

FOOD SECURITY, AGRICULTURE AND NATURAL RESOURCES



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IMPACTS OF CLIMATE CHANGE

Impacts of climate change are increasingly being felt by people around the world and impacts are projected to increase in the coming years. Changing weather patterns, rising temperatures and increasing occurrence of droughts and floods are typical impacts making life more difficult among the poor in the Global South. Climate change challenges poverty reduction and resilience. For all interventions, it is important to target the most vulnerable as part of the approach as they are the most exposed to climate change impacts.

HOW TO USE THIS CLIMATE INTEGRATION TOOL

This climate integration tool is primarily intended for assisting organisations, which are not having climate change actions as their core area of operation. As CISU, we want to **support our member organisations to further integrate climate action in their development work.** Integrating climate actions is defined as the process of inclusion of climate change related actions into sector implementation, outcomes and policies.

How to use this tool

The climate tool has two main sections, one on **ENTRY POINTS** with **KEY QUESTIONS FOR YOUR ANALYSIS** related to climate action integration when developing your intervention. Here you will also find inspiration on where to look for relevant information.

The second section **OPPORTUNITIES FOR INTEGRATION** has examples and practical

inspiration on **ACTIVITIES AND APPROACHES**, as well as examples on outcomes and indicators for climate action integration.

When should we think climate?

In the intervention preparation phase, ask yourselves and your partners the following questions to find out whether climate actions are relevant:

- **Is the target group impacted by climate change?**
- **Is the thematic focus impacted by or impacting on climate change?**

If you can answer yes to any of these questions, this climate tool can provide inspiration on how to get started with integrating climate actions in your intervention!

CLIMATE ACTION

It covers adaptation, mitigation, risk reduction and resilience building. It is linked to disaster risk reduction and closely linked to green economy and environmental management.

ADAPTATION

Climate change adaptation is the processes by which human beings and societies adjust to changes in climate by making changes in production systems and social and economic organisation in order to reduce vulnerability to changing climatic conditions. Adaptation is closely linked to building resilience of societies and contributes to people's adaptive capacity. In many ways, it resembles good sustainable development.

MITIGATION

Mitigation is limited to the processes by which human beings and societies address the various human activities with potential to reduce emission of greenhouse gas. With CISU funded interventions having a focus on poverty reduction, the focus in climate action integration will naturally be on adaptation. Mitigation should be understood mainly as a co-benefit in the process.

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HOW-TO-GUIDE ON INTEGRATION OF CLIMATE ACTION IN DEVELOPMENT WORK



ENTRY POINTS

Interventions that address agriculture and natural resource management (SDG 15) are typically also addressing food security (SDG 2). And they are often linked to value chain development and farmer organisation (SDG 12). Agriculture, food security and rural development face similar challenges regarding climate change. Thus, here they are addressed under one heading.

Agriculture and food systems, including crop, livestock, fisheries and forestry production have to improve and become more efficient in resource use (use less land, water and inputs to produce food more sustainably combined with reducing food loss and waste) to meet the future challenges.

These sectors also need to adapt to climate change and natural resource pressure and contribute to mitigating climate change. Central to agriculture and food systems is the need to focus on building resilience of people, communities and ecosystems. This is key to sustainable agriculture and key to the integration of climate action in the sector/s.

Agriculture, food systems and natural resources are among the key priority sectors in relation to integration of climate action. Typically, these sectors are significantly impacted or likely to be impacted by climate change.

Sector Policies

The entry points for seeking information on integrating climate action include the agricultural sector policies, plans and programmes for the specific countries. Also, sector documents related to forestry and natural resources are relevant.

National Climate Plans

Other entry points are the NAPs, the NAPAs, the NDCs and the National Communications for the respective countries. The NAPs can be accessed here: UNFCCC-NAPs. The NAPAs can be accessed here: UNFCCC-NAPAs. The NDCs can be accessed here: UNFCCC-NDCs, and the National Communications can be accessed here: UNFCCC – National Communications. All the documents will have information relevant to the sector.

Typically, they have many possible actions to address climate action integration in the agriculture, food systems and natural resources

sector. In the NDCs, there are good sections addressing adaptations in the agriculture, food systems, natural resources sector.

World Bank

Another entry point, where a good amount of relevant data on climate actions can be found is the World Bank Climate Change Knowledge Portal that can be accessed through this link: [WB CC knowledge – country profiles](#) (go to country heading and select a country). On this portal, you will find the climate and adaptation profile of each country with data such as: natural hazard affecting the country, the climate future, the current and future impacts and adaptation options. This information might help you integrate climate change information and climate action into your intervention.

