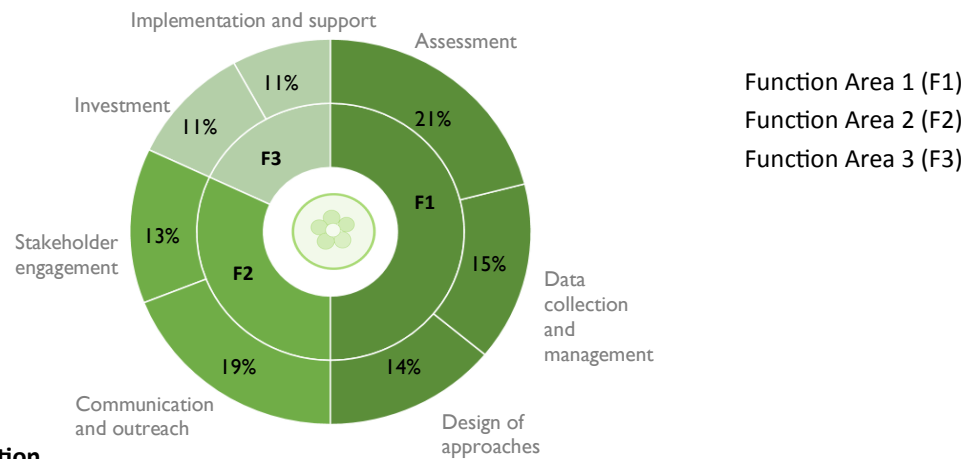
- ◇ 32 organizations reported efforts focusing on enhancing action and support.
- ◇ The efforts focused *mostly* on loss of biodiversity.
- ◇ The efforts *focused least* on salinization as well as glacial retreat and related impacts.

<i>Investment</i>	<p>0%-11% of organizations reported that their efforts focused on investment to address the SOEs.</p> <ul style="list-style-type: none">• <i>World Bank</i> manages the <i>Programme on Forests</i> by financing sustainable forest management, improving the livelihoods of forest-dependent people, enhancing forest governance and coordinating forest policy with other sectors in multiple regions such as Africa, Asia and Europe.• <i>International Fund for Agricultural Development (IFAD)</i> launched <i>Adaptation for Smallholder Agriculture Programme</i> and channels climate finance to smallholder farmers to facilitate their access to the information tools and technologies that help build their resilience to climate change in multiple regions (Europe included).
<i>Implementation and support</i>	<p>0%-12% of organizations reported that their efforts focus on implementation and support to address the impacts of SOEs.</p> <ul style="list-style-type: none">• The <i>Land Restoration Training programme</i> in Iceland provides guidance and leadership to all who can provide land care. It is also an official part of the <i>United Nations University</i> offering training to developing countries in capacity development in restoration of degraded land and sustainable land management.• <i>Secretariat of the Carpathian Convention (SCC)</i> promotes the development of national and transnational ecological networks working on field of biodiversity, on the basis of scientific knowledge and assessment of the state of biodiversity, within the Carpathian region including Czech Republic, Hungary, Poland, Romania, Serbia, Slovakia and Ukraine.

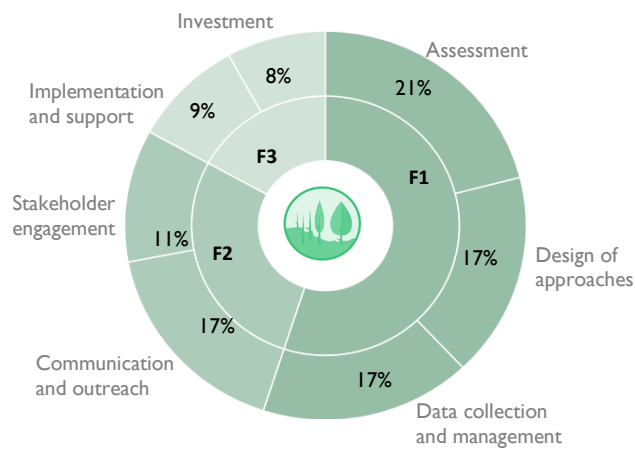
Annex 3 Scope of work addressing SOEs reported by partners in the SOE database (EUROPE)

Organization respondents recognize the following SOEs as highly relevant to their work (in order of frequency):

