TOOLS AND RESOURCES FOR MAINSTREAMING ENVIRONMENTAL CONSIDERATIONS IN THE SETTLEMENTS APPROACH

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HOW TO USE THIS DOCUMENT

This document lists specific tools and resources that will assist humanitarian practitioners in incorporating environmental factors when applying the Settlements Approach.

OBJECTIVE

To provide humanitarian practitioners with links to suggested tools and resources for integrating environmental considerations into settlement-based programmes. Its structure reflects the key actions and steps described in Chapter 2 of the *Thematic Annex*.

AUDIENCE

Both the *Thematic Annex* and the *Tools and Resources* list are for use by humanitarian agencies and local stakeholders in planning, coordinating, and delivering settlements-based assistance. Both will be of particular use to programme-oriented personnel and coordination staff of local governmental authorities, non-government organisations (NGOs) and civil society organisations engaged in humanitarian response and environment-related projects.

APPLICATION

The *Tools and Resources* list is designed to be used during the initial steps of the Settlements Approach, namely:

- SETTLEMENT IDENTIFICATION AND DELINEATION
- CONTEXT ANALYSIS AND NEEDS ASSESSMENT.

CAVEAT

This *Tools and Resources*list should not replace rapid environmental assessments or any other environmental guidance or national compliance required.

NAVIGATING THE TOOLS AND RESOURCES

KEY ACTIONS AND STEPS

Correspond to the key actions and steps in the *Thematic Annex*. The *Tools and Resources* list abbreviates some of these, so check the *Thematic Annex* for comprehensive recommendations.

TOOLS AND RESOURCES

Recommended tools and resources for the operationalisation of each step. Users should familiarise themselves with the objectives and content of each resource before deciding which one to use. The list is not exhaustive, with new resources becoming available regularly.

ENVIRONMENTAL AND CLIMATE CHANGE CONSIDERATIONS FOR SETTLEMENT IDENTIFICATION AND DELINEATION

This section supplements Section 2.1 of the *Thematic Annex*.

KEY ACTION 1 CONSIDER CRITICAL ENVIRONMENTAL, CLIMATE, AND HAZARD CRITERIA WHEN IDENTIFYING AND DELINEATING A SETTLEMENT

KEY STEPS	TOOLS AND RESOURCES
USE SECONDARY DATA TO IDENTIFY POTENTIAL CLIMATE CHANGE AND ENVIRONMENTAL HAZARDS	**CLIMATE CHANGE PROJECTIONS:** ▪ Climate Change Knowledge Portal[1] provides a country-specific summary of climate change projections, focusing on temperature and precipitation trends ▪ Interactive Climate Atlas[2] reflects global and regional past and future changes in key climate variables across different periods and emission scenarios ▪ WorldClim[3] contains historical and future bioclimatic variables across different climate models **DISASTER-AFFECTED AREAS:** ▪ Global Disaster Alert and Coordination System (GDACS)[4] is a platform to improve alerts, information exchange, and coordination after major sudden-onset disasters ▪ UNOSAT emergency mapping[5] is a collection of geo datasets produced in response to humanitarian emergencies related to disasters ▪ PreventionWeb[6] is the global knowledge-sharing platform for disaster risk reduction ▪ The Sendai Hazard Definition and Classification Review Technical Report[7] includes a common set of 302 hazard information profiles **OVERLAY SOCIO-ECONOMIC DATA TO UNDERSTAND SPECIFIC VULNERABILITIES:** ▪ Data for Good[8] offers high-resolution population density and demographic estimates ▪ The Armed Conflict Location & Event Data Project (ACLED)[9] is a security incidents database

[1] World Bank. *Climate Change Knowledge Portal* (website). climateknowledgeportal.worldbank.org/

[2] *Copernicus Interactive Climate Atlas* (website). atlas.climate.copernicus.eu/atlas

[3] WorldClim. *Bioclimatic Variables* (website). worldclim.org/data/bioclim.html

[4] UN & European Commission. *Global Disaster Alert and Coordination System* (website). worldclim.org/data/bioclim.html

[5] Unitar & UNOSAT. *UNOSAT Analyses* (website). unosat.org/products/

[6] UNDRR. *PreventionWeb* (website). preventionweb.net/knowledge-base/type-content/latest-additions

[7] UNDRR & ISC. H*azard Definition & Classification Review*. Technical Report. 2020. United Nations. undrr.org/publication/hazard-definition-and-classification-review-technical-report

