

A brief analysis of the Santiago Network Survey – version 1 December

The survey and the accompanying [information note](#) was sent to all NFPs on 27 August with the initial deadline of 18 September.

14 Parties have submitted needs for technical assistance via the survey to date. The [country profile section](#) of the [Santiago Network Portal](#) contains the details of the information submitted.

The survey responses indicate that the need for technical assistance to avert, minimize and address loss or damage associated with climate change impacts are wide-ranging, and includes activities in the areas related to:

- **Collection and management of data and information**
- **Analysis of data and information;**
- **Design and implementation of projects on loss and damage;**
- **Financial instruments.**

A glimpse of common needs for technical assistance across respondent Parties under each of these broad categories are as follows (see Annex I for further details under these categories, and Annex II for additional needs for technical assistance):

- Under **Analysis of data and information** category, all respondents require technical assistance for *conducting pilot loss and damage assessments for certain key agricultural commodities which are vulnerable to climate change, such as rice, aquaculture, and fruits.*
- Regarding actions related to **Collection and management of data and information**, all but one Party request technical assistance for *establishing a baseline on non-economic and social loss and damage, as well as regarding culture, territory, indigenous knowledge systems, ecosystem services.*
- Under the **Design and implementation of projects on loss and damage** category, most common technical assistance need is for *designing proposals and access to financing for climate information services and early warning systems under the GCF and other funding channels.*
- In terms of actions related to **financial instruments**, demand for technical assistance is equally highest for:
 - *Design of combinations of appropriate risk finance tools and instruments applicable to a specific country context and vulnerable groups;*
 - *Develop and deployment of forecast-based finance instruments to minimize potential losses to productive systems;*
 - *Design and financing of social protection measures; and*
 - *Development of national finance instruments (e.g. bonds).*

The activities identified by the respondents call upon technical assistance from sectoral actors/implementers (e.g. agriculture, fishery, protection of biodiversity). Some of the activities also require taking multidisciplinary approaches (e.g. flood management, water resource management, social protection and migration), which call for better coordination of efforts by the donor/supply side.

Of the activities that respondent Parties are currently conducting or developing, they see benefit from the Santiago Network for technical assistance for conducting risk assessments, including baseline studies, risk analysis and modelling, and for the establishment of early warning systems.

Annex I: Detailed elements

This annex contains specific activities which the respondent Parties request technical assistance. Activities are categorized under four broad areas: **Collection and management of data and information; Analysis of Data and information; Project design and implementation;** and **Financial instruments.**

Collection and management of data and information (including databases, spatial data, systematic observations, establishing baselines, etc)

- Reconstruction of historical climate databases including data rescue from old paper records to support climate information services.
- Use of space technologies in systematic observations and geospatial analyses.
- Establishment of a baseline on non-economic and social loss and damage, as well as regarding culture, territory, indigenous knowledge systems, ecosystem services.
- Development of databases and information services to support risk profiling and risk assessment of a variety of timeframes by different actors and stakeholders in their decision-processes.
- Setting up a registry/Mapping of at-risk populations to assess sea level rise induced relocation costs for coastal communities.

Analyses of data and information (including climate change projections, impact analyses, hazard mapping, etc):

- Development of:
 - Local to national climate change scenarios and production of projections of climate risk.
 - Standardized set of risk assessment guidelines for community/subnational level to prepare and maintain inventories of at-risk assets.
- Conduct of pilot loss and damage assessments for certain key agricultural commodities which are vulnerable to climate change, such as rice, aquaculture, and fruits.
- Construction of multivariate impacts and loss databases to support assessments and reporting including through the use of bigdata methods.
- Design of shared database systems to support different ministries and other stakeholders in the country including data collection, storage and sharing protocols and policies.
- Quantitative assessment of risk for important systems to inform decision-making, in particular, selection of risk management approaches/Costing of impacts in the present as well as for projected impacts for use in costs-benefit analyses to appraise options/Estimation and outreach on future climate change risks to inform investor decisions.
- Methods for automated and semi-automated inventorying of infrastructure and assets such as involving geospatial technologies and artificial intelligence.
- National-scale site characterization to support hazard mapping, zoning and other land use planning

Design and implementation of projects on Loss and Damage

- Setting up cross-ministerial/sectoral coordination mechanism for the dissemination and linking warnings with early action, and the deployment of emergency assistance for communities.
- Linking national systematic observations and monitoring to regional and global efforts (for relevant variables, hazards and systems).
- Development of:
 - Protocols (legal, social, financial, institutional) for relocation to ensure effective buy-in of all stakeholders
 - Alternative livelihood programs, livelihood transformation programs, and vocational training for coastal communities and other at-risk population groups.

- Infrastructure and plans for relocation/resettlement of households and communities from frequently affected areas.
- Design of proposals and access to financing for climate information services and early warning systems under the GCF and other funding channels / Development of funding proposals related to the strategic workstreams of the five-year rolling workplan of the Executive Committee.
- Optimal design of sustainable public works (drainage, transportation and other critical and protective infrastructure).
- Optimizing:
 - Land use based on available resources (e.g. water resources, energy, etc)/ Sustainable landscape management including nature-based solutions.
 - Financing between different measures to address risk comprehensively/trade-off analyses in deciding on balance between investment in preemptive measures and measures to address residual risk.
- Protection of cultural heritage and traditional knowledge.

Financial instruments (such as insurance, risk pooling, contingency funds, etc):

- Design/Design and financing of:
 - Combinations of appropriate risk finance tools and instruments applicable to a specific country context and vulnerable groups
 - Social protection measures.
 - National trust/contingency/recovery funds.
- Development/ Development and deployment of:
 - Insurance mechanisms
 - National or regional finance instruments (bonds, regional risk facilities etc)
 - Forecast-based finance instruments to minimize potential losses to productive systems
 - Legal instruments to manage planned migration.
 - Curriculum on various relevant aspects of climate change and loss and damage.

Annex II: Additional areas of needs for technical assistance

Annex II contains information on additional areas of needs for technical assistance as identified by the respondents.

Loss and damage assessment framework for key economic sectors, specific areas or hazards

- Loss and damage assessment in river deltas
- Crop modelling to assess impacts of future drought on food systems
- Real time monitoring of hydromet data (incl. equipment and training)
- Climate/Catastrophic risk modelling to assess the potential damage to infrastructure and displaced-population to determine the budgetary needs
- Post-disaster needs assessment and address data gaps
- Slow onset events-related: data correlations with observed trends and climatic change
- Comprehensive understanding of local dynamics
- Standardized methodologies at the regional level

Climate risk communication and education

- User-friendly communication tools (e.g. animation) production on loss and damage tied to local circumstances/norms/culture/experiences
- Academic network/pool at the national/sub-national level, drawn from regional and international sources, that focuses on the local priorities

Non-economic and human mobility-related

- Integration of local traditional knowledge in assessments and decision-making
- Inventory of at-risk cultural heritage and updating management and monitoring of cultural sites to account for loss and damage
- Improving understanding of displacement/forced migration issues and dynamics

Sectoral needs

- Enhancement of coastal ecosystems
- Protected areas management to account for loss and damage
- Agricultural related early warning systems for pest control

Development and regulation of domestic insurance markets/innovative market-based financing of disaster relief and recovery