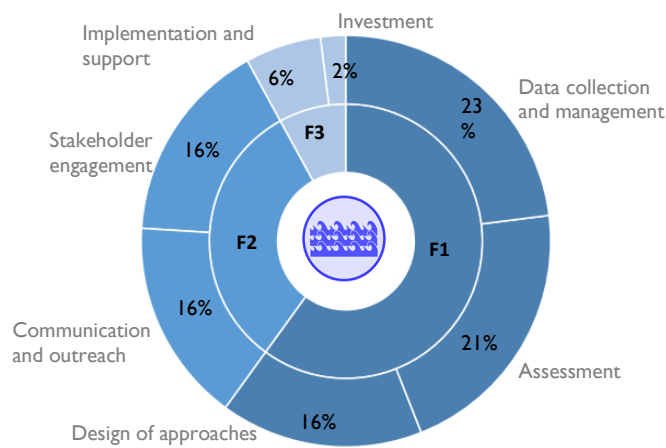
1. Loss of biodiversity



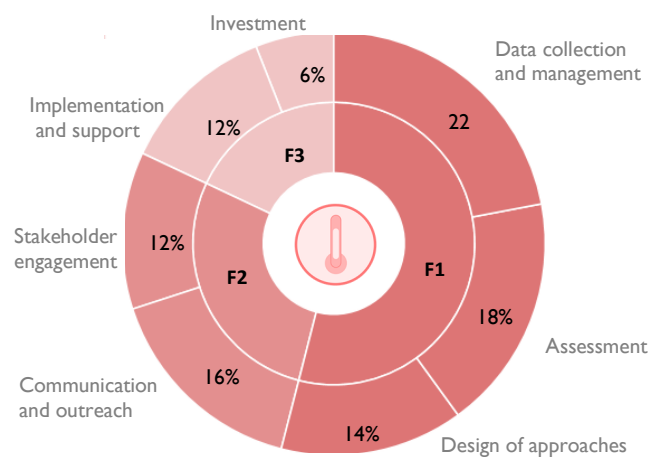
2. Land and forest degradation



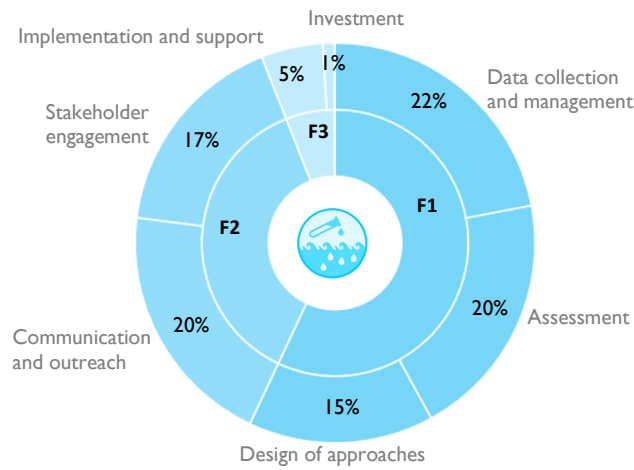
3. Sea level rise



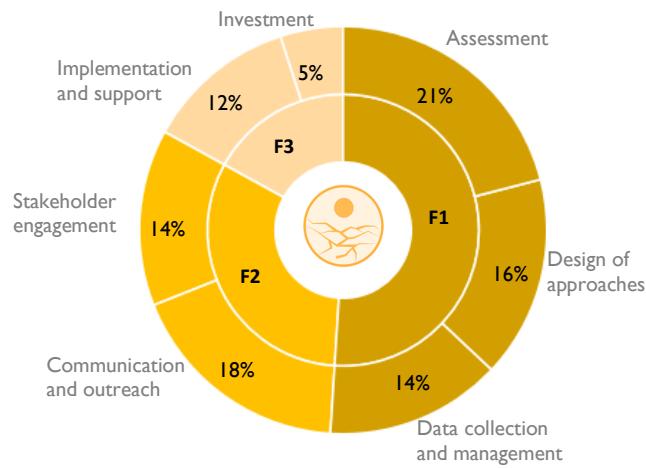
4. Rising temperatures



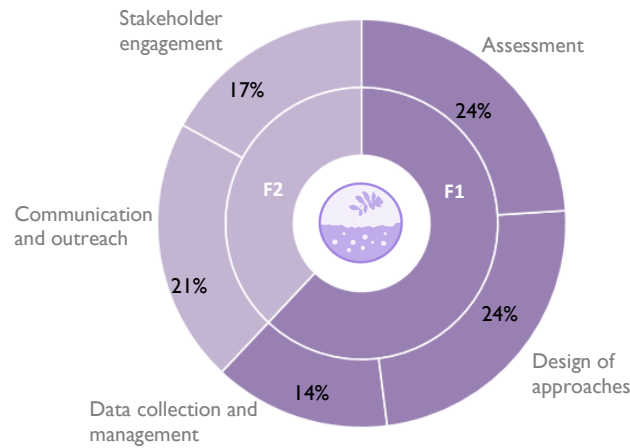
5. Ocean acidification



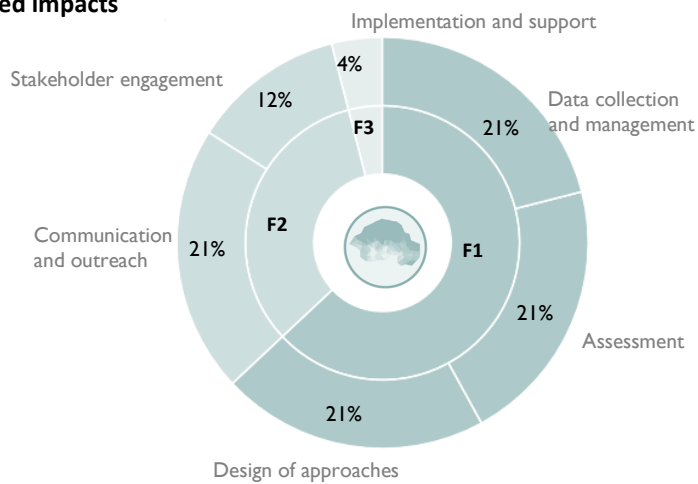
6. Desertification



7. Salinization

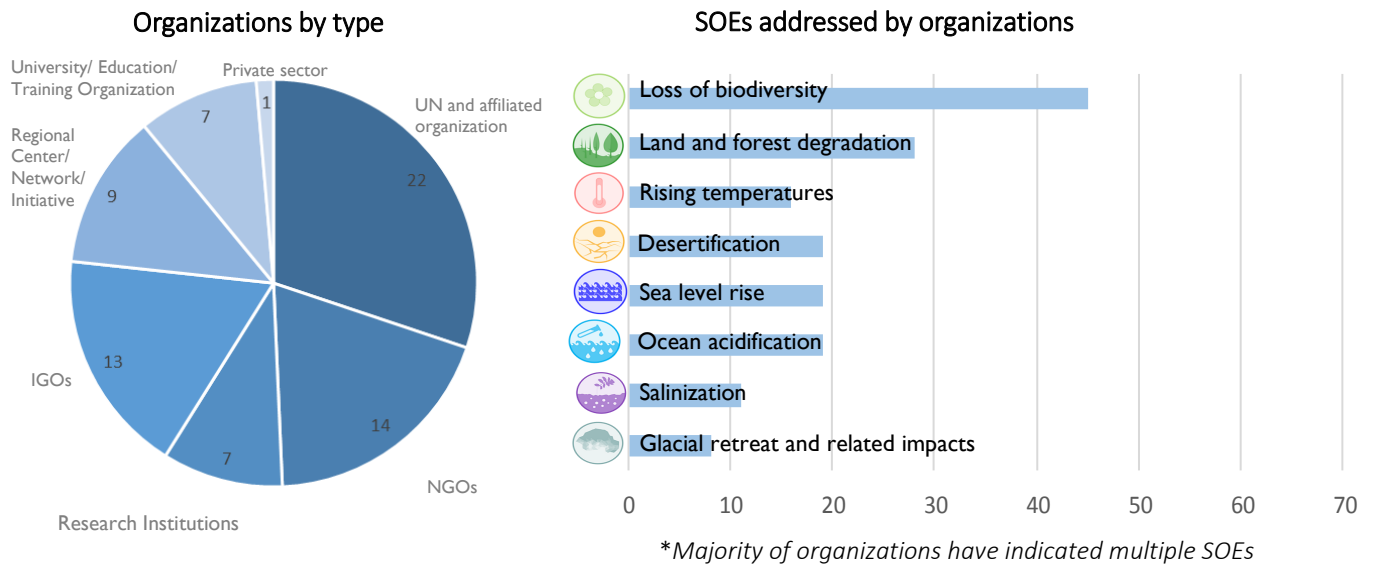


8. Glacial retreat and related impacts



Organizations working on slow onset events, as reported in the database, in **NORTH AMERICA**

73 organizations included in the SOEs database are working on slow onset events in **North America**.



Efforts focusing on enhancing knowledge and understanding

- ◇ 65 organizations reported efforts focusing on enhancing knowledge and understanding.
- ◇ The efforts focused *mostly* on loss of biodiversity and land and forest degradation.
- ◇ The efforts *focused least* on desertification, glacial retreat and related impacts and salinization.

Assessment	<p>16%-22% of organizations reported that their efforts focused on the assessment of the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>Inter-American Institute for Global Change Research (IAI)</i> examined the occurrence of droughts and its relation to the decrease in hurricane activity on the Pacific coast of Mexico. • <i>The Economics of Land Degradation (ELD) Initiative</i> assesses the socio-economic and environmental dimensions of land degradation and developed a series of reports summarizing final conclusions and guidelines.
Data collection and management	<p>14%-25% of organizations reported that their efforts focused on data collection of the SOEs impacts.</p> <ul style="list-style-type: none"> • <i>NASA's Earth Observing System Data and Information System</i> collects and distributes data on the cryosphere (frozen ground, glaciers/ice sheets, sea ice, snow/ice), land (frozen ground, land temperature, soils, land use/land cover), ocean (ocean chemistry, ocean temperature, sea ice, salinity) as well as atmosphere and human dimensions. • <i>Lamont-Doherty Earth Observatory's Office of Marine Operations</i> operates a federally funded research ship. It provides both 2D and 3D maps of the earth's structure miles below the seafloor that can be used to collect sediment cores for understanding climate variations throughout the Earth's history. Sample seawater is also collected for determining physical and chemical properties of the oceans. • <i>Global Biodiversity Information Facility (GBIF)</i> is the biggest biodiversity database on the internet. It provides biodiversity information freely and is universally available for science, society and a sustainable future. Its informatics architecture provides an open platform to connect and access biodiversity databases around the world. • The <i>Canadian Network of Northern Research Operators (CNNRO)</i> collects arctic data and provides the infrastructure with facilities such as oceanographic research vessels, seasonal field stations and un-staffed remote monitoring installations representing every major ecological region in Canada's North.

<i>Design of approaches</i>	<p>12%-24% of organizations reported that their efforts focused on designing approaches to addressing the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>Columbia Climate Center (CCC)</i> applies multidisciplinary approach to sustainable development by integrating basic and applied research in climate science, engineering, public health, economics, social science and political science throughout Columbia University. • The <i>International Union for Conservation of Nature (IUCN)</i> focuses on valuing and conserving nature, ensuring effective and equitable governance of its use and deploying nature-based solutions to global challenges in climate (e.g. loss of biodiversity).
-----------------------------	--

Efforts focusing on strengthening dialogue, coordination and coherence

- ◇ 55 organizations reported efforts focusing on strengthening dialogue, coordination and coherence.
- ◇ The efforts focused *mostly* on loss of biodiversity.
- ◇ The efforts *focused least* on desertification, salinization as well as glacial retreat and related impacts.

<i>Communication, outreach and stakeholder engagement</i>	<p>16%-26% of organizations reported that their efforts focused on communication and outreach; 10%-16% of organisations reportedly focus on stakeholder engagement to address the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>Washington Ocean Acidification Center</i> connects researchers, policymakers and industry across Washington to advance the science of ocean acidification and provide a foundation for proactive strategies and policies to protect marine ecosystems. • <i>GRID-Arendal</i> collaborates with UNEP to support informed decision-making and awareness-raising through environmental information management and assessment, capacity building services and outreach and communication tools. • <i>United Nations Forum on Forest (UNFF)</i> initiated Collaborative Partnership on Forests and cooperates with the global forest community by undertaking studies to identify the parameters of forest degradation and the best practices for assessment. • <i>Joint Technical Commission for Oceanography and Marine Meteorology (JCOMM)</i> provides a mechanism for international coordination of oceanographic and marine meteorological observing, data management and services between the meteorological and oceanographic communities. This is done by, for example, combining the expertise and technological capabilities of <i>World Meteorological Organization</i> and <i>UNESCO's Intergovernmental Oceanographic Commission</i>.
---	---

Efforts focusing on enhancing action and support

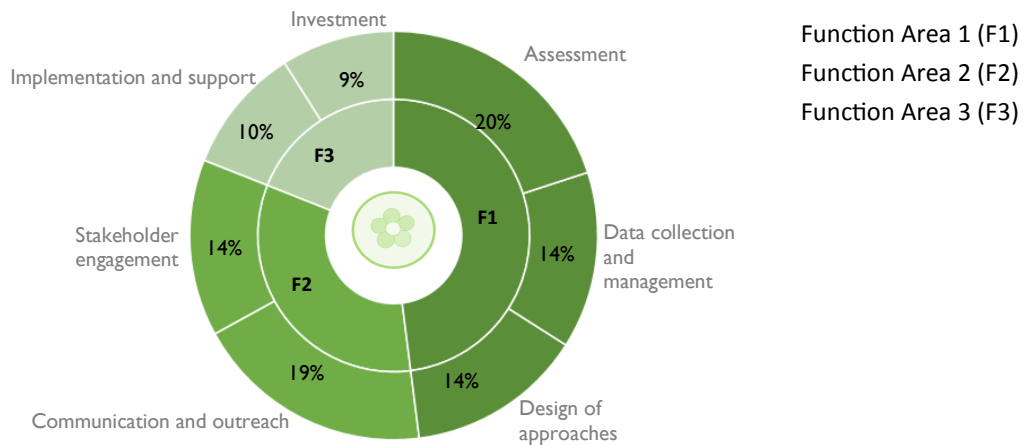
- ◇ 31 organizations reported efforts focusing on enhancing action and support.
- ◇ The efforts focused *mostly* on loss of biodiversity.
- ◇ The efforts *focused least* on glacial retreat and related impacts and salinization.