[8] HDX. *Data for Good at Meta* (website). data.humdata.org/organization/meta

[9] ACLED. *Armed Conflict Location & Event Data* (website). acleddata.com/

	▪ Live Universal Awareness Map (Liveuamap)[10] is a platform on conflicts, health issues, and disasters, sourced from an array of media and other channels ▪ Resource Watch[11] is a dynamic platform that provides data on many environmental parameters, including cropland extent, loss, and gain from 2003 to 2019 ▪ Multi-sectoral needs assessments (IOM, REACH) ▪ Open data from National Statistical Service and yearbooks and UN Statistics Division[12]
ENGAGE WITH COMMUNITY, GOVERNMENT, AND ACADEMIC REPRESENTATIVES, WHO COULD PROVIDE SPATIAL ENVIRONMENTAL DATA	▪ Consultations with community members, local stakeholders, and national entities, such as ministries or academic partners, to explore potential sources of spatial environmental data
ADVOCATE TO LAND MANAGEMENT AUTHORITIES TO AVOID HAZARD-PRONE AREAS WHEN LOCATING NEW SETTLEMENTS, USING THE EVIDENCE COLLECTED IN STEPS 1 AND 2	▪ Rapid advocacy briefs outlining the importance of integrating environmental considerations into site selection decisions at the initial stage of interventions. Refer to site selection criteria of Principles & Standards for Settlement Planning[13] and Minimum Standards in Shelter, Settlement and Non-Food Items[14] particularly in relation to topography, drainage, soil conditions, vegetation, distance to natural protected areas (including biodiversity hotspots and wildlife habitats), and natural resources sustainability management requirements

KEY ACTION 2 MAP THE BROAD ENVIRONMENTAL CONTEXT AND NATURAL RESOURCES IN THE TARGET SETTLEMENT

KEY STEPS	TOOLS AND RESOURCES
GENERATE AN ENVIRONMENTAL BASE MAP OF THE TARGET SETTLEMENT AND SURROUNDING AREA	▪ Existing secondary data/maps, including local land use or territorial general plans that typically contain natural boundaries (such as conservation areas, green belts, riparian zones, public spaces, spaces for recreation, and agricultural lands) ▪ GPS point location of boundaries of environmental concern ▪ Open source satellite imagery classification tools for QGIS[15] and ArcGIS[16] for delineation of natural boundaries ▪ OpenStreetMap dataset,[17] created by community mappers, may include data on land use, forests, buildings, roads, railways, industrial sites, critical facilities, river networks, and settlement boundaries

[10] Liveuamap. *Live Universal Awareness Map (Liveaumap)* (website). iran.liveuamap.com/about#about

[11] WRI. *'Global Cropland Change' on Resource Watch* (website). resourcewatch.org/

[12] UN Department of Economic and Social Affairs. Statistics (website). unstats.un.org/UNSDWebsite/

[13] UNHCR. *Principles & Standards for Settlement Planning*. Last updated 2024. emergency.unhcr.org/emergency-assistance/shelter-camp-and-settlement/settlements/principles-standards-settlement-planning

[14] Sphere. *'Chapter 4: Minimum standards in shelter, settlement and non-food items' in The Sphere Handbook by The Sphere Project*. 2018. sheltercluster.s3.eu-central-1.amazonaws.com/public/docs/SPHERE%20standard%20(Shelter%20and%20NFI%20part).pdf

[15] QGIS. *'Spatial without compromise' on QGIS* (website). qgis.org/

[16] Esri. *'Resources' on ArcGIS Pro* (website). esri.com/en-us/arcgis/products/arcgis-pro/resources

[17] Geofabrik GmbH. *OpenStreetMap Data Extracts* (website). download.geofabrik.de/

GENERATE AN ENVIRONMENTAL BASE MAP OF THE TARGET SETTLEMENT AND SURROUNDING AREA	▪ The Nexus Environmental Assessment Tool (NEAT+)[18] is a rapid environmental screening tool for humanitarian contexts, which allows quick identification of environmental concerns ▪ Geographic information systems (GIS) and remote sensing (RS) tools, including: - QGIS[19] and ArcGIS[20] for hydrological analysis and satellite imagery classification - GIS/RS tools, such as Google Earth,[21] for historical hazard-zone mapping and/or hazard susceptibility assessment - Sentinel Hub Earth Observation browser[22] for search and visualisation of the publicly available satellite imagery **NATIONAL AND REGIONAL DATASETS MAY BE AVAILABLE FROM:** ▪ Government agencies/ministries: Environmental protection agencies, natural resource departments, meteorological agencies, and disaster management authorities ▪ International organisations: United Nations Environment Programme (UNEP), World Meteorological Organization, and World Bank ▪ Research institutions: Academic institutions, research organisations, and NGOs ▪ Country-level environmental profiles[23] contain environmental baseline information relevant to humanitarian shelter and settlement interventions
SHARE THE MAP WITH LOCAL STAKEHOLDERS TO COLLECT FURTHER INPUTS AND CONFIRM THE SPATIAL EXTENT OF NATURAL RESOURCES THE SETTLEMENT RELIES ON	▪ Focus group discussions to undertake participatory mapping ▪ Participatory transect walks around the areas of environmental concern ▪ Participatory multi-hazard risk mapping[24] is a methodology for local environmental risk awareness and mapping of disaster-prone areas and/or climate change and environmental factors affecting the community
IDENTIFY RELEVANT LAWS, INTERNATIONAL CONVENTIONS, LAND USE REGULATIONS, CUSTOMARY LAND LAWS, LOCAL DEVELOPMENT PLANS AND OTHER INSTRUMENTS, INCLUDING ENVIRONMENTAL IMPACT ASSESSMENT REQUIREMENTS, THAT MIGHT RESTRICT LAND USE IN OR NEAR THE SETTLEMENT. LOCATE INFORMAL LAND USE AREAS AND ACKNOWLEDGE EXISTING LAND DISPUTES	▪ Consult with local authorities responsible for environmental protection and land management to get an understanding of environmental management through local development plans, existing land use regulations, and customary land laws ▪ Review existing laws, policies, and frameworks on environmental protection, land management, and governance ▪ Country-level environmental profiles, including those developed by the Global Shelter Cluster[25]

