



Government of Nepal
Ministry of Agriculture and Livestock Development
Planning and Development Cooperation Coordination Division

POLICY BRIEF



Photo: UNDP Nepal

SDG Localization through Integration of Climate Change in Agricultural Planning and Budgeting at the National and Sub-national Levels

Introduction

Agriculture contributes to about one third of Nepal's Gross Domestic Product (GDP) and employs about two-thirds of the population directly or indirectly. Agriculture being highly vulnerable to climate change, experiences far-reaching impacts with implications on Sustainable Development Goal (SDG) 1: Food security, Nutrition and Hunger and other SDGs. Since these impacts directly affect the livelihoods of a large number of people depending upon agriculture, it is important to integrate climate change in agriculture plans at all levels of government—local, provincial and federal.

The Government of Nepal (GoN) has recently made various efforts to integrate climate change in planning and budgeting across the sectors in order to make development programs climate responsive. Several guidelines have been formulated and policy reforms introduced to help the ministries in prioritization, budget allocation and expenditure tracking to support their climate goals.

To this end the GoN has recently endorsed a Climate Change Financing Framework¹ (CCFF) and prepared a roadmap to guide mainstreaming climate actions into development plans and budgets and improve accountability and reporting on the effectiveness of climate investments. The roadmap further provides guidance to the sectoral ministries in SDG implementation and localization by ensuring that climate actions are well integrated into SDG-based plans and monitoring frameworks at all levels.

This policy brief examines impacts of climate change on agriculture productivity and opportunities to improve agriculture sector planning and budgeting based on CCFF recommendations and its implementation at sub-national levels under federal governance structure. This note also discusses the interlinkages between CCFF and SDG implementation, puts forward why policy reforms are critical to national interest.

¹ Government of Nepal Climate Change Financing Framework, Ministry of Finance, Kathmandu, 2017.



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Damages and Losses in the Agricultural Sector

Understanding of damages and losses incurred in the sector is imperative for climate and disaster risk management, and for supporting resilience policies, plans and actions. Existing evidence suggests that climate-related disasters such as floods, landslides, and droughts are on an increase in recent years and their impact on livelihoods and food security is significant. For example, floods across the country in 2008 affected over 6 million people (30% of the population) and crop production the following winter declined by over 15% due to drought (FAO 2016)².

The overall cost of damages caused by floods, landslides, and drought in 2015 was about Rs. 2.36 billion (USD 22.7 million). Over 25,000 hectares of cropland were damaged by floods and landslides and paddy could not be planted in 61,000 hectares as a result of delayed and insufficient rain (AED, 2015)³. In 2017, the combined damages and losses caused by the floods in agriculture, livestock and irrigation was estimated to be Rs. 35.34 billion (USD 340.3 million) (NPC, 2017).

“The existing policy framework emphasizes the importance of building resilience of the agricultural sector to climate change and disasters. However, the challenge lies in translating these policies into action through regular plans and public investment.”

Various studies have projected that the overall impact of extreme climate events can erode about 1.5 to 2% of GDP per year in the water management and agricultural sectors, and higher (about 5%) in extreme years (IDS Nepal, PAC, and GCAP, 2014). The Nepal Rastra Bank (central bank) has also indicated similar losses; and an overall impact of about 2.1% of GDP (NRB Economic Review)⁴.

There are other observable impacts of climate change. Nepal's primary cash crop, rice, is highly dependent on seasonal monsoon rainfall. The onset of the monsoon and the winter rains has been delayed by about 1 to 4 weeks in recent years. An increased frequency of drought and landslides and more noticeable infestation of crops by pests have also been recorded. Meanwhile, available surface water has started to diminish with the drying up of springs in the hills and mountains. These phenomena are correlated with reductions in farm income (CBS, 2017)⁵.

² Food And Nutrition Security In Nepal: A Status Report, Ministry of Agricultural Development and Central Bureau of Statistics for the Nepal component of the FAO Project “Building statistical capacity for quality food security and nutrition information in support of better informed policies TCP/RAS/3409”, Kathmandu, 2016.

³ Bali Naliko Sthiti Tatha Maushami Pratibedan 2070-71 (Status of crops and weather report, 2070-71) published by Agriculture Extension Directorates, Lalitpur, 2015.

⁴ https://www.nrb.org.np/ecorev/pdf/files/vol25-2_art1.pdf

⁵ National Climate Change Impact Survey 2016, A Statistical Report, Central Bureau of Statistics, Kathmandu, 2017.

Policy Framework

The existing policy framework emphasizes the importance of building resilience of the agricultural sector to climate change and disasters. However, the challenge lies in translating these policies into action through regular plans and public investment.

The GoN's long-term Agriculture Development Strategy (ADS) envisions the sector developing in a manner that promotes sustainable, inclusive productivity growth and ensures food and nutrition security for the population⁶. The sector strategy outlines measures and approaches proposed to meet this vision by promoting: i) efficient and sustainable use of natural resources (land, water, soils, and forests); and ii) increased resilience to climate change and disasters. Similarly, a 10-year Priority Framework for Action (PFA) (2011-2020) for the agriculture sector emphasizes the mainstreaming of climate change and disaster risk reduction in sector policies, strategies and plans.