<i>Investment</i>	<p>0%-9% of organizations reported that their efforts focused on investment to address the SOEs.</p> <ul style="list-style-type: none"> • <i>Critical Ecosystem Partnership Fund (CEPF)</i> targets the conservation of biodiversity hotspots in developing countries (for example, Mexico) and provides grants to civil society to participate in and influence the conservation of biodiversity. • <i>World Wildlife Fund</i> promotes <i>Payments for Environmental Services (PES)</i> for financing freshwater ecosystem services and saving biodiversity such as Marine Protected Areas Fund that is already working for the Mesoamerican Barrier Reef.
<i>Implementation and support</i>	<p>0%-13% of organizations reported that their efforts focused on implementation and support to address the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>Canadian Network of Northern Research Operators</i> facilitates financial and logistical support for northern researchers by working with federal departments and agencies, territorial governments as well as national and regional organizations. • <i>United Nations Forum on Forest (UNFF) Collaborative Partnership on Forests (CPF)</i> facilitates national governments' access to capacity development for forest financing by identifying gaps, obstacles and opportunities to finance Sustainable Forests Management.

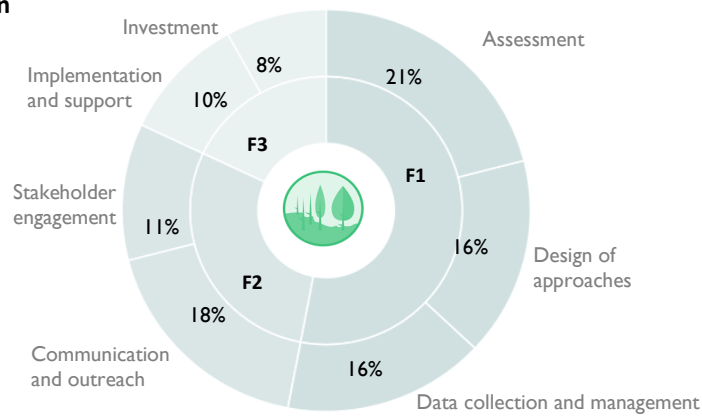
Annex 4 Scope of work addressing SOEs reported by partners in the SOE database (North America)

Organization respondents recognize the following SOEs as highly relevant to their work (in order of frequency):