[18] UNEP/OCHA Joint Environment Unit. *'Rapid and simple project-level environmental screening for humanitarian operations' on NEAT+* (website). neatplus.org/

[19] QGIS. *'17.16 Hydrological analysis' on QGIS Training Guide* (website). docs.qgis.org/3.34/en/docs/training_manual/processing/hydro.html

[20] QGIS. *'17.16 Hydrological analysis' on QGIS Training Guide* (website). docs.qgis.org/3.34/en/docs/training_manual/processing/hydro.html

[21] Google. *Earth Engine Data Catalog* (website). developers.google.com/earth-engine/datasets/

[22] *Sentinel Hub EO browser* (website). apps.sentinel-hub.com/eo-browser/?zoom=10&lat=41.9&lng=12.5&themeId=DEFAULT-THEME&toTime=2024-08-05T11%3A21%3A43.250Z

[23] Global Shelter Cluster Environment Community of Practice. *Country-level Environmental Profiles* (website). sheltercluster.org/environment-community-practice/pages/country-level-environmental-profiles

[24] German Red Cross & IFRC. *Participatory Multi-Hazard Risk Mapping Methodology for Urban and Peri-Urban Contexts. Module 1 – Methodology Guidelines and Training Materials.* 2017. rcrc-resilience-southeastasia.org/wp-content/uploads/2017/12/Module-1_EN_FINAL-17-11-21.pdf

[25] *Global Shelter Cluster Environment Community of Practice. Country-level Environmental Profiles* (website). sheltercluster.org/environment-community-practice/pages/country-level-environmental-profiles

KEY ACTION 3 REFLECT LOCAL PERCEPTIONS OF THE NATURAL ENVIRONMENT AND LANDSCAPE BOUNDARIES WHEN DELINEATING THE SETTLEMENT

KEY STEPS	TOOLS AND RESOURCES
EXPLORE HOW DIFFERENT GROUPS IN THE TARGET SETTLEMENT INTERACT WITH THEIR LOCAL ENVIRONMENT AND INCLUDE THOSE IN SETTLEMENT BOUNDARIES SEEK THE PARTICIPATION OF ALL COMMUNITIES, INCLUDING MARGINALISED AND MINORITY GROUPS WITHIN HOST COMMUNITIES DURING THE DELINEATION PROCESS TO IDENTIFY NATURAL AND CULTURAL HERITAGE SITES WITH CULTURAL OR RELIGIOUS VALUE	▪ Participatory mapping FGDs and community workshops capture insights and priorities on the value and variety of ecosystem services and natural resources availability. They can also identify which ecosystems, natural features, and physical landscapes may have specific cultural or economic significance ▪ Ensure area delineation includes input from vulnerable and marginalised groups, allowing community representatives to identify key environmental assets
VALIDATE THE FINAL BOUNDARIES OF THE SETTLEMENT AND LOCATION OF ENVIRONMENTAL ASSETS	▪ Multi-stakeholder consultations to agree the final boundaries

KEY ACTION 4 ANTICIPATE HOW CHANGES IN ENVIRONMENTAL CONDITIONS MIGHT CHANGE HUMANITARIAN NEEDS

KEY STEPS	TOOLS AND RESOURCES
EXAMINE HOW SOCIO-ECONOMIC AND ENVIRONMENTAL TRENDS HAVE SHAPED THE LAND USE IN AND AROUND THE SETTLEMENT AND HOW THAT HAS IMPACTED THE ENVIRONMENT	▪ RS tools for monitoring changes in land cover, vegetation health and other environmental parameters over time, providing critical information for ecosystem services assessments ▪ Secondary data review, including localised climate change projections, urban growth, deforestation, real estate development, infrastructure development and development of agricultural land as well as hazards such as water scarcity, and land degradation. Use these to understand how the demographic, physical, and environmental footprint of the target area may evolve
ANTICIPATE OPTIONS FOR REVISITING THE SETTLEMENT BOUNDARIES IF THE CRISIS BECOMES PROTRACTED	▪ GIS desktop and/or web mapping tools to update the settlement boundaries ▪ Focus group discussions with local populations to understand risks or reoccurrences of natural hazards/events

ENVIRONMENTAL AND CLIMATE CHANGE CONSIDERATIONS FOR CONTEXT AND NEEDS ASSESSMENT

This section supplements Section 2.2 of the *Thematic Annex*.