Local Development Plans

Important entry points for many interventions, which are addressing specific activities in defined geographic areas will be the local development plans. The local development plans – typically the district or municipal development plans can have a number of climate related actions described in the sections on agriculture and natural resources.

Other Entry Points

There might be other plans, assessments and documents that are relevant to consult. They include possible Disaster Risk Reduction Plans for the specific target area (commune, district, province). These can include very relevant climate actions for the sector. Different forms of spatial plans such as land use plans for the district, province or other local administrative level might exist and give some guidance on actions within agriculture, natural resources, food system sector.

Lastly, in some cases there might exist a range of different assessments covering the target area including vulnerability assessments or participatory poverty assessments. They might have valuable information to be used in terms of integrating climate actions. Check also with other CSOs in the area, what material they might have.

There is a range of guidance notes or tools addressing climate action integration within agriculture, food systems and natural resources. Some of the most relevant include: SIDA Agric, FAO Agric, CARE Agric.

KEY QUESTIONS FOR YOUR ANALYSIS

When seeking to integrate climate action in agriculture, food systems and natural resources, reflect on the following questions:

- What are the impacts on agriculture that climate change has?
- Is it likely that the intervention area has e.g. reduced productivity and crop loss due to droughts and floods?
- What obstacles are there for sustainable land management? Will the planned activities contribute to sustainable land use practises?
- What are the strategies used by farmers to manage risks and their impact on the environment? – and what are the livelihoods-climate linkages for different groups within the communities?
- Are there underlying reasons for vulnerability to climate change and extreme events including poverty, gender and marginalisation? – Are there opportunities and locally available capacities?
- How is the institutional and policy environment related to climate change?

TYPICAL IMPACTS FROM CLIMATE CHANGE

- Negative impacts on yields and production capacity from changing weather patterns and increased hazards
- Decreasing resilience of farmers as a result of decreasing production and increasing climate shocks
- Increased food insecurity and undernourishment among vulnerable communities

CHECKLIST



Information sources in food security, agriculture and natural resources	To be found? Yes/No	Consulted? Yes/No	Relevance of information? High/Medium/Low
Sector policies, strategies, plans			
Country documents submitted to UNFCCC – NDC, NAPA, NAP, National Communications			
World Bank CC Knowledge Portal			
Local development plans			
Disaster Risks Reduction plans			
Spatial plans			
Vulnerability assessments/Poverty Assessments			
Planning for undertaking Vulnerability Assessment			



OPPORTUNITIES FOR CLIMATE INTEGRATION

Development interventions addressing food security, agriculture and natural resource management are often closely related and share opportunities for integrating climate action. Within these sectors there are several opportunities for integrating climate action.

The opportunities are primarily linked to climate adaption but often also include mitigation benefits. For example, synergies between adaptation, mitigation and food security are often found. Focus should be on building resilience of the poor (adaptation). Promoting sustainable agriculture and improved land use goes hand in hand with building resilience and adaptation to climate change among vulnerable communities.

Overall, the most effective approaches are related to reduction of vulnerability and increasing the resilience of communities and the production systems. Focus on participation and inclusion of the most vulnerable, including rights of women, must be part of the approach.

Lastly, it is important to realise that climate actions within agriculture and food systems are linked to actions within many of the other sectors. Most directly they are related to actions within water and sanitation and within value chains and microcredit.