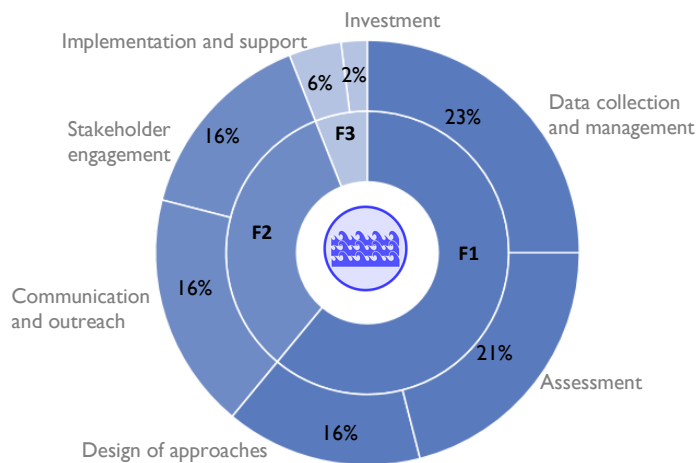
1. Loss of biodiversity



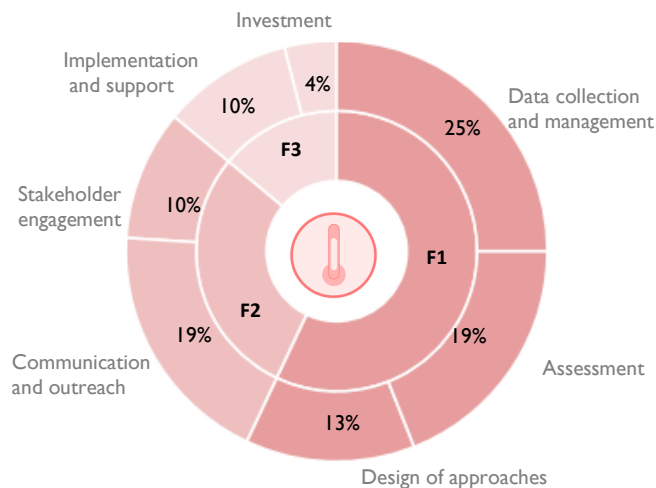
2. Land and forest degradation



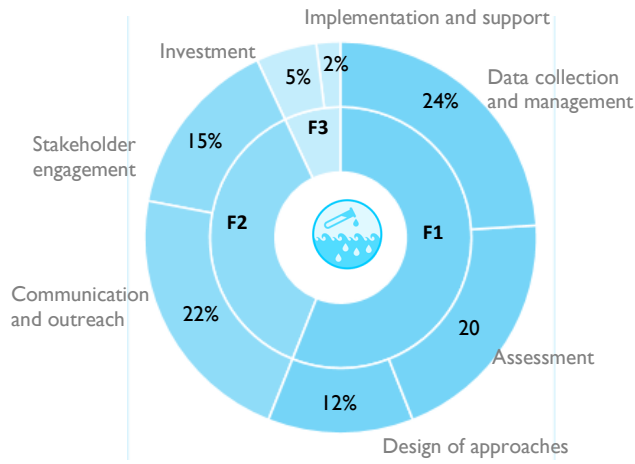
3. Sea level rise



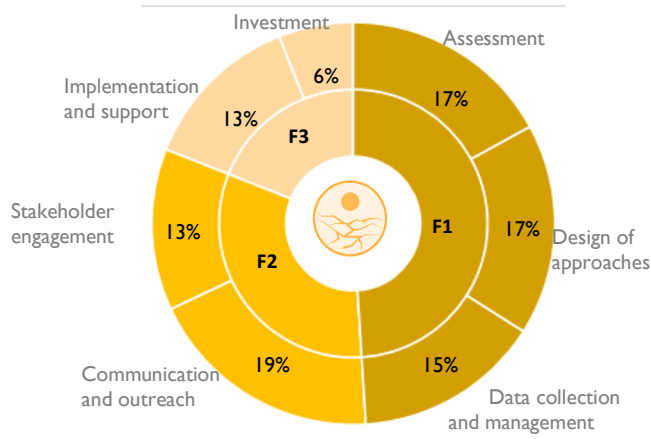
4. Rising temperatures



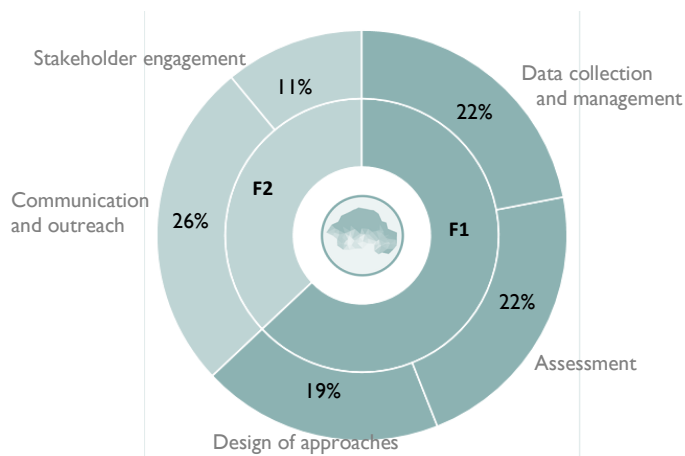
5. Ocean acidification



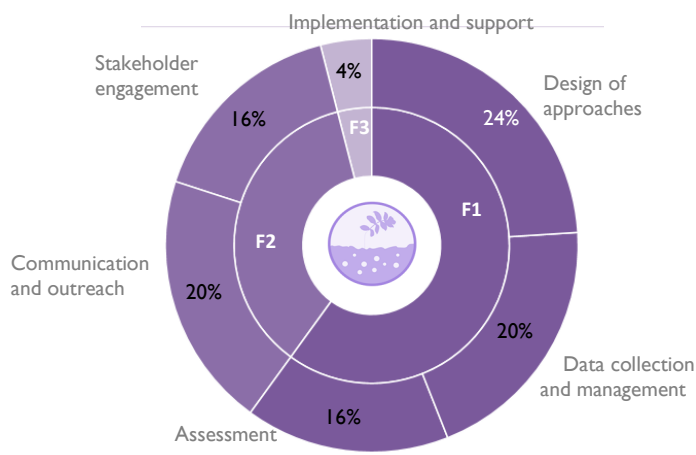
6. Desertification



7. Glacial retreat and related impacts

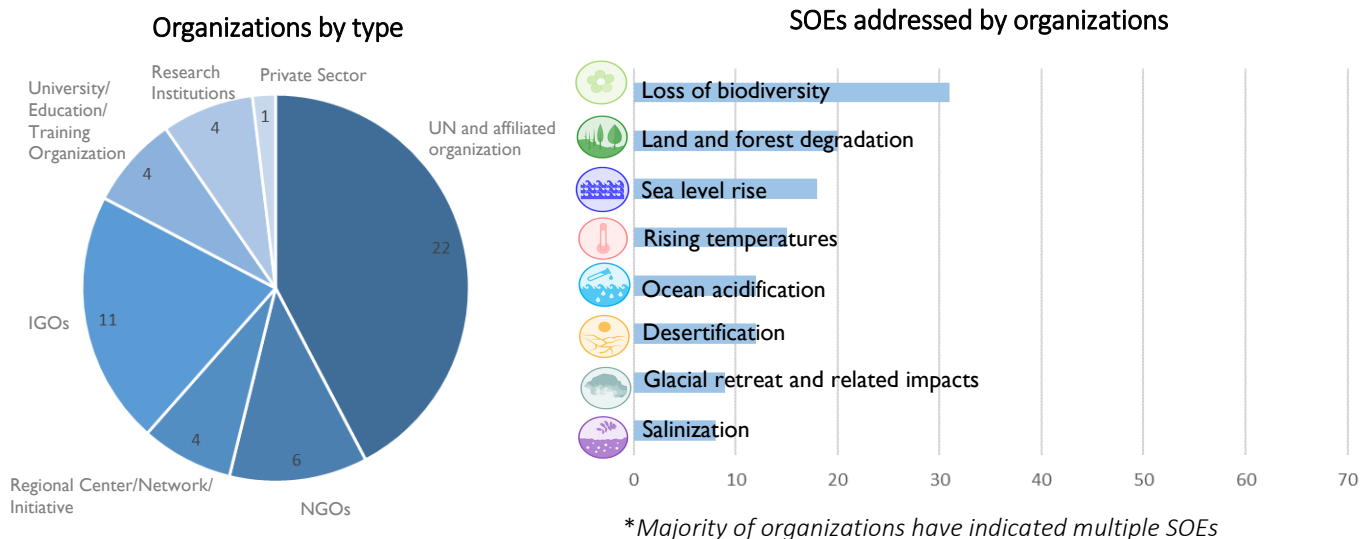


8. Salinization



Organizations working on slow onset events, as reported in the database, in **SOUTH AMERICA**

52 organizations included in the SOEs database are working on slow onset events in **South America**.



Efforts focusing on enhancing knowledge and understanding

- ◇ 48 organizations reported efforts focusing on enhancing knowledge and understanding.
- ◇ The efforts focused *mostly* on loss of biodiversity.
- ◇ The efforts *focused least* on desertification, salinization as well as glacial retreat and related impacts.

Assessment	<p>17%-24% of organizations reported that their efforts focused on the assessment of the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>UNEP</i> monitors and assesses the state of global water resources and their use and management. It also works to strengthen the knowledge base and develop information and monitoring systems for regions prone to desertification and drought. • <i>Secretariat of the Convention on the Conservation of Migratory Species of Wild Animals (CMS)</i> initiates projects to assess the vulnerability, risk and capacity of conserving migratory animals and their habitats. Its Small Grants Programme supports the CMS conservation initiatives for a number of migratory taxa with a strong focus on implementation in developing countries.
Data collection and management	<p>12%-22% of organizations reported that their efforts focused on data collection of the SOEs impacts.</p> <ul style="list-style-type: none"> • <i>Columbia University's Lamont-Doherty Earth Observatory</i> is the first to map the seafloor, to develop a computer model that could predict an El Niño weather event (e.g. along the Pacific coast of South America), to provide concrete proof for the theory of plate tectonics and to reveal the oceans' role in triggering abrupt climate change. • <i>Global Terrestrial Network for Glaciers</i> implements the global observation strategy for the Essential Climate Variable 'glaciers and ice caps' by compiling and disseminating standardized observations and methods on glacier distribution and their changes in multiple regions (South America included). • <i>GRID-Arendal Maps and Graphics Library</i> collects and catalogues all graphic products in South America from the last 15 years across a wide range of themes including sea level rise, ocean acidification, salinization and biodiversity.
Design of approaches	<p>14%-24% of organizations reported that their efforts focused on designing approaches to addressing the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>Consultative Group on International Agricultural Research (CGIAR)</i> explores new ways of helping vulnerable rural communities in multiple countries such as Colombia and Brazil to adjust to global climate change. It brings together the world's best researchers in agricultural science, climate science, environmental and social sciences to identify and address the most important interactions, synergies and trade-offs between climate change and agriculture.

Efforts focusing on strengthening dialogue, coordination and coherence

- ◇ 37 organizations reported efforts focusing on strengthening dialogue, coordination and coherence.
- ◇ The efforts focused *mostly* on loss of biodiversity.
- ◇ The efforts *focused least* on ocean acidification, salinization and glacial retreat and related impacts.

Communication, outreach and stakeholder engagement

16%-22% of organizations reported that their efforts focused on communication and outreach; 13%-22% of organisations reportedly focus on stakeholder engagement to address the impacts of SOEs.

- *Inter-American Institute for Cooperation in Agriculture (IICA)* is currently assisting countries such as Costa Rica, Ecuador, and El Salvador to strengthen their institutional frameworks and implementing biotechnology and biosafety policies. It also maintains a permanent dialogue on these issues with the *Central American Agricultural Council (CAC)* and the *Southern Agricultural Council (CAS)*.
- *Global Forest Observations Initiative (GFOI)* is an initiative of the inter-governmental *Group on Earth Observations (GEO)* that works with national governments that report into international forest assessments. It supports governments that are establishing national systems by providing a platform for coordinating observations, providing assistance and guidance on utilising observations, developing accepted methods and protocols and promoting ongoing research and development.
- governments.

Efforts focusing on enhancing action and support

- ◇ 19 organizations reported efforts focusing on enhancing action and support.
- ◇ The efforts focused *mostly* on loss of biodiversity as well as land and forest degradation.
- ◇ The efforts *focused least* on ocean acidification, salinization as well as glacial retreat and related impacts.

Investment

0%-7% of organizations reported that their efforts focused on investment to address the SOEs.

- *Inter-American Institute for Cooperation in Agriculture (IICA)* possesses valuable human capital, considerable assets and essential financial resources to achieve agricultural development and rural well-being in Latin America and the Caribbean. This is done by, e.g. supporting countries to improve the management of natural resources (water, soil and biodiversity) and increase agricultural production.
- *Critical Ecosystem Partnership Fund (CEPF)* directly provides grants to civil society groups to participate in and influence the conservation of biodiversity. It targets the biodiversity hotspots in developing and transitional countries, areas that are home to millions of people who are impoverished and highly dependent on natural resources, such as Peru.

Implementation and support

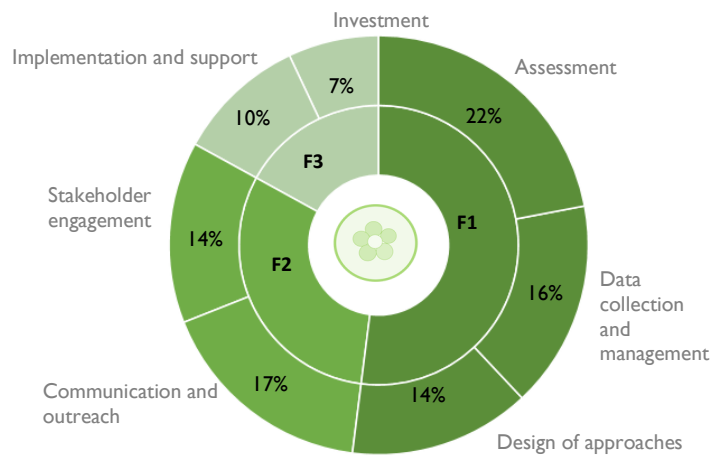
0%-12% of organizations reported that their efforts focused on implementation and support to address the impacts of SOEs.

- *International Research Institute for Climate and Society (IRI)* assists climate services of *National Meteorological Services and Regional Climate Centers* in developing countries, including in South America. This is done through a wide range of capacity-development activities including trainings, tool development, and establishment of best practices and standards.

Annex 7 Scope of work addressing SOEs reported by partners in the SOE database (South America)

Organization respondents recognize the following SOEs as highly relevant to their work (in order of frequency):

1. Loss of biodiversity

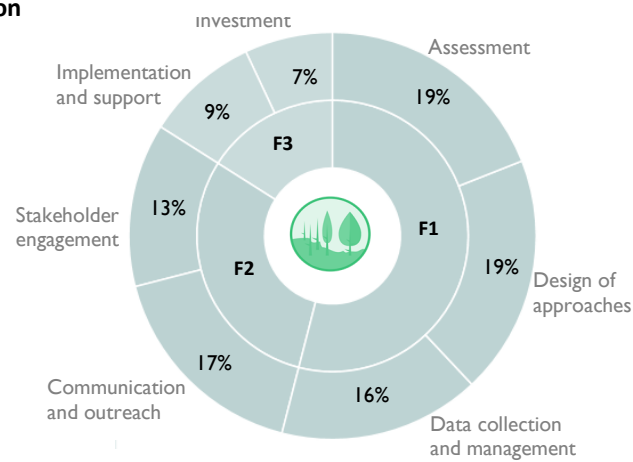


Function Area 1 (F1)

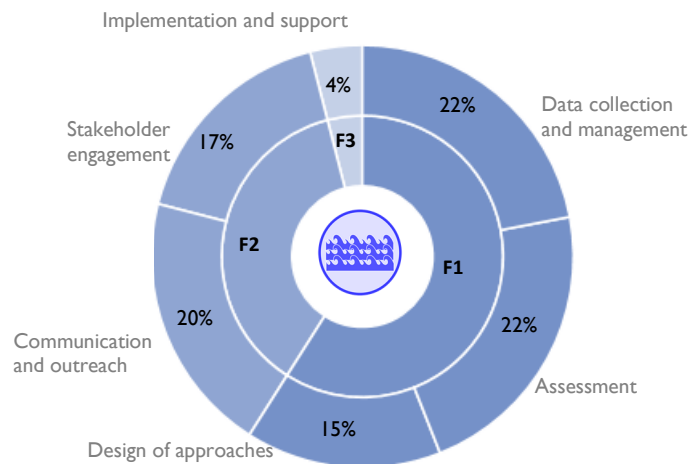
Function Area 2 (F2)

