

Typology	Approach	Design and implementation (how does the approach work?)	Barriers/gaps/challenges for design and implementation	Solutions/opportunities to address barriers/gaps/challenges	Opportunities for scaling up of the approach	Sources of support, including finance, technology and capacity building (inside or outside the Convention)	Relevant organizations that support implementation and scaling up of approaches	Institutional frameworks / enabling environments
Risk assessment								
	(Needed) Enhancing awareness and understanding of climate risk assessment	Communication tools conveying complex contexts in a transparent and easy to understand fashion	Ongoing insensitivity and unresponsiveness to the needs of groups with disabilities vulnerable to climate impacts	Utilization of expertise of organizations active in the area of disability	N/A	N/A	Nearly all organizations active in this area, e.g. those working on blindness or autism	N/A
	Talanoa Dialogue to increase inclusiveness of L&D and RA discussions for with respect to local communities, thereby ensuring that most vulnerable and poor are truly targeted	Inclusive dialogue currently conducted with members of local communities, e.g. on issue of climate finance, but should be expanded to private sector and civil society (organizations)	Local communities are still not engaged on a regular basis; Local communities not aware of options and value of engagement Language barriers in terms of technicality and terminology	Development of communication tools and mechanisms, including under the UNFCCC	More than research is needed; Delegations must take stronger interest in what is going on in communities in homeland to represent interests	Much more support in terms of technology and c-b is needed, e.g. in cases of re-location to ensure that local communities a, benefit from UNFCCC negotiations and also realize that work under L&D has the potential to provide them with benefits (thus increasing engagement)	Caritas Oceania	UNFCCC
	(Forecast based) Hazard, Vulnerability & Exposure assessments	Models used by insurance industry which allow to simulate the impact of prevention measures in terms of future risks and whether prevention and/or insurance is better way to manage risks	Need of new approaches incorporating future climate scenarios instead of building on historic data	Increase cooperation with champions from the private sector/(re-)insurance industry Build partnerships to expand existing numbers of open source data platforms allowing usage by developing countries	Partnerships with champions from the private sector/(re-)insurance industry Link to climate risk insurance approaches where feasible	N/A	MCI	N/A
	[Needed] Expansion of existing risk assessment tools to include impacts	N/A	Much data only available in qualitative format	Mechanisms/tools to translate qualitative into quantitative data	N/A	Accessing funding for risk assessment through GCF Readiness programme	GCF UNFCCC	UNFCCC

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	beyond economic assets (human capital)			for integration into modelling				
	[Needed] Expansion of risk assessment tools and mechanisms/initiatives to include impacts related to permanent losses (e.g. relocation, displacement, loss of drinking water), e.g. WIM Task Force on Displacement	N/A but must be feasible in the contexts of developing countries and also remain viable regarding future climate scenarios	For SIDS: Lack of quantitative baseline and long term data for conducting RA, Lack of capacities (skills), Lack of institutional frameworks among key stakeholders	Mechanisms that address e.g. displacement Forecast-based action (and financing) on scale Mechanism to measure scale of these needs	N/A	N/A	WIM UNFCCC	UNFCCC
	[Needed] Risk assessment tools which capture the broad variety of risks (financial, economic and social) and are sensitive to locally specific contexts	N/A	BAU risk assessments not reflective of climate realities (Deterministic approach) Lack of data, including on socio-economic elements Lack of dynamic models sensitive to local contexts to strengthen governmental planning	Need to shift to probabilistic, forecast-based modelling approaches Comprehensive approach: Competency development at individual level; Proper analysis and planning development at institutional level; Consensus development at societal level	N/A	N/A	N/A	N/A
	[Needed] Present-oriented (risk) assessment tools focusing on already existing L&D; Participatory risk assessment tools; Forward looking risk assessment tools sensitive to lack of coping capacities,	Inclusion of developing country perspective and local level needs into vulnerability and capacity assessments; Inclusion of options provided through social protection mechanisms when assessed risks go beyond coping capacities	N/A	N/A	N/A	N/A	CARE	UNFCCC

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	keeping in mind that risk assessment can also benefit social protection schemes, not only insurance							
	[Needed] Integration of existing disaster risk assessment approaches with climate risk assessment approaches	Looking at how many people/communities are at risk due to climate change utilizing existing sensors in regions	Skills & Personnel; Lack of down-scaled risk assessments needed to inform more up scaled assessments	Capacity-building within countries and across the DRR/DR assessment and climate risk assessment communities	See 3	N/A	SREP	UNFCCC
	Early warning systems (EWS) as pledged in Paris Agreement and incorporated in multiple NDCs for preventing loss of life	N/A	Existing models rely heavily on historic data; Growing number of institutions focused on building EWS capacities are not aligned with existing WMO mechanisms/projects	New ways to calibrate models responsive to increasingly dynamic environment (frequency/severity) to generate life-saving forecasts; Enhanced understanding of and incremental impacts and their effect on ways to conceptualize risk; Build on and learn from existing EWS schemes to pool resources and maximize benefits	N/A	Funding in line with EWS commitments made in Paris Agreement	WMO	UNFCCC Paris Agreement