ACTIVITIES AND APPROACHES

- Introduction or further promotion of **crops or livestock that are more resilient** to current and expected changes in climate (droughts, floods, higher temperatures). Typically, this aspect can be included in capacity development and strategic services.
- **Diversification of crops** grown by target groups and further emphasis on **intercropping** and with further emphasis on **agroforestry and perennial crops and trees grown on farms**. This address both adaptation and mitigation and is relevant in capacity development as well as in strategic services.
- Promoting **soil and water conservation measures** in the farming landscape introducing or further promoting various sustainable farming practises including building soil quality and improving access to nutrients. This address both adaptation and mitigation and could be addressed in capacity development and supported by strategic services.
- Improving the **management of forest and natural ecosystems** that are supporting important ecosystem functions and services. Related to both adaptation and mitigation. Promoting rights of local communities will be part of this. It is relevant in advocacy, in capacity development as well as in strategic services.
- Addressing **improved crop irrigation** with more efficient use of water. Related to capacity development and strategic services.
- Addressing **range land management** for increased range land productivity and resilience. To be addressed through capacity development and strategic services.
- **Diversification of rural livelihoods** to include a wider range of productive strategies. Seek opportunities for rural incomes from improving the status and productivity of natural resources, and payments for ecosystem services and carbon storage. To be included in capacity development and strategic services.
- **Advocacy** for appropriate policies and implementation on the need for supporting development of agriculture and natural resource management that are promoting climate resilience of local communities. Directed at local governments and sector departments.
- Promoting **policies and plans** in support of **sustainable food system** and building of **local resilience**. Primarily within advocacy and in relation to capacity development activities.
- Addressing **land use planning, land rights, tenure and governance** directed at local level authorities and organisations and with a focus on how to ensure sustainability and access in order to adapt and mitigate.
- In interventions dealing with **value chains and market access** related to agriculture/natural resources, climate actions can be integrated by further promoting products that are produced in ways that are supportive of resilient/sustainable agriculture and sustainable natural resource management. This includes also **certification and value addition** of such products. Can be addressed through advocacy, capacity development and strategic services.
- Addressing **institutional capacity development** for farmer organisations, sector departments and for extension agents in order to increase their capacity in supporting climate actions in agriculture and food systems.
- When supporting **organising of farmers**, seek to **integrate the promotion of climate action** issues in the operation of farmer organisations.
- Promote **risk transfer** through the development of **weather insurance**, increasing climate change adaptive capacity and **social transfers/food**. Typically related to advocacy activities.
- Including **climate relevant actions** in farmer **training processes** such as farmers field schools and extension support. To be addressed through capacity development activities.
- Promote better use at local level of **climate and weather forecasting** information as well as early warnings. Related to advocacy and capacity development activities.
- Investing in **social security** systems and in improving **access to finance** (microfinance) will contribute to improved resilience within the rural farming communities. Through its contribution to adaptation capacity it is also a way of integrating climate action. This is linked closely with work in other sectors. Related to advocacy, capacity development and strategic services.
- Promoting **climate proofing of infrastructure** relevant for agriculture and food systems.

MONITORING: FORMULATION OF INDICATORS

CHECKLIST



When integrating climate action in an intervention, it is important to reflect on the impact of the chosen approaches in the expected outcomes and results. Have you for example selected a climate integration focus on crop diversification and soil/water conservation measures, you should seek to have something written on improved resilience of small-scale farmers and of the food system in the expected results and outcomes.

It is important to monitor the implementation in accordance with some indicators that reflect the integrated climate actions. You need to reflect on whether the monitoring set-up include indicators of for instance adaptive capacity or resilience of farmer target group? And whether the indicators include monitoring of the institutional, planning and policy environment for adaptation?

Examples of indicators

- Adoption of sustainable and climate-resilient agriculture and land use management strategies e.g. conservation agriculture
- Efficient irrigation techniques, agroforestry, etc.
- Equitable access to and utilisation of appropriate agricultural knowledge, skills, technologies and resources by vulnerable groups e.g. soil conservation, seed selection etc.

Integration activities in food security, agriculture and natural resources	To be found? Yes/No	Consulted? Yes/No
Crop/livestock introduction		
Crop diversification, intercropping, agroforestry		
Soil and water conservation measures		
Management of forest and natural ecosystems		
Improved crop irrigation		
Range land management		
Diversification of rural livelihoods		
Advocacy for appropriate policies		
Promoting policies and plans		
Land use planning, land rights, tenure and governance		
Resilience and greening of value chains, markets access, certification		
Institutional capacity development		
Promotion of climate action in farmer organising		
Risk transfer, weather insurance, social transfers/food		
Farmer training processes to include climate action		
Climate and weather forecasting		
Linking to social security and access to microfinance		
Climate proofing of infrastructure		



CROP VARIETY MANAGEMENT FOR CLIMATE ADAPTATION

A CISU member and their Indian partner promote agricultural development and farmer organisation. They have jointly decided to integrate climate action in the planning for a new CISU-funded intervention. The partners have been able to access information on relevant climate actions within their field of work from several entry points.

In the adaptation information by India to UNFCCC and the agricultural sector documents, it is stressed that **introduction of greater crop variety**, including further stress on **drought resilient crops**, are relevant adaptation measures.

Information on which specific types of crops and crop varieties that are relevant for the district has been found in the more localised entry points, including the development plans and the disaster risk reduction plans for the districts.

The objectives and outputs of the proposed intervention are formulated so that **increased resilience** of the agricultural production and among the farmers is part of the results framework. Indicators are formulated around **crop variation and increased farming of drought resilient crops**.

The practical example is constructed based on experiences from interventions of different CISU members organizations.