Function Area 3 (F3)

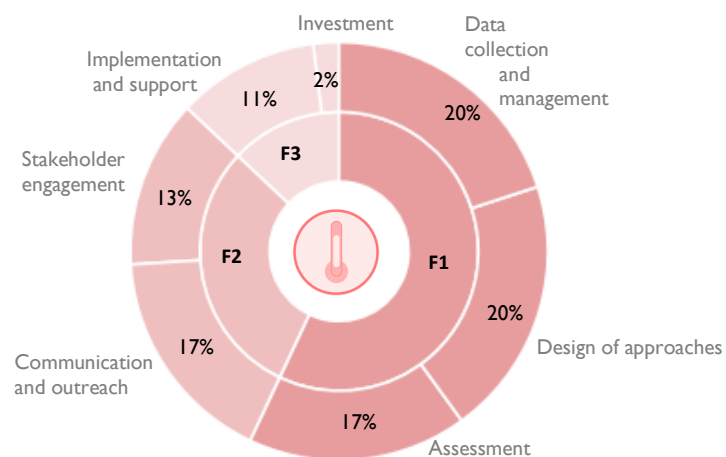
2. Land and forest degradation



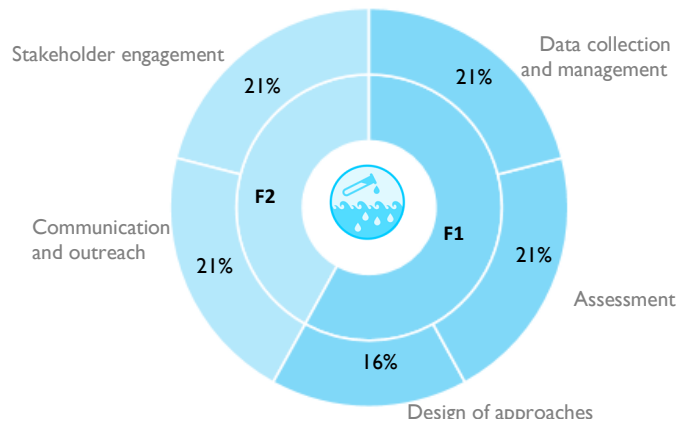
3. Sea level rise



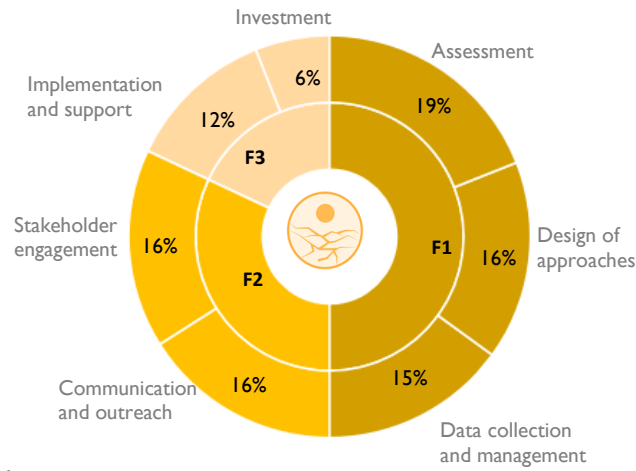
4. Rising temperatures



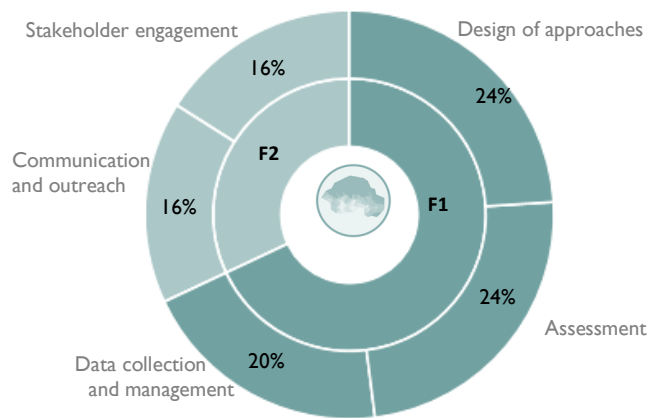
5. Ocean acidification



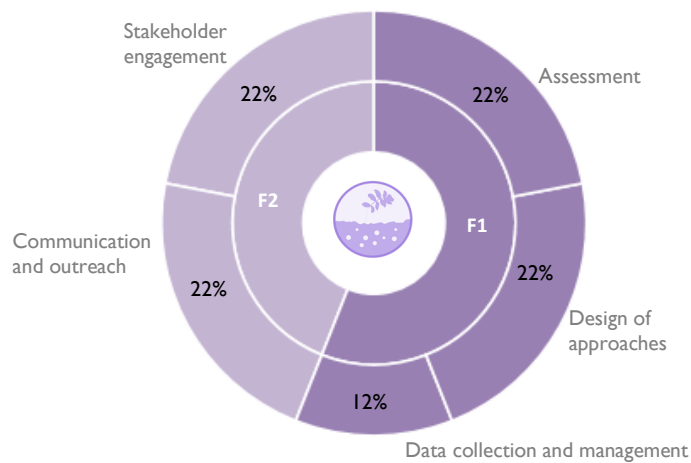
6. Desertification



7. Glacial retreat and related impacts

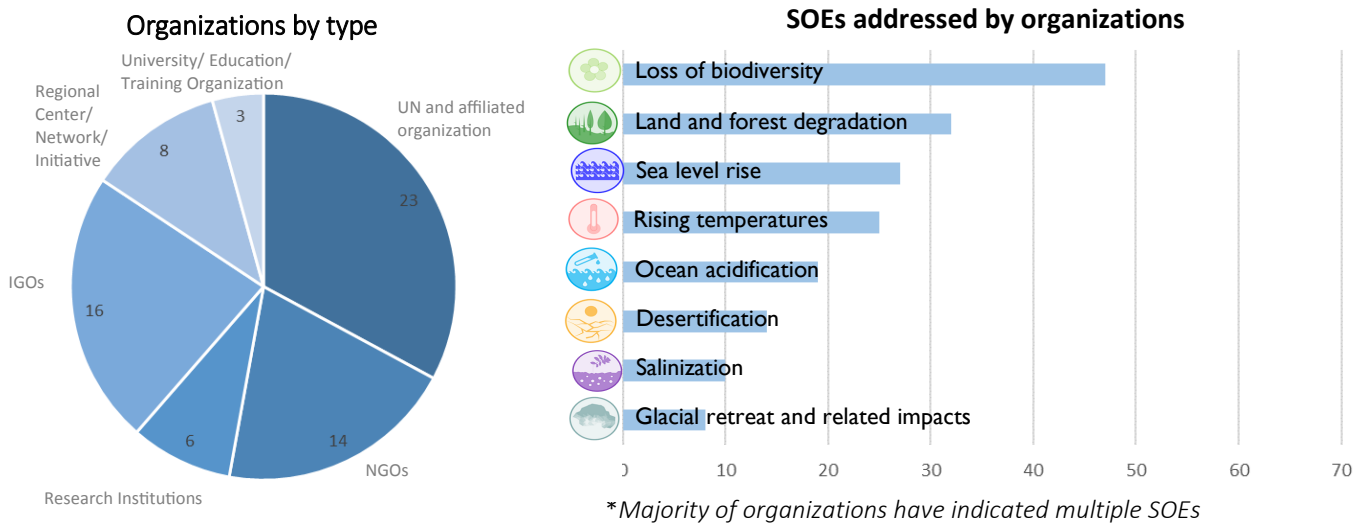


8. Salinization



Organizations working on slow onset events, as reported in the database, in **PACIFIC/OCEANIA**

70 organizations included in the SOEs database are working on slow onset events in **Pacific/Oceania**.



Efforts focusing on enhancing knowledge and understanding

- ◇ 63 organizations reported efforts focusing on enhancing knowledge and understanding.
- ◇ The efforts focused *mostly* on loss of biodiversity as well as land and forest degradation.
- ◇ The efforts *focused least* on desertification, salinization as well as glacial retreat and related impacts.

Assessment	<p>17%-23% of organizations reported that their efforts focused on the assessment of the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>Pacific Catastrophe Risk Assessment and Financing Initiative</i> (PCRAFI) initiated a Pacific Disaster Risk Assessment project and provides 15 countries with disaster risk assessment tools to model and assess their exposure to natural disasters. • <i>Secretariat of the Pacific Regional Environment Programme</i> (SPREP) commenced a pilot study in 2015 in partnership with <i>Deutsche Gesellschaft für Internationale Zusammenarbeit</i> GIZ to assess the capacity of Pacific Island countries to deal with loss and damage from the adverse impacts of climate change. A gap analysis is being conducted in Samoa, Kiribati and Vanuatu to identify main issues with respect to loss and damage.
Data collection and management	<p>11%-23% of organizations reported that their efforts focused on data collection of the SOEs impacts.</p> <ul style="list-style-type: none"> • <i>Pacific Climate Impacts Consortium</i> (PCIC) provides reference climate data to users and interprets recent seasonal weather in light of climatology to provide practical information on the physical impacts of climate variability and change in the Pacific and Yukon Region of Canada. • <i>Pacific Islands Ocean Observing System</i> (<i>PasIOOS</i>) is a partnership of data providers and users working together to enhance ocean observations and apply ocean data and information products to address the needs of stakeholders in the Pacific Islands. It focused initial development on water quality sensing, prediction of coastal hazards, ocean state observations, marine ecosystem information, ocean models and the development of integrated data access and visualization capabilities. • <i>Centre for International Earth Science Information Network</i> (CIESIN) conducted research in cooperation with the United Nations University on the impact of climate change on livelihood as well as infrastructure losses and economic damage among vulnerable households in Micronesia. • <i>International Research Institute for Climate and Society</i> (IRI) issues seasonal forecast of global precipitation and temperature every month in Pacific Islands based on General Circulation Model.
Design of approaches	<p>14%-23% of organizations reported that their efforts focused on designing approaches to addressing the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>Pacific Islands Forum Secretariat</i> (PIFS) developed a multi-tiered and multi-stakeholder approach to assist Forum Island Countries (for example, Nauru) to effectively access and manage international climate change finance.

