



Climate Smart Programming Checklist

For practitioners and programme planners

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 International Federation
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About the checklist

Climate Change is regarded as a significant challenge faced worldwide, posing a direct threat to humans and environment. Negative impacts of climate change fall disproportionately on poor communities, who have contributed least to its causes¹. Addressing risks posed by changing climate has become essential for humanitarian and development agencies in their efforts to support these communities.

Sri Lanka Red Cross Society (SLRCS) has been contributing to addressing many humanitarian and development challenges with an emphasis on disaster relief and risk reduction for more than seventy five years. Through the engagement with communities, SLRCS has gained a good understanding of local capacities and needs allowing it to critically re-examine the ways it has been engaging with these communities to strengthen their safety and resilience.

One lesson learned is that short-term interventions have a short-term impact only on reducing risks and that a long term perspective, which would also consider future climate scenarios, is required for a meaningful change. Therefore SLRCS has taken a conscious and strategic decision to incorporate climate change analysis into its work.

This 'Climate Smart Programming Checklist' is a step SLRCS is taking to mainstream climate change adaptation and mitigation into its programmes. It aims to assist programme planners and practitioners in identifying and addressing impacts of changing climate scenarios systematically in SLRCS programmes.

How will this checklist help

This checklist is designed to guide users to ensure that issues related to climate change are identified and addressed systematically at all stages of project/programme cycle. The checklist therefore is organized into four sections:

- 1) Situation and problem analysis
- 2) Project/programme design
- 3) Implementation
- 4) Monitoring, evaluation and sharing

Projects/programmes can vary from relief and recovery to disaster preparedness, disaster risk reduction, livelihood development, health and shelter.

¹ http://www.careclimatechange.org/files/toolkit/CARE_CBA_Toolkit.pdf, http://www.careclimatechange.org/files/tackling_the_climate_reality.pdf

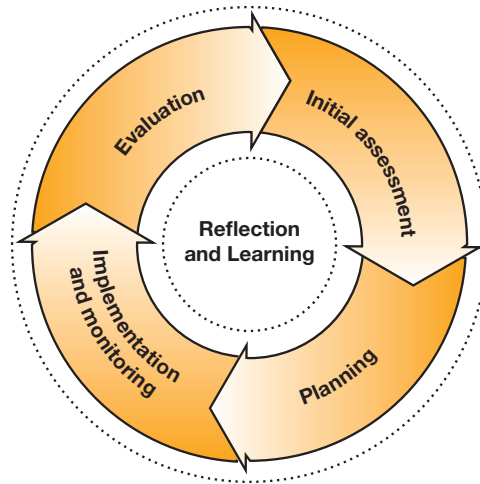


Figure1: The project/ programme cycle

Integrating Climate Change in project/programme cycle - why is it important

Integrating climate change is a process. Its objectives are:

1. to ensure climate risks to programme/projects are considered and project/programme activities and approaches are adjusted to address these risks.
2. to reduce risks posed by current and future climate trends.
3. to ensure project/programme activities are appropriate, effective and do not harm i.e., do not exacerbate vulnerabilities of communities.
4. to strengthen sustainability and impact of the project/programme .

Rationale for mainstreaming disaster risk reduction and climate change

Climate change is a new factor that will act as an additional stress to increase the existing vulnerabilities of many people². As a result of global warming, climate - related hazards like floods, droughts, heat waves, and storms are expected to become more frequent and/or possibly also more intense (e.g. tropical cyclones/hurricanes may have more rainfall and stronger winds, cover more territory). Changes in climate also act as a multiplier of existing health risks caused by climate-sensitive diseases.

² A guide to mainstreaming disaster risk reduction and climate change adaptation. IFRC

This will result in increasing vulnerability as climate trends will damage livelihoods, increase poverty and damage food security. In addition, some climate-related hazards such as tropical cyclones, storms, floods, droughts, heat and cold waves will affect places that have not experienced them before.

There is a strong interrelationship between climate change adaptation and disaster risk reduction. DRR and CCA share a common goal of reducing vulnerability and achieving sustainable development. They also share a common conceptual understanding of the components of risk and the processes of building resilience; they regard risk as the product of exposure and vulnerability to hazards or effects of climate change, or both.

The difference is that while disaster risk reduction has traditionally looked at risks that communities know and are familiar with, climate change adaptation focuses more on future scenarios as projected by climate science³.