KEY ACTION 5 UNDERSTAND THE ENVIRONMENTAL CONTEXT OF THE TARGET SETTLEMENT

KEY STEPS	TOOLS AND RESOURCES
IDENTIFY RELEVANT INFORMATION FROM KEY ACTIONS 1 AND 2 FOR FURTHER IN-DEPTH CONTEXT ANALYSIS	▪ Use key findings from Key Actions 1 and 2 on available natural resources, ecosystems, and hazard-prone zones within the settlement for further in-depth context analysis and complement this with additional consultations to fill information gaps
IDENTIFY AND ANALYSE ADDITIONAL SECONDARY DATA SOURCES TO UNDERSTAND THE ENVIRONMENTAL FEATURES OF A SETTLEMENT	EXAMPLES OF DATA SOURCES AND INFORMATION THEY PROVIDE: ▪ Local civil society organisations' websites and publications: Data gathered through past projects, initiatives, and scientific research related to hazardous landfill locations, natural resources pollution spots, scientific research local environmental issues, etc ▪ Local/national meteorological agencies' and academic institutions' websites: Historical environmental, weather and climate data, and maps related to temperature patterns, precipitation levels, and extreme weather events in a settlement area ▪ Local/national environmental organisations or government ministries' and agencies' websites: Data on natural resource management, environmental protection and conservation, risk analyses, and previous assessments (for example, of industry, local ecosystems, flood maps) ▪ Online databases, Environmental datasets: such as the Environmental Data Gateway, World Data Center for Climate, Global Biodiversity Information Facility, and the Environmental Performance Index) ▪ Social media, online media: Articles about past disasters and their impact on the settlement ▪ Aid agencies' reports and publications: such as FAO, IUCN, UNEP, IMPACT, ACAPS, UN-Habitat and UNDRR, International Financial Institutions, Area- based reports, assessments, and factsheets related to the environment, seasonal calendars, DRR, or climate change publications ▪ Settlement Profiling Tool,[26] provides guiding questions for context analysis in Ecological Framework/Environmental Considerations (pp.24-31) ▪ Seasonal calendar[27] methodology is available in the Enhanced Vulnerability and Capacity Assessment Toolbox[28] ▪ ACAPS Seasonal Calendar[29] is an interactive calendar that displays seasonal events occurring in more than 90 countries during a typical year, at both national and subnational levels

[26] *Settlement Profiling Tool. UN-Habitat.* 2020. unhabitat.org/sites/default/files/2020/08/200720_settlement_profiling_tool_web.pdf

[27] IFRC. *Seasonal Calendar* (website). preparecenter.org/site/evca/toolbox/seasonal-calendar/

[28] IFRC. *Enhanced Vulnerability and Capacity Assessment* (website). preparecenter.org/site/evca/

[29] ACAPS. *Seasonal Calendar* (website). acaps.org/en/thematics/all-topics/seasonal-calendar

IDENTIFY AND ANALYSE ADDITIONAL SECONDARY DATA SOURCES TO UNDERSTAND THE ENVIRONMENTAL FEATURES OF A SETTLEMENT	▪ Strengthening Risk Analysis for Humanitarian Planning[30] provides an Excel template of the seasonal calendar and other relevant tools for risk assessment ▪ Flash Environmental Assessment Tool (FEAT)[31] is a tool to identify existing and future impacts of technological hazards (provided they are available in the area) on the environment and population health ▪ Green Recovery and Reconstruction Training Toolkit. Module 4: Green Guide to Strategic Site Selection and Development[32] is a detailed set of guidelines and checklists for environmental and climate-conscious site planning **PROJECT-LEVEL ENVIRONMENTAL SCREENING TOOLS:** ▪ The Nexus Environmental Assessment Tool (NEAT+)[33] ▪ Climate, Environment and Disaster Risk Reduction Integration Guidance (CEDRIG)[34]
IDENTIFY AND ENGAGE WITH ACTORS WITH KNOWLEDGE OF THE LOCAL ENVIRONMENTAL CONTEXT	▪ Key Action 4 Chapter 2 in the *Thematic Annex* provides a list of stakeholders relevant to environmental context analysis and needs assessment ▪ Figure 3.1 in the *Settlements Approach Guidance Note* provides a simple and detailed stakeholder analysis template ▪ Key informant interviews (see the Practical Guide for Area-based Assessment with Key Informants)[35] and focus group discussions with environmental experts ▪ Transect walk and observation with local experts and traditional and/or Indigenous actors
DESIGN AND ESTABLISH TWO-WAY INFORMATION-SHARING CHANNELS WITH LOCAL SUBJECT-MATTER EXPERTS	▪ Communications with communities in disaster emergency response and recovery: volunteers guidelines[36] ▪ IFRC Guide to Community Engagement and Accountability[37] offers guidance and tools supporting engagement with and accountability to communities

[30] UNDRR. *Seasonal Calendar* (website). docs.google.com/spreadsheets/d/1QXnycsigqQm9bcSNp3d34MDw4BILK-uYdKMe_VoQVKQ/edit?gid=1316473658#gid=1316473658

[31] UN Environment/OCHA Joint Unit. *Flash Environmental Assessment Tool (FEAT).* Reference Guide Working Document (website). eecentre.org/wp-content/uploads/2018/12/FEAT-2_Reference-Guide_small.pdf