These policies seek to increase resilience through expanded and improved irrigation, adopting integrated water resource management techniques, recharging basins, catchment management, and non-conventional irrigation. Resilience of farmers will be enhanced through measures such as introducing stress-tolerant crop varieties, developing early warning systems, and promoting agriculture insurance, among others.

⁶ Agriculture Development Strategy (ADS), 2015-2035, Part 1, Ministry of Agricultural Development, Kathmandu, 2016.

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The Climate Change Policy (2011) serves as a national framework to address climate change and increase the resilience of farmers to climate-related shocks. It commits to disbursing 80% of available climate funds at the community level to facilitate adaptation. Likewise, Nepal's Nationally Determined Contributions (NDCs) under the Paris Agreement, submitted in 2015 (MoPE, 2016)⁷ highlights efforts to promote clean energy and climate-friendly local governance. The ability to meet these commitments, which have implications on agriculture, depends on performance of the government at the sub-national levels.

Integrated Approach to Resilience

Climate change can be optimally addressed through the national system following a whole-of-government and society approach, rather than through isolated projects. Such integrated climate responsive governance at the national and sub-national levels allows climate actions to

⁷ Nationally Determined Contributions, Ministry of Population and Environment, 2016, <http://www4.unfccc.int/ndcregistry/PublishedDocuments/Nepal%20First/Nepal%20First%20NDC.pdf>

Photo: UNDP Nepal





Photo: Renaud Meyer/UNDP Nepal

sustain longer and leads to more effective and synergistic solutions.

Reaching national targets for several of the SDGs—for example, SDGs 1, 2, 3, 5, and 12 on poverty, hunger, health, gender equality and responsible consumption and production respectively is linked to progress on SDG13 on climate action. For example, fluctuations in agricultural productivity will affect food security and nutrition, particularly for those who are more vulnerable. Therefore, climate change risks need to be identified to formulate plans for the farmers to be able to adapt to shocks.

Integrated approaches are particularly important for the agricultural sector, because outcomes of agriculture depend on the performance of many other sectors, such as water, forestry, environment and disaster reduction. They can also help in overcoming a compartmentalization of challenges that are interconnected and drift toward narrow technological solutions, thereby ensuring higher levels of resource efficiency. In this way building resilience of agriculture through climate actions will contribute to achieve the SDGs and meet the national commitments under NDC.

“This integration allows planners to better address sector-specific climate risk and vulnerability through regular programs.”

Climate Change in Planning and Budgeting

Under a federal system of governance, Nepal has three tiers of government – federal, provincial and local – consisting of seven provincial governments and 753 local governments, each with constitutional mandates to independently plan and implement development programs. The GoN’s roadmap for attaining the SDGs rests on the ability of sub-national governments that are responsible for delivering vital public services (NPC, 2017)⁸. In line with the new federal governance system and SDG roadmap, the agriculture plans need to be developed and implemented at the sub-national level. Accordingly, efforts made towards integrating climate change in agricultural development plans and budgets need to further extend to the sub-national levels.

Nepal has already made significant progress in integrating climate change in plans and budgets through different entry points in the Public Financial Management (PFM) systems. This integration allows planners to better address sector-specific climate risk and vulnerability through regular programs. It has also allowed to initiate inter-sectoral coordination in budget allocation to climate related programs that can support synergies.

Nepal was one of the first countries to adopt a budget code for climate change, as far back as 2012. Eleven broad criteria are used to identify and classify climate-related programs according to their objective and level of relevance. The

⁸ Sustainable Development Goals Road Map, 2016/2030, National Planning Commission, Kathmandu, 2017.

GoN publishes the budget allocated to climate related development programs annually, and the Financial Controller General's Office (FCGO) publishes information about climate budget expenditure in its annual report. The CCFE is also helping to link climate policies and strategies with budget allocations, to be supported through the Climate Finance Unit in the Ministry of Finance (MoF).

Despite these advances, challenges remain. Budget system reforms at the central level are yet to be effectively implemented within the Ministry of Agriculture and Livestock Development (MoALD). Existing climate code for agriculture sector planning and budgeting is still not able to fully capture several climate responses needed to reduce the impacts. As such, agriculture sector programs should be typically planned as *a priori* climate responses or investments. This requires development of detailed sector specific climate codes by those who are actually involved in agriculture planning. Methodology related to tagging of existing programs to climate budget code and tracking of expenditure to measure progress against climate results needs to be further refined. At present, it overlooks sector-specific nuances and lack a level of granularity to be beneficial for planning. As a result, it is likely that climate-relevant programs could be either over-marked or under-marked during planning. In addition, the current system only codes central or national level programs of the federal ministry and is not useful for sub-national level planning and budgeting hence not compatible for SDG localization.

Still, the volume of funds spent on advancing climate actions in the sector indicates the enormity of the problem

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and priority accorded by the MoALD. Roughly half of the budget allocated to MoALD⁹ has been classified as climate-relevant. Therefore, there is an urgent need to ensure that programs are designed and budgeted effectively with clear climate outcomes based on existing evidence of effective and scalable solutions that justify investments. However, at sub-national levels in lack of an effective tool for climate responsive planning and budgeting most of agriculture programs are likely to be implemented without proper analysis of climate impacts and actions needed to reduce the impacts.