Design of approaches

- *South Pacific Applied Geoscience Commission (SOPAC)* and the *United Nations Environmental Programme (UNEP)* developed a vulnerability index for the natural environment through consultation and collaboration with countries, institutions and experts across the globe. This index is designed to be used with economic and social vulnerability indices to provide insights into the processes that can negatively influence the sustainable development of countries.

Efforts focusing on strengthening dialogue, coordination and coherence

- ◇ 48 organizations reported efforts focusing on strengthening dialogue, coordination and coherence.
- ◇ The efforts focused *mostly* on loss of biodiversity and land and forest degradation.
- ◇ The efforts *focused least* on glacial retreat and related impacts.

Communication, outreach and stakeholder engagement

14%-23% of organizations reported that their efforts focused on communication and outreach; 9%-20% of organisations reportedly focus on stakeholder engagement to address the impacts of SOEs.

- The *East Asia - Australasia Flyway Partnership* is a cooperative initiative that brings together diverse partners from governments, NGOs and the private sector with a common interest in conserving migratory birds.
- *Asia-Pacific Adaptation Network* co-organizes annual *Asia Pacific Climate Change Adaptation Forum* that brings together worldwide scientists, development workers, government officials, international organizations and representatives from civil society to discuss climate change adaptation and slow onset events in general.
- *Global Index Insurance Facility* works closely with governments at the regional and national level on policy issues to create an enabling legal and regulatory environment for index insurance. It also supports the development of local markets for weather and disaster index-based insurance in Pacific developing countries.
- *Unitarian Universalist Service Committee (UUSC)* targets marginalized communities who are most vulnerable to the slow onset impacts of climate change with a focus on the South Pacific. It convenes multi-stakeholders from the Pacific and Alaska to develop an advocacy agenda for a rights-based protection framework and also provides grants to non-profit grassroots organizations to create an adaptive governance framework.

Efforts focusing on enhancing action and support

- ◇ 32 organizations reported efforts focusing on enhancing action and support.
- ◇ The efforts focused *mostly* on loss of biodiversity as well as land and forest degradation.
- ◇ The efforts *focused least* on salinization as well as glacial retreat and related impacts.

Investment

3%-14% of organizations reported that their efforts focused on investment to address the SOEs.

- *Canadian International Development Assistance* funded the Capacity Building Project for the Development of Adaptation Measures in Pacific Island Countries from 2002–2005. This C\$2.2-million project increases the resilience to the adverse effects of climate change among 16 communities in four Pacific Island countries, namely Cook Islands, Fiji, Samoa and Vanuatu.

Implementation and support

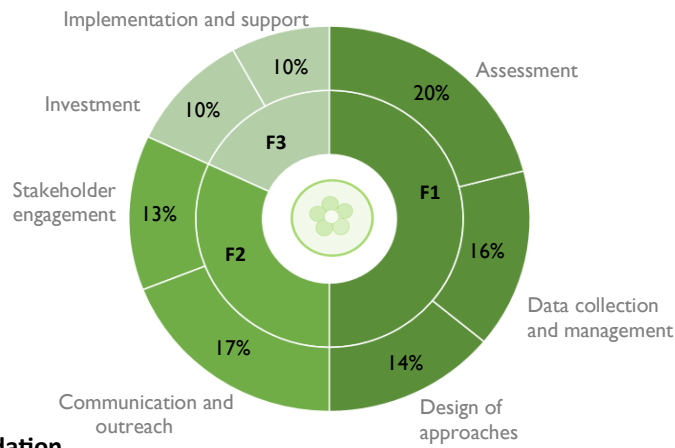
0%-15% of organizations reported that their efforts focused on implementation and support to address the impacts of SOEs.

- *UNEP World Conservation Monitoring Centre (UNEP-WCMC)* assists policy-making in Pacific/Oceania by evaluating values of biodiversity and providing authoritative, relevant and timely information for countries, MEAs, organizations and companies.
- *Secretariat of the Pacific Community (SOPAC)* compiled the Pacific Risk Information System (PacRIS) under the Pacific Catastrophe Risk Assessment and Financing Initiative. PacRIS is a geographic information (GIS) platform designed to provide the Pacific Island Countries, development partners and the private sector with the data and tools needed to develop disaster risk reduction applications.

Annex 6 Scope of work addressing SOEs reported by partners in the SOE database (Pacific/Oceania)

Organization respondents recognize the following SOEs as highly relevant to their work (in order of frequency):

1. Loss of biodiversity

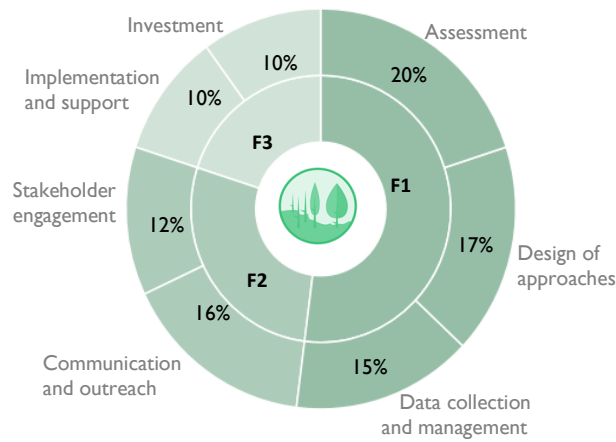


Function Area 1 (F1)

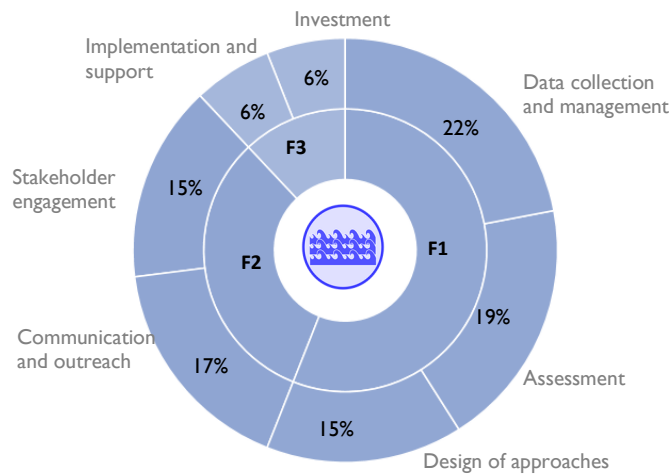
Function Area 2 (F2)

Function Area 3 (F3)