[32] WWF & American National Red Cross. *Green Recovery and Reconstruction: Training Toolkit for Humanitarian Aid.* (website). https://envirodm.org/green-recovery/module-4/

[33] UNEP/OCHA Joint Environment Unit. *'Rapid and simple project-level environmental screening for humanitarian operations' on NEAT+* (website). neatplus.org/

[34] Swiss Agency for Development and Cooperation. *Climate, Environment and Disaster Risk Reduction Integration Guidance* (website). cedrig.org/

[35] REACH & UNHCR. *Area Based Assessment with Key Informants. A Practical Guide.* 2019. reliefweb.int/report/world/area-based-assessment-key-informants-practical-guide

[36] IFRC. *Communications with Communities in Disaster Emergency Response and Recovery: Volunteers guidelines.* 2019. communityengagementhub.org/resource/communications-with-communities-in-disaster-emergency-response-and-recovery-volunteers-guidelines/

[37] IFRC & ICRC. *A Red Cross Red Crescent Guide to Community Engagement and Accountability.* 2021. ifrc.org/sites/default/files/2022-05/RCRC_CEA_Guide_2022.pdf

KEY ACTION 6 ASSESS THE IMPACT OF ENVIRONMENTAL FACTORS AND DISASTER RISKS ON MULTI-SECTORAL NEEDS AND FUNCTIONING OF ESSENTIAL SERVICES

KEY STEPS	TOOLS AND RESOURCES
USE ENVIRONMENTAL CONTEXT FINDINGS TO FRAME RESEARCH QUESTIONS, INDICATORS, AND RESPONSE OPTIONS RELATED TO ENVIRONMENT AND DISASTER RISK IN MULTI-SECTORAL NEEDS ASSESSMENT	▪ Annex 2: Integrating Environment into Sectoral Parts of the In-Depth Multi-Sector Assessment[38] provides a list of sector-specific environmental questions/considerations that can be integrated into the multi-sector needs assessment
INCLUDE ENVIRONMENTAL INDICATORS IN BASIC NEED CATEGORIES	▪ Sphere Handbook[39] ▪ Rapid Environmental Assessment Tool (Annex B4)[40] ▪ Table 3 in the *Thematic Annex*
IDENTIFY KEY IMPACTS OF ENVIRONMENTAL SHOCKS AND CLIMATE-RELATED HAZARDS ON BASIC SERVICES (SUPPLY)	▪ Table 3 in the *Thematic Annex* provides a list of environmental impact information to collect ▪ GIS/RS to map the access, exposure of basic service facilities, and their functionality
IDENTIFY KEY IMPACTS OF ENVIRONMENTAL SHOCKS AND CLIMATE-RELATED HAZARDS ON THE POPULATION`S NEEDS (DEMAND)	▪ Table 3 in the *Thematic Annex* provides a list of key environmental impact information to collect ▪ The Sphere Handbook[41] provides environmental indicators relevant to needs assessment and analysis in each sector ▪ Guidelines for Rapid Environmental Impact Assessment in Disasters (Annex B4)[42] provides a list of basic needs categories and related indicators, which could deplete ▪ Essential resources and the environment during relief and recovery periods

[38] IFRC. '*Annex 2: Integrating Environment into Sectoral Parts of the In-Depth Multi-Sector Assessment' in Guidance Note: Environmental Sustainability in Emergency Needs Assessment & Planning*. 2021. docs.google.com/document/d/1YPE6fBX8GsB-71ZgnRo313z5ylBato-SWiyWPtAJoWxg/edit#heading=h.7xvuk4iecjqg

[39] Sphere Project. *The Sphere Handbook*. 2018.

[40] US Agency for International Development. *Guidelines for Rapid Environmental Impact Assessment in Disasters*. Version 5. 2018. eecentre.org/wp-content/uploads/2018/01/REA_2018_final-6.pdf.

[41] Sphere Project. *The Sphere Handbook*. 2018.

[42] US Agency for International Development. *Guidelines for Rapid Environmental Impact Assessment in Disasters*. Version 5. 2018. eecentre.org/wp-content/uploads/2018/01/REA_2018_final-6.pdf.