Closing the Adaptation Gap

The Adaptation Gap refers to the difference between required adaptation needs as indicated by climate vulnerability assessments and the climate related activities

⁹ At national level the MoAD ranked second in 2013 with about 20% of the total national climate related budget among the 11 ministries that had climate related program and budget.

Photo: Chandra Shekhar Karki/UNDP Nepal





Photo: UNDP Nepal

implemented through regular plans at the sub-national level. The information collected by the erstwhile District Agriculture Development Offices on water induced disasters, shifts in altitudinal ranges of crops, changes in the behaviour of insects/pests, loss of local water sources can be used as a basis to assess the adaptation gap. This gap can be narrowed through more effective resource allocation, applying cost-benefit analysis and other means to ensure projects incorporate climate change as a performance criterion.

Sub-national governments have resources from multiple sources including tax and non-tax revenue, internal loans, and grants such as equalization, conditional, complementary and special grants. The MoALD sends conditional grants to the provinces and local governments to implement agriculture projects. For example, Rs 4.16 billion (USD 40 million) (17.4%) out of a total budget of Rs. 23.937 billion (USD 230 million) for the FY 2018/19 was transferred to provinces and Rs. 2.18 billion (USD 21 million) (9.1%) to local governments. It is important that guidelines for climate screening and investment appraisal, appropriate to the sub-national level, are also adopted.

“Tracking climate programs in the sector portfolio can help in improving resilience and allow planners to make decisions on why a particular response has been planned.”

Moving Forward

Develop strategy to enhance resilience to climate related damages and losses

Farmers are finding it more and more difficult to deal with the challenge of climate change. Climate-related damages and losses have increasingly undermined the efforts to contribute to food and nutrition security. In order to make agriculture climate resilient in the long run as envisioned by the ADS, a working strategy to help farmers minimize the losses from climate impacts need to be devised and agreed.

- » *An intra-ministerial task force with members representing various units within MoALD is required to be set up to work together to define clearer linkages between National Climate Change Policy objectives and the ADS provisions in order to come up with a future strategy. The NAP process can be leveraged to integrate climate adaptation objectives in programming to achieve ADS Outcome 2 (higher productivity) as well as ADS output 2.6 (expanded and improved irrigation) and output 2.11 (improved resilience of farmers to climate and disaster shocks).*

Integrate climate change in agricultural planning and budgeting

Addressing climate change requires making systemic responses to climate impacts as a regular business of agriculture sector through agricultural development programs. Separate ad-hoc actions to address climate change do not bring lasting results. The National Adaptation Plan (NAP) process can serve as a mechanism for integrating climate change adaptation objectives in sector strategies. Based on the learning from NAP for Agriculture (NAP-Ag), the process of integrating climate change in planning and budgeting at the sub-national level needs to be initiated without delay. Methods being piloted under NAP-Ag can be used as a basis to assess risk and vulnerability broadly for the sector.

- » *The cost and benefits of investments in larger projects need to be assessed systematically. NAP-Ag has established a method for investment appraisal that takes these into account in light of assessed climate vulnerability. Planners need to be sensitized on the ministry's climate objectives and trained on the identification of climate change relevant programs at federal and provincial levels. A deeper understanding of common climate risks before budget proposals should be prepared.*

Improve climate budget code for climate resilient agriculture planning

Clearer budgetary guidelines for the sector can facilitate improvements in coding system and help minimize subjective interpretation of the coding criteria applied to agricultural programs. For example, current coding criteria exclude the regular programmes of agriculture sector such as non-conventional irrigation and water harvesting, which are implicated by climate, from being counted as climate relevant. Such programmes are therefore budgeted outside the climate code.

- » *As an important further step in improving the planning and budgeting, the methods and criteria used to define climate relevant programs in the budget code needs to be modified and customized to cover sector specific requirements. More refined criteria and granulated typologies are required to better classify climate-relevant programs to reflect sector-specific needs and nuances. The level of details required for classifying the activities need to be rationalised to fit into the Line Ministry Budget Information System (LMBIS) without much modifications.*

Photo: UNDP Nepal





Photo: Chandra Shekhar Karki/UNDP Nepal

Conclusion

As Nepal moves forward with implementation of CCFF and its future roadmap to address climate impacts in a systemic manner, MoALD remains committed to further work on the roadmap to make the agriculture sector climate resilient and be able to maintain agricultural productivity in the long run. This commitment along with the promise of taking the national efforts down to the sub-national levels under the federal governance system has to be further aligned with SDG-based planning and monitoring. This is important to ensure that there is no disconnect between the work being done under climate finance and the process to be adopted for SDG implementation.

This calls for applying objectivity in planning, budgeting and tracking of investments across the program portfolio under MoALD and the planners to understand the rationale behind each climate action and explain how it contributes to address climate risks. A justification for specific budget allocation for a climate action or programme must be drawn from gap analysis and vulnerability assessments in order to avoid subjective interpretations.

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