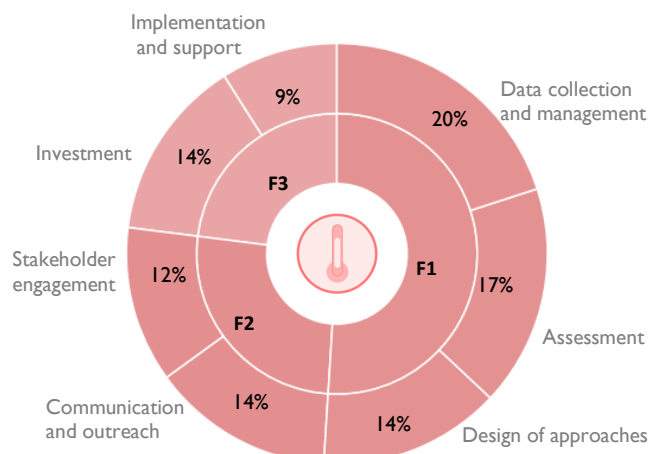
2. Land and forest degradation



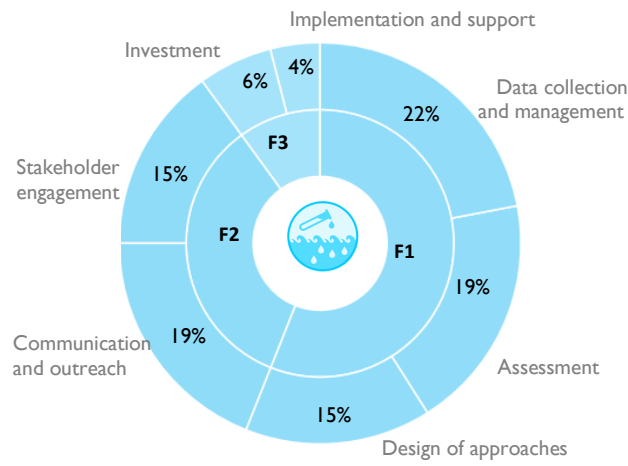
3. Sea level rise



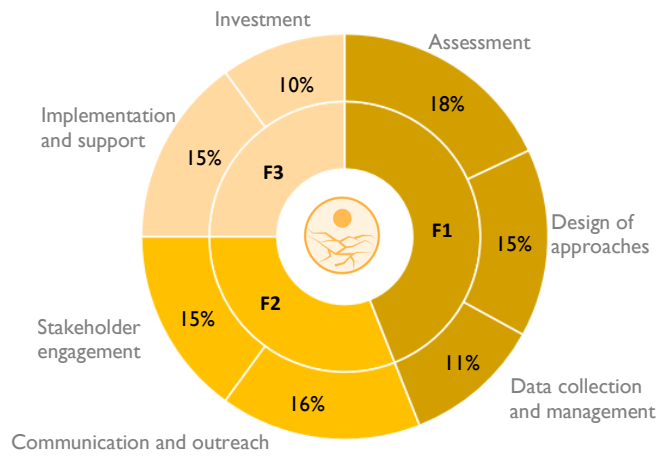
4. Rising temperatures



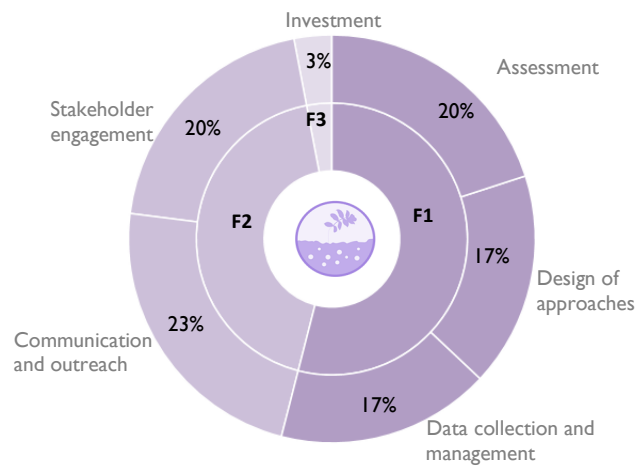
5. Ocean acidification



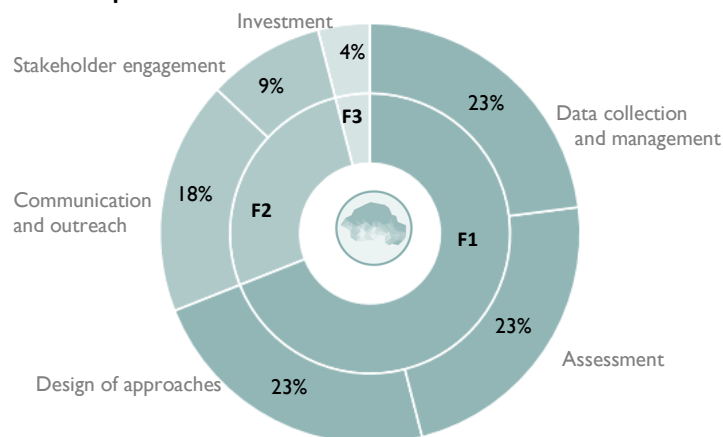
6. Desertification



7. Salinization

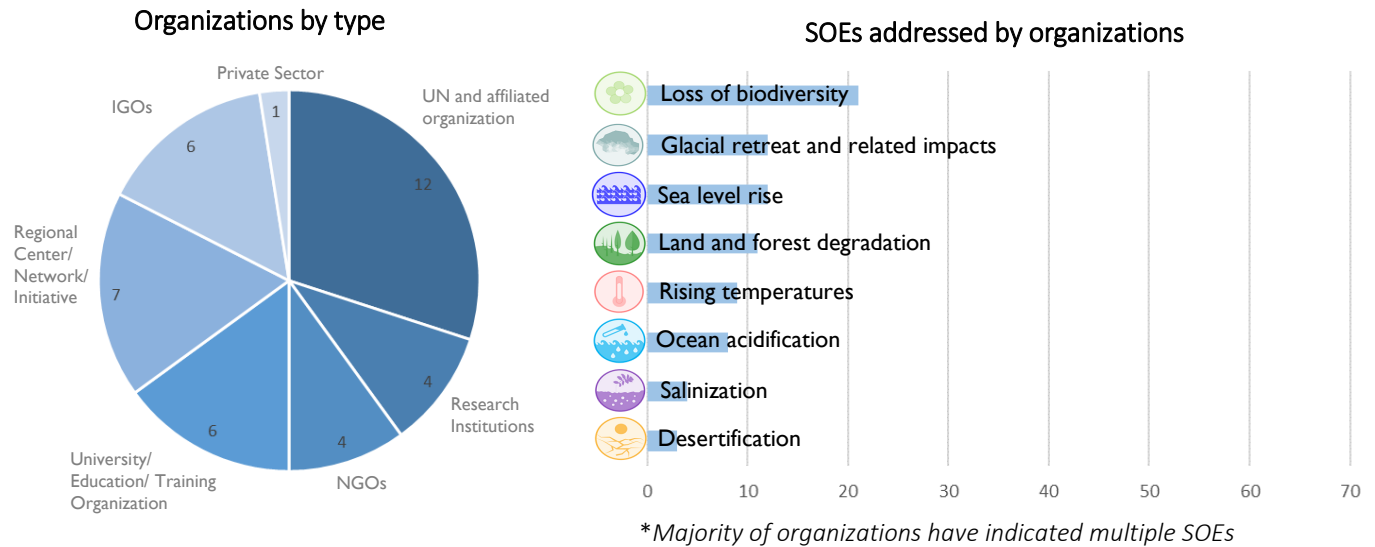


8. Glacial retreat and related impacts



Organizations working on slow onset events, as reported in the database, in **POLAR REGIONS**

40 organizations included in the SOEs database are working on slow onset events in **Polar Regions**.



Efforts focusing on enhancing knowledge and understanding

- ◇ 36 organizations reported efforts focusing on enhancing knowledge and understanding.
- ◇ The efforts focused *mostly* on loss of biodiversity, glacial retreat and related impacts and sea level rise.
- ◇ The efforts *focused least* on salinization and desertification.

Assessment

- 20%-30% of organizations reported that their efforts focused on the assessment of the impacts of SOEs.
- *Woods Hole Research Center (WHRC)* combines analysis of satellite images of the Earth with field studies to measure, model and map changes in the world's ecosystems, for example the thawing permafrost in the Arctic.
 - *Conservation of Arctic Flora and Fauna (CAFF)* assesses the current state of Arctic ecosystems and wildlife using the best available scientific and traditional ecological knowledge. It also produces a range of strategies and provides scientific and conservation recommendations on how to implement plans intended to directly conserve species and ecosystems.

Data collection and management

- 8%-25% of organizations reported that their efforts focused on data collection of the SOEs impacts.
- *National Snow and Ice Data Center (NSIDC)* serves as a place to archive data about the cryosphere by, for example, conducting field work in some of the harshest conditions on Earth, investigating the dynamics of Antarctic ice shelves and monitoring the links between Arctic sea ice and climate.
 - *Scott Polar Research Institute (SPRI)* detects and documents important aspects of the dramatic change taking place in the cryosphere, for example, from the hydrology of former ice sheets to the hydrology of modern ice sheets, and from widespread glacier acceleration in Greenland to the curious stagnation of a large ice stream in Antarctica.
 - *Columbia Climate Center (CCC)* opens a blog called 'Climate Matters', which provides information about melting glaciers, collapsing sea ice, water supplies in the arctic region and the varied efforts to focus public attention on the risks of climate change.
 - *Carbon Dioxide Information Analysis Center (CDIAC)* records the atmospheric concentrations of carbon dioxide and other radioactively active trace gases, analyses carbon cycle and land-cover/land-use change and manages carbon datasets for the Western North Atlantic and Eastern North Atlantic (including adjacent seas).

<i>Design of approaches</i>	<p>8%-21% of organizations reported that their efforts focused on designing approaches to addressing the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>Alaska Institute for Justice</i> seeks to create a process to design and implement a relocation institutional framework that protects individuals in the regions (for example, the Arctic) where slow-ongoing environmental changes (such as glacier retreat and sea level rise) are causing the permanent disappearance of land.
-----------------------------	--

Efforts focusing on strengthening dialogue, coordination and coherence

- ◇ 28 organizations reported efforts focusing on strengthening dialogue, coordination and coherence.
- ◇ The efforts focused *mostly* on loss of biodiversity.
- ◇ The efforts *focused least* on ocean acidification, salinization and desertification.