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	Risk assessment focused on regional impacts from slow onset events	N/A	Lack of information; Lack of capacity	Support RA with climate data at sectorial and national scales; Conduct comprehensive L&D assessments; Establishment of assessment systems for compilation of long-term data; Creation of synergies among L&D data systems	N/A	N/A	N/A	N/A
	[Needed] For LDCs and SIDS: Inclusive and (geographically and nationally) comprehensive risk assessments sensitive to rural and remote communities (also independent of potential linkages to insurance solutions since mostly only informal economies); Impact assessment beyond direct risks evolving from climate change, but also sensitive to impact of risk response (effect of relocation on communities, e.g. dietary changes and corresponding health effects)	N/A	Lack of resources even though tools for nation-wide assessments also sensitive to communities away from capital city exist	Provision of resources allowing to act in a timely manner	N/A	N/A	N/A	UNFCCC
	Scaled-down regional long-term risk assessments (African region)	N/A	Lack of access to models allowing down-scaling to regional contexts;	For already existing and accessible information: Convey into actionable knowledge, i.e. synthesized and	N/A	Assessment is the foundation of CRM, so any funding dedicated to CRM should provide sufficient resources for assessment	WIM UNFCCC ARC	UNFCCC

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			Lack of resources to access; Lack of skills and training to utilize such models; Complicated tools and methods not tailored to local needs and capacity levels	ready to understand and use by African countries; Dissemination of such knowledge products				
	[Needed] Assessments not only focused on future L&D risks, but also unpreventable L&D; Inclusion of considerations of planned relocations; Inclusion of considerations of non-economic losses; Local needs-responsive risk assessments to ensure sustainability and effectiveness;	Forward looking risk assessments to be complemented by present-based considerations	N/A	Capacity assessments of research and implementing institutions in developing countries	N/A	Funding based on aforementioned capacity needs assessments	Action Aid	N/A
	[Needed] Integration of ecosystem perspective into risk assessments	N/A	Lack of tools; Lack of down-scaling methods and approaches; Lack of finance	N/A	N/A	Technology and capacity building for the identification of future losses and damages, also including ecosystem services		N/A
	Encourage and mobilize all entities to work on DRR	N/A	N/A	N/A	N/A	N/A	UNISDR	N/A
	Risk assessment; Inclusion of risks associated to sea-level changes and changes in oceans into models (low lying islands)	N/A	Gaps in data and capacities to analyze data	N/A	N/A	N/A	N/A	N/A

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	[Needed] Approaches to mainstream elements of risk assessment into different sectors (Agriculture, Energy, Transport), sensitive to environmental and socio-economic dynamics; (Emerging) Space community is increasingly providing access to free data	Integration of differential vulnerability among groups (e.g. women, children), livelihoods (e.g. crop types, etc.)	N/A	N/A	N/A	N/A	UN SPIDER[]	N/A
	[Needed] Integration of existing risk assessment frameworks and research; Creation of framework to systemize and harmonize existing information to feed into models; Integration of non-financial models for comprehensive risk assessment Approaches to access non-economic regions; Increased transparency on basis risk;	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	[Needed] Transparent, participatory and locally sensitive approaches to risk assessment, also including considerations of marginalized groups, such as low income groups and	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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	particularly women, and including concerns of displacement; Risk assessments independent of implementation of insurance for contexts in which insurance will not help							
	[Needed] Expansion of existing models to depict full reality of risks in line with increasing frequency and severity of extreme weather events	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	[Needed] (Risk) assessments focusing on current I&d	N/A	Identification of feasible implementing bodies; Identification of capacities of communities and countries in terms of technology, financial needs and skill	Identification of right models and tools	N/A	Need to develop a mechanism for how to support vulnerable countries to immediately commence their assessment work		
	N/A	N/A	N/A	Identification of criteria and methodologies on how to implement risk assessment; Coordination among and capacity building for decision-makers in all sectors	N/A	N/A	N/A	N/A
	[Needed] Enhanced awareness of climate risks through and for assessments	N/A	Lack of good data; Lack of assessment frameworks	N/A	N/A	N/A	N/A	N/A