MAP POSSIBLE CASCADING EFFECTS CAUSED BY ENVIRONMENTAL SHOCKS AND CLIMATE-RELATED HAZARDS ON POPULATION NEEDS AND BASIC SERVICES. CONSIDER HOW THE EXACERBATION OF NEEDS IN ONE HUMANITARIAN SECTOR OR THE DESTRUCTION OF ONE BASIC SERVICE COULD LEAD TO MORE SEVERE NEEDS AND IMPACTS IN OTHER SECTORS	▪ Climate Impacts: Global and Regional Adaptation Support Platform[43] ▪ Climate Change Risk Assessment 2021[44] provides examples of cascading impacts and interconnectedness of hazards, drivers, and impacts in economic and trade disruption, migration pressures, food security, health crises, and energy security ▪ International Science Council (ISC) Briefing note on systemic risk, 2022[45] gives an overview of the concepts of systemic risk and identifies commonalities across terminologies and perspectives associated with systemic risk used in different contexts
ENSURE VULNERABLE AND MARGINALISED GROUPS ARE REPRESENTED AND INVOLVED IN DATA GATHERING AND ASSESSMENT PROCESSES, AS WELL AS IN COORDINATION, PLANNING, AND DECISION-MAKING PROCESSES	▪ Use community engagement and accountability approaches to ensure the participation and perspectives of all groups of people throughout the programme cycle. Consult resources such as the Red Cross Red Crescent's Guide to Community Engagement and Accountability[46] that includes a toolkit with resources such as CEA in Assessments, Selection Criteria and Planning ▪ For displacement contexts, the Joint IDP Profiling Service (JIPS)[47] provides tools and resources for collaborative processes for analysing displacement situations. This entails gathering information on populations affected by displacement, including local populations

[43] ci:grasp. *The Climate Impacts: Global and Regional Adaptation Support Platform* (website). pik-potsdam.de/cigrasp-2/ic/ic.html

[44] Chatham House. *Climate Change Risk Assessment 2021* (website). chathamhouse.org/2021/09/climate-change-risk-assessment-2021/04-cascading-systemic-risks

[45] Sillmann, J., Christensen, I., Hochrainer-Stigler, S., Huang-Lachmann, J., Juhola, S., Kornhuber, K., Mahecha, M., Mechler, R., Reichstein, M., Ruane, A.C., Schweizer, P.- J. & Williams, S. *Systemic Risk Briefing Note. Review and Opportunities for Research, Policy and Practice from the Perspective of Climate, Environmental and Disaster Risk Science and Management.* International Science Council, UNDRR & RISKKAN. 2022. DOI: 10.24948/2022.01

[46] IFRC & ICRC. *A Red Cross Red Crescent Guide to Community Engagement and Accountability.* 2021. ifrc.org/sites/default/files/2022-05/RCRC_CEA_Guide_2022.pdf

[47] JIPS knowledge hub (website). jips.org

KEY ACTION 7 GATHER VULNERABLE POPULATIONS' PERCEPTIONS OF ENVIRONMENTAL AND CLIMATE CHANGE RISKS AS A PART OF NEEDS & CAPACITIES ASSESSMENTS

KEY STEPS	TOOLS AND RESOURCES
INCLUDE PERCEPTION-ORIENTED QUESTIONS IN NEEDS AND CAPACITIES ASSESSMENT SURVEYS **For example:** ▪ **Level of concerns, awareness, and reliance of different population groups on natural resources and key ecosystems** ▪ **Knowledge, attitudes, and practices related to disaster risks and risk mitigation** ▪ **Affected populations' and local actors' perceived capacity to prepare and respond to shocks** ▪ **Level of participation of local vulnerable groups and minorities in decision-making processes related to environmental management and disaster resilience-building activities**	▪ Guidelines for Rapid Environmental Impact Assessment in Disasters, Annex C[48] provides guidance for collecting information for community-level rapid assessment of environmental impacts ▪ Participatory multi-hazard risk mapping[49] is a methodology for mapping disaster-prone spaces, service and community infrastructure networks prone to hazards (can be conducted simultaneously with hazard mapping exercise in Key Action 2 in the *Thematic Annex*) ▪ Climate Vulnerability and Capacity Analysis (CVCA)[50] is a tool to gather and analyse information on community-level vulnerabilities to and capacities for climate change ▪ Community-based Risk Screening Tool (CRiSTAL)[51] is a project-planning tool that helps users design activities that support climate adaptation (that is, adaptation to climate variability and change) at the community level ▪ IFRC Enhanced Vulnerability and Capacity Assessment (EVCA),[52] has a tool in *Section 7.2: Assess capacity* that helps identify the resources available to a community to cope with a hazard and reduce its impact
MAP OUT THE COMMUNITY'S PERCEIVED CAPACITY TO PREPARE AND RESPOND TO SHOCKS	▪ Context analysis provides findings on key ecosystems and natural resources that the settlement and community benefit from ▪ Resilience Nexus ARC-D Toolkit is a tool to assess the level of disaster resilience at community level through a discussion-based survey of 30 disaster resilience components[53] ▪ Millennium Ecosystem Assessment[54] is a resource that explains what ecosystem services are and their impact on human well-being ▪ TESSA[55] is an ecosystem services assessment toolbox, which provides practical, low-cost methods for assessing ecosystem services at specific sites ▪ UNEP Ecosystem Opportunity Mapping[56] is a tool that highlights areas where ecosystem restoration and/or protection can be applied

[48] US Agency for International Development. *Guidelines for Rapid Environmental Impact Assessment in Disasters*. Version 5. 2018. eecentre.org/wp-content/uploads/2018/01/REA_2018_final-6.pdf.