DRR and CCA mainstreaming will help ensure that strategies, policies, programmes or projects are designed with due consideration for potential disaster and climate change risks and thus prevent them from inadvertently increasing vulnerability to disaster or climate change.

Risk-informed decisions and planning would make even the short-term humanitarian initiatives such as relief assistance and recovery activities meet the immediate needs of affected people, reduce their vulnerability at the same time, and ultimately strengthen their resilience.

What this checklist will ‘not’ do

This checklist will not provide a fixed formula for addressing climate change issues. This checklist is to help in analyzing the situation in a holistic and comprehensive manner which would make designing, planning and implementation more effective. Vulnerability to climate change is context-specific, and initiatives must be tailored to meet specific needs of specific groups within specific social and ecological settings.

Who is this checklist for

This checklist has been designed for SLRCS project managers and field staff engaged in programmes/projects which cover a variety of issues such as health, livelihood, disaster risk reduction and organizational development.

The checklist is also developed in a manner so that communities targeted by Red Cross projects/programmes can also participate in the process to ensure information they provide contributes to designing effective and appropriate adaptation strategies.

³ Bridging the gap, Integrating climate change and disaster risk reduction, case study, IFRC

Section I : Situation and problem analysis



Purpose: Situation and problem analysis stage focuses on analysing information collected in initial assessments to understand the situation and identify problems. This involves;

- a) checking with science (secondary information etc.) climate trends in the target areas, and the study of future projections regarding how climate change is likely to affect the area and;
- b) consider how the ongoing and likely future changes may possibly change existing risks and challenges.

This section will guide you to adequately consider risks posed by climate change in the environmental, socio-economic, cultural and institutional analysis. Do remember, it may not be possible to identify how the climate will change in any specific location.

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1. Environmental context:	
<p>a. Have you considered what are the current weather-related hazards affecting the target area? i.e. what risks may be exacerbated by ongoing or expected changes in climate?</p> <p><i>* Weather-related hazards could be changing rainfall patterns, cyclones, (also known as typhoons and hurricanes), thunderstorms, hailstorms, tornados, blizzards, heavy snowfall, avalanches, coastal storm surges, floods including flash floods, drought, heat waves and cold spells, other hydro-meteorological hazards.</i></p>	<input type="checkbox"/> Y <input type="checkbox"/> N
<p>b. Have you checked what evidence of climate change is already being observed in the target area (by people and/or verified by climate data)?</p> <p><i>Note: This could be based on scientific data and/or community observations. Wherever possible community observations should be validated by scientific information</i></p> <p><i>Example:</i></p> <ul style="list-style-type: none"> • Changes in weather pattern (temperature, rainfall, seasonality) • Changing trends in climate hazards that are being observed or predicted (changes in frequency and intensity of hazards) For example: are droughts likely to occur more frequently? Will floods become more extensive? • Evidence of changing in environmental factors such as water, soil, air, plant or animals. 	<input type="checkbox"/> Y <input type="checkbox"/> N
<p>c. Have you checked what are future climate projections for Sri Lanka region ?</p> <p><i>Note: Check the latest IPCC trends and projections on changing temperatures, changes to the rainy season. Also seek information from the Meteorological Department or research reports.</i></p> <p><i>Remember, it is not possible to "zoom in" and obtain climate projections for a specific site – only regional scale projections (with different levels of "certainty" depending on type of climate parameter)</i></p>	<input type="checkbox"/> Y <input type="checkbox"/> N
<p>d. Have you checked if there are reports of marked changes in disaster patterns in the target area and have you considered what other factors may possibly be involved?</p> <p>Note: For example, more people affected by river floods may be induced not only by more extreme rainfall events, but also by different population/settlement patterns and deforestation in the areas up-river from flood-affected areas</p>	<input type="checkbox"/> Y <input type="checkbox"/> N
2. Socio-Economic and Cultural Context	
<p>a. Has there been an identification of social or economic groups within the community that are particularly vulnerable to the (weather-related) risks that may be exacerbated by climate change?</p>	<input type="checkbox"/> Y <input type="checkbox"/> N
<p>b. Have you assessed how the current climate patterns and future climate scenarios will affect livelihoods?</p> <p><i>Note: In analysis consider the following:</i></p> <ul style="list-style-type: none"> • Who will get most affected? <input type="checkbox"/> Y <input type="checkbox"/> N • How will they get affected? <input type="checkbox"/> Y <input type="checkbox"/> N • How will this affect related industries? <input type="checkbox"/> Y <input type="checkbox"/> N • How will the situation change in future? <input type="checkbox"/> Y <input type="checkbox"/> N • What actions have been taken by the communities to cope? <input type="checkbox"/> Y <input type="checkbox"/> N • What are the opportunities and constraints? <input type="checkbox"/> Y <input type="checkbox"/> N • Have you considered concerns with water availability and usage patterns related to livelihood? <input type="checkbox"/> Y <input type="checkbox"/> N 	<input type="checkbox"/> Y <input type="checkbox"/> N