<i>Communication, outreach and stakeholder engagement</i>	<p>19%-31% of organizations reported that their efforts focused on communication and outreach; 7%-23% of organisations reportedly focus on stakeholder engagement to address the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>Alfred Wegener Institute</i> coordinates German polar research efforts as one of the very few scientific institutions in the world that are equally active in the Arctic and Antarctic. It explores nearly all aspects of the Earth system – from the atmosphere to the ocean floor – by combining innovative approaches, outstanding research infrastructure and years of expertise. • <i>International Study of Arctic Change (ISAC) Science Plan</i> provides a vision for integrating research and applications among diverse fields and varied users and stakeholders. Particularly, it provides guidelines on the observation and tracking of shifting Arctic conditions, processes, and ecosystems, on understanding the nature and drivers of such changes, and on building knowledge on the feedbacks, interconnections and impacts within and beyond Polar Regions. • <i>Carbon Dioxide Information Analysis Center (CDIAC)</i> engages individual investigators and groups to directly contribute ocean carbon data to the center’s data collection plan through an online prescribe process following initial review.
---	--

Efforts focusing on enhancing action and support

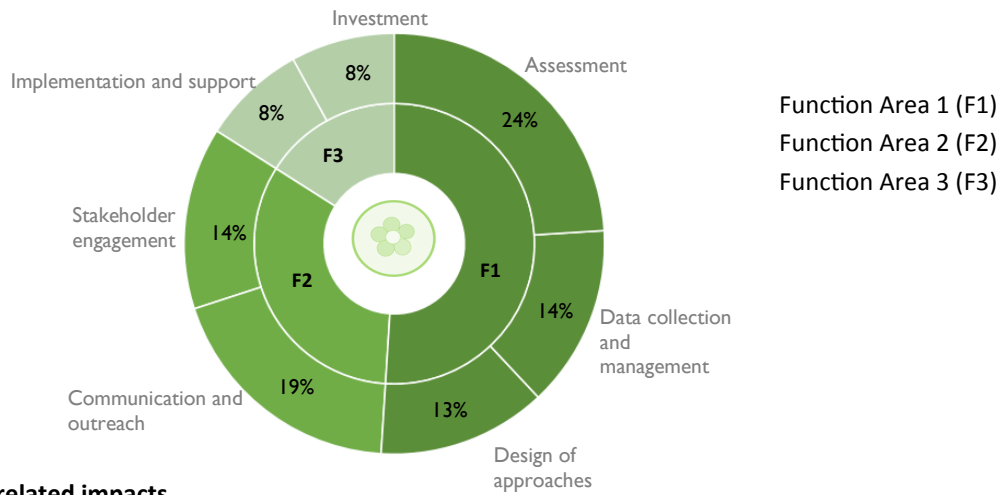
- ◇ 10 organizations reported efforts focusing on enhancing action and support.
- ◇ The efforts focused *mostly* on loss of biodiversity.
- ◇ The efforts *focused least* on sea level rise, ocean acidification, salinization and desertification.

<i>Investment</i>	<p>0%-8% of organizations reported that their efforts focused on investment to address the SOEs.</p> <ul style="list-style-type: none"> • <i>NASA</i> and <i>National Science Foundation</i> funded <i>National Snow and Ice Data Center</i> to manage Arctic and Antarctic data and metadata about the cryosphere, perform scientific research and educate the public about the cryosphere. • <i>National Science Foundation</i> supported the <i>PoLAR Partnership</i> and launched the <i>PoLAR Hub</i> featuring the latest in polar climate science, news and research. It provides information on educational resources focused on polar climate change including games, activities, and other novel tools developed by the <i>PoLAR Partnership</i>.
<i>Implementation and support</i>	<p>0%-8% of organizations reported that their efforts focused on implementation and support to address the impacts of SOEs.</p> <ul style="list-style-type: none"> • <i>Conservation of Arctic Flora and Fauna</i> addresses the conservation of Arctic biodiversity, communicates its findings to the governments and residents of the Arctic and promotes practices to ensure the sustainability of the Arctic’s living resources through various monitoring, assessment and expert group activities.

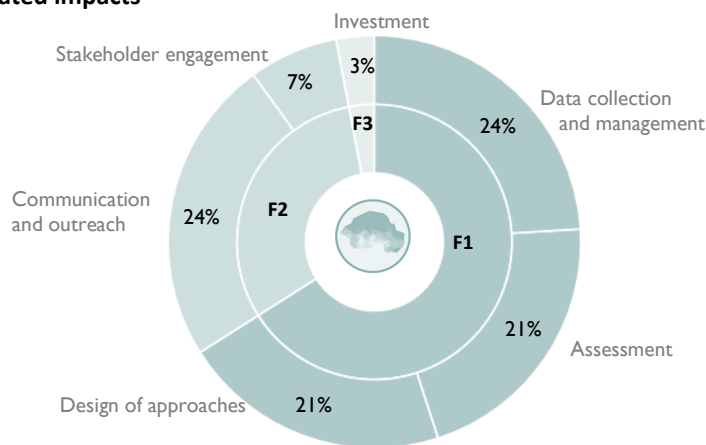
Annex 8 Scope of work addressing SOEs reported by partners in the SOE database (Polar regions)

Organization respondents recognize the following SOEs as highly relevant to their work (in order of frequency):

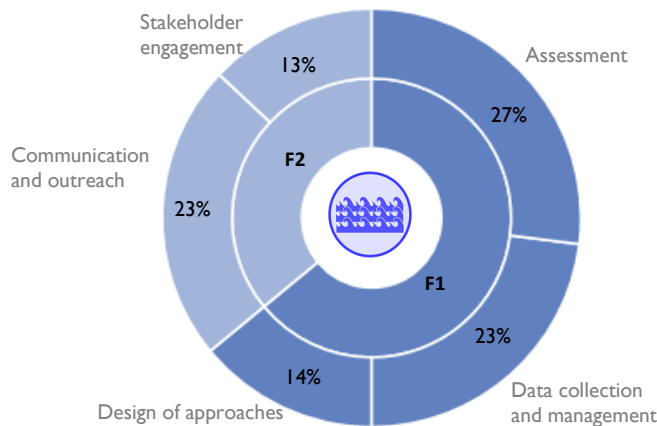
1. Loss of biodiversity



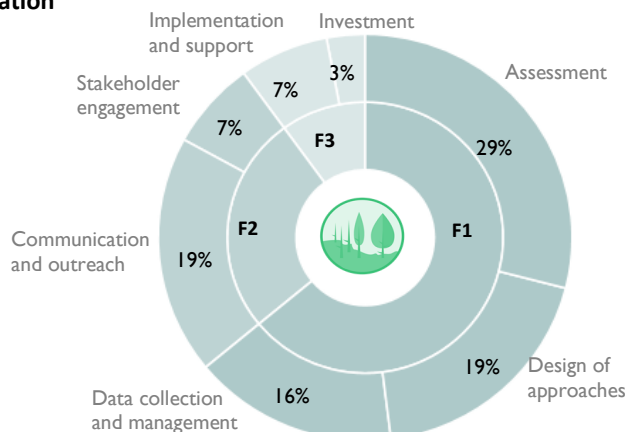
2. Glacial retreat and related impacts



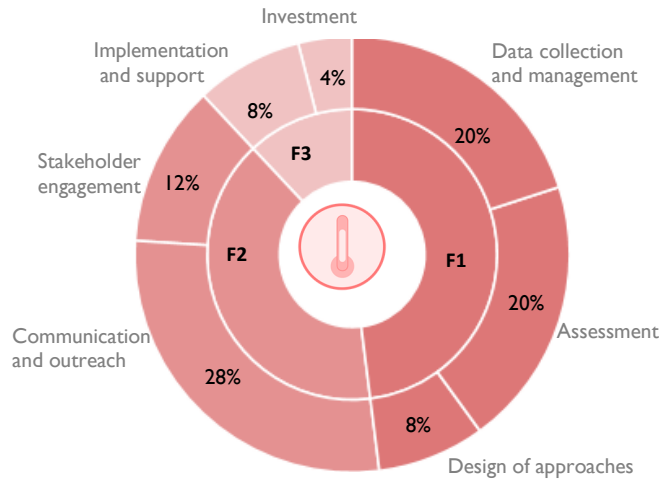
3. Sea level rise



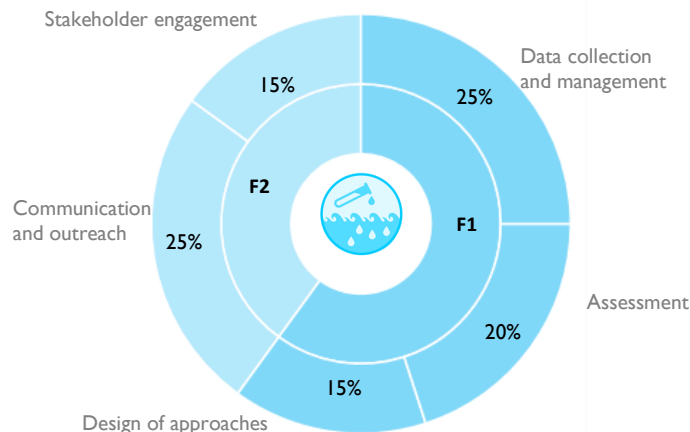
4. Land and forest degradation



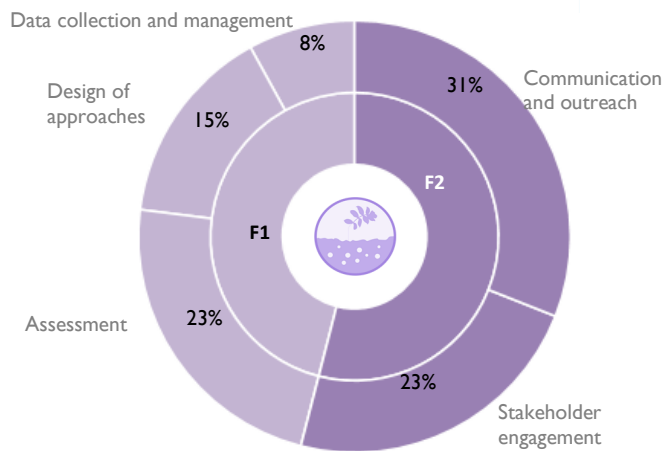
5. Rising temperatures



6. Ocean acidification



7. Salinization



8. Desertification