[49] German Red Cross & IFRC. *Participatory Multi-Hazard Risk Mapping Methodology for Urban and Peri-Urban Contexts. Module 1 – Methodology Guidelines and Trainning Materials*. 2017. rcrc-resilience-southeastasia.org/wp-content/uploads/2017/12/Module-1_EN_FINAL-17-11-21.pdf

[50] CARE. *Climate Vulnerability and Capacity Analysis Handbook (CVCA)* (website). careclimatechange.org/cvca/

[51] CRiSTAL. Community-based Screening Tool – Adaptation & Livelihoods (website). iisd.org/cristaltool/

[52] IFRC. *Enhanced Vulnerability and Capacity Assessment* (website). preparecenter.org/site/evca/how-to-do-evca/level-three-facilitate-assessment/#Step7.1

[53] Resilience Nexus. *ARC-D Toolkit. Analysis of the Resilience of Communities to Disasters*. 2016 https://resiliencenexus.org/arc_d_toolkit/what-it-is/

[54] Ecosystems and Human Well-being. *A Framework for Assessment*. https://millenniumassessment.org/en/Framework.html.

[55] *TESSA tools* (website). birdlife.org/tessa-tools/#form (available by filling in the request form)

[56] UNEP. *Ecosystem Opportunity Mapping*. opportunity-mapping.unepgrid.ch/opportunity-mapping

	▪ Part 4 of Nature-based Solutions for Climate Resilience in Humanitarian Action[57] offers tools for integrating nature-based solutions in humanitarian actions ▪ The Nature-Based Solutions Opportunity Scan[58] is a tool that provides examples of the inclusion of different types of nature-based solutions in different sectors and regions worldwide ▪ Nature-based solutions in humanitarian settlements[59] offers guidance on integrating nature-based solutions in settlement planning ▪ IFRC PASSA approach for community engagement[60] is a participatory tool for raising awareness and developing skills in joint analysis, learning, and decision-making at the community level
ASSESS THE LEVEL OF PARTICIPATION OF LOCAL VULNERABLE GROUPS AND MINORITIES IN DECISION-MAKING PROCESSES RELATED TO ENVIRONMENTAL MANAGEMENT AND DISASTER RESILIENCE-BUILDING ACTIVITIES	▪ Focus group discussions, key informant interviews with community members. Include local authorities where relevant
MAP OUT COMMUNITY-RELEVANT MEASURES, INCLUDING NATURE-BASED SOLUTIONS, TO MITIGATE DISASTER RISKS AND RESTORE/ PROTECT KEY ECOSYSTEMS AND NATURAL RESOURCES	▪ Focus group discussions, key informant interviews with community members and local authorities (environmental, DRR specialists)
SHARE SIGNIFICANT FINDINGS OBTAINED DURING THE CONTEXT AND NEEDS ASSESSMENT BACK TO THE LOCAL COMMUNITY AND KEY ACTORS	▪ Use methods for sharing findings that are in line with local community and key actors' communication preferences ▪ See IFRC's community meetings tool for guidance on holding meetings to provide feedback to communities

[57] Sphere, FEBA, PEDRR, EHAN & IFRC. *Nature-based Solutions for Climate Resilience in Humanitarian Action.* A Sphere Unpacked Guide. 2023. spherestandards.org/resources/nbs-guide/

[58] GFDRR. *The Nature-Based Solutions Opportunity Scan.* naturebasedsolutions.org/knowledge-hub/64-nature-based-solutions-opportunity-scan

[59] UNHCR. *Nature-Based Solutions in Humanitarian Settlements: Guidelines for Integrating Nature-Based Solutions in Settlement Planning.* 2024. unhcr.org/sites/default/files/2024-05/nature-based-solutions-humanitarian-settlements-guidelines-integrating-nbs-in-settlement-planning.pdf

[60] IFRC. *PASSA approach for community engagement.* 2020. ifrc.org/document/participatory-approach-safe-shelter-awareness-passa-manual

KEY ACTION 8 EVALUATE THE POTENTIAL CONSEQUENCES OF HUMANITARIAN INTERVENTIONS ON LOCAL ECOSYSTEMS AND CRISIS-AFFECTED POPULATION