<p>c. Have you assessed how the current climate patterns and future climate scenarios will affect health of the population in your project/programme area*?</p> <p><i>Note: In analysis consider the following:</i></p> <ul style="list-style-type: none"> • Who will get most affected? <input type="checkbox"/> Y <input type="checkbox"/> N • How will they get affected? <input type="checkbox"/> Y <input type="checkbox"/> N • How will the situation change in future? <input type="checkbox"/> Y <input type="checkbox"/> N • What actions taken by the communities? <input type="checkbox"/> Y <input type="checkbox"/> N • What are the opportunities and constraints? <input type="checkbox"/> Y <input type="checkbox"/> N • Have you considered the concerns with water availability, collection and usage patterns related to health? <input type="checkbox"/> Y <input type="checkbox"/> N <p><i>* Health impacts could include 1) food and water borne diseases (Eg: diarrhoea, salmonella, hepatic A, and other bacterial diseases, allergies), 2) air borne diseases (Eg: allergies, asthma, lung diseases, respiratory diseases, cardio vascular diseases), 3) vector borne diseases (Eg: dengue, malaria) 4) mental health impacts (depression, psychosocial disorders) 5) malnutrition 6) extreme heat related impacts (Eg: sun burn, heat stroke, skin diseases, dehydration), extreme cold related impacts (Eg: snow bites, frost bites)</i></p>	<p><input type="checkbox"/> Y <input type="checkbox"/> N</p>
<p>d. Have you assessed how the current climate patterns and future climate scenarios will affect shelter safety?</p> <p><i>Note: In analysis consider the following:</i></p> <ul style="list-style-type: none"> • Have the present and future climate risks been considered in settlement planning? <input type="checkbox"/> Y <input type="checkbox"/> N • Have the present and future climate vulnerabilities been considered in construction of shelter and infrastructure? <input type="checkbox"/> Y <input type="checkbox"/> N • Who will get most affected? <input type="checkbox"/> Y <input type="checkbox"/> N • How will they get affected? <input type="checkbox"/> Y <input type="checkbox"/> N • How will the situation change in future? <input type="checkbox"/> Y <input type="checkbox"/> N • What actions have been taken by the communities? <input type="checkbox"/> Y <input type="checkbox"/> N • What are the opportunities and constraints? <input type="checkbox"/> Y <input type="checkbox"/> N 	<p><input type="checkbox"/> Y <input type="checkbox"/> N</p>
<p>e. Have you identified coping/adaptation strategies used by different groups to deal with current climate variability and extremes?</p> <p><i>Note: Also take into consideration how the existing social networks have been or are likely to be affected? Take in to consideration any tensions or conflicts that may lead to disruption of social cohesion</i></p>	<p><input type="checkbox"/> Y <input type="checkbox"/> N</p>
<p>f. Have you considered how climate change affect or may affect rural vs urban communities?</p> <p>What are the factors influencing the present and future vulnerabilities in rural and urban settlement?</p>	<p><input type="checkbox"/> Y <input type="checkbox"/> N</p>
<p>g. Any significant population movement observed or have you considered possible trends on adverse impact of climate change?</p>	<p><input type="checkbox"/> Y <input type="checkbox"/> N</p>

3. Institutional Context:	
a. Have you identified the other organizations working on addressing issues related to climate change?	<input type="checkbox"/> Y <input type="checkbox"/> N
b. Have you taken into account relevant policies and institutions which would have an impact on promoting or constraining adaptation? <i>Note: For example Government of Sri Lanka National and Local Adaptation Plans, policies on water management, seeds and plants and so on.</i>	<input type="checkbox"/> Y <input type="checkbox"/> N
c. Have you identified the actions these organizations taken to address the issues related to climate change?	<input type="checkbox"/> Y <input type="checkbox"/> N
d. Have you identified any gaps in the actions of the present actors in addressing issues related to climate change? <i>Note: how your programme may supplement ongoing activities to fill the gaps identified</i>	<input type="checkbox"/> Y <input type="checkbox"/> N
e. Have you identified organizations that may be potential partners in addressing issues related to climate change? <i>Note: Please provide names</i>	<input type="checkbox"/> Y <input type="checkbox"/> N

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Section II: Design stage



Purpose: This section will guide you to consider addressing risks posed by climate change in developing project/programme goal, objectives, intended results, indicators and assumptions.

1. Defining goal, objectives and results	
a. Do your goal, objectives and results contribute towards reducing vulnerability of the target population to climate change and the underlying causes?	<input type="checkbox"/> Y <input type="checkbox"/> N
2. Selection of target groups	
b. Have you identified target groups which would be more vulnerable to impacts of climate change? <i>Note: These groups could be based on gender, age, religion, culture, disability, livelihood etc.</i>	<input type="checkbox"/> Y <input type="checkbox"/> N
3. Developing indicators	
a. Are there specific indicators developed to monitor the effectiveness and impact of activities designed to strengthen the resilience of communities to climate change? <i>For example: If the activity is using new varieties of paddy seeds in a livelihood diversification initiative, then the climate specific indicator could be its resistance to drought/salinity etc</i>	<input type="checkbox"/> Y <input type="checkbox"/> N
b. Are there indicators for measuring the adaptive capacity of the proposed interventions? <i>Note: Examples of adaptive capacity are given in table 1</i>	<input type="checkbox"/> Y <input type="checkbox"/> N
4. Assumptions and risks	
a. Have you considered role, participation and commitment of all relevant stakeholders engaged in addressing issues of climate change in the project/programme?	<input type="checkbox"/> Y <input type="checkbox"/> N
b. Have you taken into consideration what risks may future climate projections pose to the project's success? <i>Note: This information can be obtained from the IPCC reports, supplemented by interpretations from Meteorological Department, studies, research etc.</i>	<input type="checkbox"/> Y <input type="checkbox"/> N
c. Have you considered all possible (intended and unintended impact of the activities included in the project (Refer to 'Do no harm policy') i.e., while striving to reduce vulnerability we must avoid exposing the population to new risks which may be aggravated by Climate Change	<input type="checkbox"/> Y <input type="checkbox"/> N

TABLE 1: EXSAMPLES OF ADAPTIVE CAPACITY ⁴	
Human	Knowledge of climate risks, conservation agriculture skills, good health to enable labour
Social	Women's savings and loans groups, farmer-based organizations, traditional welfare and social support institutions
Physical	Irrigation infrastructure, seed and grain storage facilities
Natural	Reliable water sources, productive land, vegetation and trees
Financial	Micro-insurance, diversified income sources

⁴ http://www.careclimatechange.org/files/toolkit/CARE_CBA_Toolkit.pdf,

Section III: **Towards implementation**



Purpose: This section will guide you to adequately consider addressing risks posed by climate change in planning and allocations of resources and conducting activities.

1. Scheduling activities	
a. Does the VCA or other participatory tools enable you to identify climate change related issues?	<input type="checkbox"/> Y <input type="checkbox"/> N
b. Have you involved groups vulnerable to the impacts of climate change in the planning process?	<input type="checkbox"/> Y <input type="checkbox"/> N
c. Have you included activities that would increase the resilience of communities to climate change? <i>Note: This could include promotion of appropriate agricultural technologies, and/or livelihoods diversification (within and away from agriculture), as well as activities which help to protect or restore natural systems or processes, increase in water storage such as rainwater harvesting, health analysis etc.</i>	<input type="checkbox"/> Y <input type="checkbox"/> N
d. Have you included activities that would build the capacities of local stakeholders and target groups to plan and implement adaptation activities?	<input type="checkbox"/> Y <input type="checkbox"/> N
e. Have you included activities that would aim to address underlying causes of vulnerability to climate change impacts? <i>Note: This could include activities addressing development planning, policy advocacy, poverty reduction etc.</i>	<input type="checkbox"/> Y <input type="checkbox"/> N
f. Have you included activities that would promote an enabling institutional and policy environment for adaptation? <i>Note: This could include consultations, seminars, workshops which include government authorities and other key stakeholders at various levels.</i>	<input type="checkbox"/> Y <input type="checkbox"/> N
g. Are there activities included which would build the capacities of the branches and volunteers to consider and facilitate climate change dialogue?	<input type="checkbox"/> Y <input type="checkbox"/> N
2. Human resource planning	
a. Does the project team have adequate and appropriate technical capacities and experience to give input on climate change and related issues?	<input type="checkbox"/> Y <input type="checkbox"/> N
b. If the team has limited technical capacity and experience to give input, does the project include activities to build the capacities of the team?	<input type="checkbox"/> Y <input type="checkbox"/> N
c. If the team has limited technical capacity and experience to give input, does the project plan to develop appropriate partnerships to supplement this?	<input type="checkbox"/> Y <input type="checkbox"/> N
3. Allocation of budget and resources	
a. Is there an allocation of resources for scientific and technical capacity on climate change (within the project team, or through partnerships or consultancies). <ul style="list-style-type: none"> • Expertise in climate change. • Information & knowledge management capacity. • Expertise in gender and diversity. • Expertise in disaster risk reduction. 	<input type="checkbox"/> Y <input type="checkbox"/> N