KEY STEPS	TOOLS AND RESOURCES
UNDERTAKE ENVIRONMENTAL SCREENING TO IDENTIFY CROSS-SECTORAL DIRECT AND INDIRECT IMPACTS OF HUMANITARIAN OPERATIONS ON THE SETTLEMENT AREA, INCLUDING: ▪ **Calculation of CO2 and other greenhouse gases generated from operations** ▪ **Assess direct and indirect impact on water sources, deforestation, land degradation, energy consumption, wildlife displacement, hazardous waste disposal, etc.**	**EMISSION ASSESSMENT TOOLS:** ▪ Shelter Methodology for the Assessment of Carbon (SMAC)[61] is a tool to assess the level of carbon dioxide equivalents (CO2 eq) of shelter assistance after a disaster ▪ The Humanitarian Carbon Calculator (HCC)[62] is a tool to estimate humanitarian organisation's greenhouse gas emissions, based on the Greenhouse Gas Protocol **ENVIRONMENTAL RISK SCREENING TOOLS:** ▪ The Nexus Environmental Assessment Tool (NEAT+)[63] is a rapid and simple project-level environmental screening tool that allows quick identification of issues of environmental concern ▪ The multi-sectoral site assessment form[64] is for selecting new sites and extending existing sites, incorporating aspects of NEAT+ and relevant to the WASH, energy, and environment sectors ▪ Climate, Environment and Disaster Risk Reduction Integration Guidance (CEDRIG)[65] is a project-level tool for identifying risks which may affect the project's outcomes as well as potential negative impacts by the intervention ▪ Environmental Risk Analysis Matrix for Shelter[66] is a project-level tool for analysing the priority environmental risks and corresponding mitigation risks related to Shelter and other specific sectors, like FSL, WASH, Shelter, Health & MHPSS ▪ Environmental Checklist for Shelter Response[67] informs environmentally sustainable shelter programming ▪ Environmental Stewardship Tool (EST)[68] is a project-level environmental screening tool for programme design teams ▪ EST Community Level Analysis[69] guides community engagement in risk identification after EST analysis is done by the design team ▪ Green Response: Environmental Quick Guide[70] (p. 12) explains the basics of green response and provides practical advice on how humanitarian agencies can improve the environmental sustainability of their work and their organisations ▪ Shelter and Settlements. Key environmental issues linked to shelter and settlements programming[71] contains guidance and tools for environmental issues of concern to the sector
CONSULT WITH LOCAL STAKEHOLDERS TO IDENTIFY POTENTIAL NEGATIVE IMPACTS AND DEFINE LOCALLY APPROPRIATE AND COLLABORATIVE WAYS TO MITIGATE THOSE	

[61] Global Shelter Cluster Environment Community of Practice. *Shelter Methodology for the Assessment of Carbon (SMAC).* 2021. https://sheltercluster.org/environment-community-practice/pages/shelter-methodology-assessment-carbon-smac

[62] *Humanitarian Carbon Calculator* (Website). climate-charter.org/humanitarian-carbon-calculator/

[63] UNEP/OCHA Joint Environment Unit. *'Rapid and simple project-level environmental screening for humanitarian operations' on NEAT+* (website). neatplus.org/

[64] UNHCR. *Multi-Sectoral Site Assessment Form.* (Website). unhcr.org/media/multi-sectoral-site-assessment-form

[65] Swiss Agency for Development and Cooperation. *The Climate, Environment and Disaster Risk Reduction Integration Guidance (CEDRIG).* cedrig.org/

[66] REH. *Environmental risk analysis matrix for Shelter.* 2024. environnementhumanitaire.org/en/environmental-risk-analysis-matrix-for-shelter-peer-review-reh-27-08-2024-10-09-2024/

[67] *Global Shelter Cluster. Environmental Checklist for Shelter Response.* 2020. https://sheltercluster.s3.eu-central-1.amazonaws.com/public/docs/2020.04.16_checklist_v1.5.pdf

[68] CRS. *Environmental Stewardship Tool.* (Website). efom.crs.org/environmental-stewardship-tool/

[69] CAFOD, Caritas Australia & CRS. *Environmental Stewardship Tool – Community Level Analysis.* No date. efom.crs.org/wp-content/uploads/2024/04/EST-Community-Level-Guidance-.pdf

[70] IFRC. *Green Response: Environmental Quick Guide.* 2022. ifrc.org/sites/default/files/2022-11/20221019_GreenResponse_QuickGuide2.pdf

[71] EHA Connect. *Guidance for environmental issues relevant to the main "Clusters" or sectors of humanitarian programming.* (website). https://ehaconnect.org/clusters/

INFORM AFFECTED COMMUNITIES THAT THEY CAN USE EXISTING FEEDBACK AND COMPLAINTS MECHANISMS TO REPORT POTENTIAL ENVIRONMENTAL DAMAGE CAUSED BY HUMANITARIAN PROGRAMMING OR ENVIRONMENTAL CONCERNS MORE BROADLY	▪ DG ECHO voluntary environmental indicators[72] facilitate the DG ECHO Minimum Environmental Recommendations and Requirements (MERs)[73] at the project proposal stage COMMUNITY ENGAGEMENT AND FEEDBACK AND COMPLAINTS MECHANISMS TOOLS: ▪ Guide to Community Engagement and Accountability[74] ▪ Feedback Kit[75]

[72] DG ECHO. *(Voluntary) Indicators for the minimum environmental requirements*. 2023. environnementhumanitaire.org/en/ressource/new-voluntary-environmental-indicators-from-dg-echo-december-2023/

[73] DG ECHO. *Guidance on the operationalisation of the minimum environmental requirements and recommendations for EU-funded humanitarian aid operations*. 2022. ec.europa.eu/echo/files/policies/environment/guidance_on_the_operationalisation_of_the_mers_for_eu-funded_humanitarian_aid_operations.pdf

[74] IFRC & ICRC. *A Red Cross Red Crescent Guide to Community Engagement and Accountability*. 2021. ifrc.org/sites/default/files/2022-05/RCRC_CEA_Guide_2022.pdf

[75] IFRC. *Feedback Kit*. 2022 communityengagementhub.org/resource/ifrc-feedback-kit/