<p>b. Is there an allocation of resources (human and financial) for:</p> <ul style="list-style-type: none">• participatory analysis of vulnerability and capacity, including institutional capacities? <input type="checkbox"/> Y <input type="checkbox"/> N• capacity development of staff, target groups and project stakeholders in CCA? <input type="checkbox"/> Y <input type="checkbox"/> N• ongoing monitoring of project context, including climate variables? <input type="checkbox"/> Y <input type="checkbox"/> N• external evaluations of project process and results? <input type="checkbox"/> Y <input type="checkbox"/> N• sharing knowledge of the project internally - within the project team, among target groups, and project stakeholders? <input type="checkbox"/> Y <input type="checkbox"/> N• sharing knowledge of the project externally - civil society organization, government authorities at various levels, academia? <input type="checkbox"/> Y <input type="checkbox"/> N• travel to workshops and conferences to disseminate project results and lessons? <input type="checkbox"/> Y <input type="checkbox"/> N	<p><input type="checkbox"/> Y <input type="checkbox"/> N</p>
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Section IV: **Monitoring, evaluation and sharing**



Purpose: This section focuses on ensuring climate change indicators are integrated into the project's Planning, Monitoring, Evaluation and Reporting (PMER) system. It is necessary that climate specific indicators and reporting are included into the process so that it is possible to understand and know if the activities and strategies have an implication on the climate induced risks which were identified and subsequently address through this project.

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1. Monitoring & Evaluation	
a. Are project stakeholders, including particularly vulnerable groups involved in the monitoring & evaluation of the project's progress towards reducing climate vulnerability?	<input type="checkbox"/> Y <input type="checkbox"/> N
b. Is there any specific strategy for tracking increasing community resilience towards climate vulnerability against identified indicators? <i>Note: project needs to track both intended and unintended impacts of project activities.</i>	<input type="checkbox"/> Y <input type="checkbox"/> N
2. Considering Cross-Cutting Issues	
a. Will the project address vulnerabilities of various disadvantaged groups (based on their gender, age, religion, culture, disability etc) to climate change?	<input type="checkbox"/> Y <input type="checkbox"/> N
b. Will the project contribute to creating opportunities for community groups to have access to critical resources related to climate change adaptation?	<input type="checkbox"/> Y <input type="checkbox"/> N
c. Will the project contribute to creating opportunities for community groups to engage in local and national decision-making?	<input type="checkbox"/> Y <input type="checkbox"/> N
3. Information and Knowledge Management	
a. Is there a process for review, reflection and learning for improvement of climate risk reduction measures within the project/programme process?	<input type="checkbox"/> Y <input type="checkbox"/> N
b. Is there any mechanism for collection and recording of information achievements, challenges and best practices related to addressing issues of climate change?	<input type="checkbox"/> Y <input type="checkbox"/> N
c. Are there mechanisms or strategies for disseminating information on achievements, challenges and best practices related to addressing issues of climate change gained through the project/programme? <i>Note: This could include case studies on achievements, challenges and best practices of adaptive capacities, and initiatives of addressing climate change developed for print and website, lesson learned workshop, project newsletters etc</i>	<input type="checkbox"/> Y <input type="checkbox"/> N
d. Does the project have a strategy to disseminate findings/results of the projects to influence local and national policies/practices on climate change? <i>Note: this could be for increase in focus and resource allocation for vulnerable people to adapt to climate change.</i>	<input type="checkbox"/> Y <input type="checkbox"/> N

Glossary⁵:

Adaptive capacity

The ability of a system (individual or community) to adjust to climate change (including climate variability and extremes) to moderate potential damages, to take advantage of opportunities, or to cope with the consequences.

Capacity

The combination of all the strengths, attributes and resources available within a community, society or organisation, that can be used to achieve agreed goals.

Climate:

The climate of an area is its local weather conditions – such as temperature, precipitation (rainfall, snow, etc.), humidity, sunshine, cloudiness, wind, and air pressure. It is the weather averaged over a long period of time, taking account of the average conditions as well as the variability of these conditions. Some people say climate is what you expect, and weather is what you get.

Climate change:

A significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer). Climate change can result from both natural changes (such as changes in the sun's intensity or oceanic circulation) and human activities that alter the gaseous composition of the atmosphere (such as fossil fuel burning or deforestation).

Climate change adaptation:

“Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderate harm or exploit beneficial opportunities.” The definition recognizes that humans can adjust to past (“actual”) climate change and its impacts, or prepare for projected future (“expected”) climate change and its impacts. Adaptation can include changes in behaviour, technology, institutions, policies, and other aspects of human systems. (IPCC Definition)

Climate change mitigation:

Actions that reduce the sources of greenhouse gases, or enhance carbon sinks. Examples include using fossil fuels more efficiently for industrial processes or electricity generation, switching from oil to natural gas as a heating fuel, improving the insulation of buildings, and expanding

forests and other sinks to remove greater amounts of carbon dioxide from the atmosphere. (UNFCCC)

Climate proofing:

Climate proofing is the modification of existing and future projects so that they are resilient to impacts from climate change and/or do not contribute to increased vulnerability of the projects goals. (Klein et al., 2007)

Climate-smart:

A climate smart organization results from the systematic integration of climate change impacts – alongside other risks and opportunities and themes – into core programmes, policies and activities at different levels.

Coping capacity

The ability of people, organizations and systems, using available skills and resources, to face and manage adverse conditions, emergencies or disasters.

Disaster

A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.

Disaster risk

The potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period.

Disaster risk reduction

The concept and practice of reducing disaster risks through systematic efforts to analyse and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.

Environmental degradation

Deterioration of the environment through depletion of resources such as air, water and soil; the destruction of ecosystems and the extinction of wildlife.

Exposure

People, property, systems, or other elements present in hazard zones that are thereby subject to potential losses.

5 A guide to mainstreaming disaster risk reduction and climate change adaptation. IFRC

IFRC plan of action Climate change 2013-2016

Food insecurity

A situation that exists when people lack secure access to sufficient amounts of safe and nutritious food for normal growth and development and an active and healthy life. It may be caused by the unavailability of food, insufficient purchasing power, inappropriate distribution, or inadequate use of food at the household level. Food insecurity may be chronic, seasonal, or transitory.

Global warming:

The progressive rise of the earth's surface temperature caused by the enhanced greenhouse effect. Global warming may be responsible for changes in global climate patterns.

Greenhouse Gas (GHG):

Naturally occurring and human-made gases that trap infrared radiation as it is reflected from the earth's surface, trapping heat and keeping the earth warm. The six main GHGs whose emissions are human-caused are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF₆)

Hazard

A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

Hydro-meteorological hazards:

Process or phenomenon of atmospheric, hydrological or oceanographic nature that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

Land-use planning

The process undertaken by public authorities to identify, evaluate and decide on different options for the use of land, including consideration of long term economic, social and environmental objectives and the implications for different communities and interest groups, and the subsequent formulation and promulgation of plans that describe the permitted or acceptable uses.

Livelihoods

Livelihoods comprise the capabilities, assets and activities required for generating income and securing a means of living.

Mainstreaming:

In the context of climate change, mainstreaming implies that awareness of climate impacts and associated measures to address these impacts, are integrated into the existing and future policies and plans of developing countries, as well as multilateral institutions, donor agencies and NGOs. (Mitchell et al., 2006)

Natural resource management

The management of natural resources in favour of development that is economically viable, socially beneficial, and ecologically sustainable.

Resilience

The ability of individuals, communities, organisations, or countries exposed to disasters and crises and underlying vulnerabilities to anticipate, reduce the impact of, cope with, and recover from the effects of adversity without compromising their long term prospects.

Risk

The combination of the probability of an event and its negative consequences.

Risk assessment

A methodology to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property,

Risk management

The systematic approach and practice of managing uncertainty to minimize potential harm and loss.

Sustainable development

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Vulnerability

The characteristics and circumstances of a community, system, or asset that make it susceptible to the damaging effects of climate change and other hazards.

Weather:

Is the set of meteorological conditions- wind, rain, snow, sunshine, temperature, etc – at a particular time and place.

