



The World Bank

Food and Nutrition Security Enhancement Project II (P181087)

Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 19-Apr-2023 | Report No: PIDC36093

**BASIC INFORMATION****A. Basic Project Data**

| | | | |
|--|--|---|--|
| Country Nepal | Project ID P181087 | Parent Project ID (if any) | Project Name Food and Nutrition Security Enhancement Project II (P181087) |
| Region SOUTH ASIA | Estimated Appraisal Date May 05, 2023 | Estimated Board Date Aug 31, 2023 | Practice Area (Lead) Agriculture and Food |
| Financing Instrument Investment Project Financing | Borrower(s) Nepal | Implementing Agency Ministry of Agriculture and Livestock Development | |

Proposed Development Objective(s)

The PDO is to enhance climate resilience, improve agricultural productivity and nutrition practices of targeted smallholder farming communities in selected areas of Nepal.

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

| | |
|--------------------|-------|
| Total Project Cost | 20.00 |
| Total Financing | 20.00 |
| of which IBRD/IDA | 0.00 |
| Financing Gap | 0.00 |

DETAILS**Non-World Bank Group Financing**

| | |
|--|-------|
| Trust Funds | 20.00 |
| Global Agriculture and Food Security Program | 20.00 |

Environmental and Social Risk Classification

Moderate

Concept Review Decision

Track II-The review did authorize the preparation to continue



Other Decision (as needed)

B. Introduction and Context

Country Context

1. **Over the past decade, Nepal's economy has demonstrated impressive growth and resilience when faced with a wide variety of economic shocks.** Movement restrictions and the shut-down of tourism during the COVID-19 pandemic resulted in Nepal's first economic contraction in almost 40 years in FY20. A decisive vaccine roll-out and reopening of the borders have supported the economy's recovery, with growth inching up to 4.2 percent in FY21 and accelerating further to 5.8 percent in FY22.

2. **The growth momentum continued in FY22, with industries and services expanding by 10.2 and 5.9 percent, respectively.** Agricultural growth remained steady and did not benefit from the demand expansion. An uneven and slow jobs recovery now poses risks to poverty reduction and can exacerbate existing inequalities. A rapid increase in domestic demand following the pandemic has fueled imports, which have recovered much faster than Nepal's traditional external financing sources. With imports outpacing foreign exchange earnings during FY22, Nepal drew down on foreign exchange reserves to finance trade. The current account deficit widened to 12.8 percent of GDP in FY22. Average consumer inflation accelerated in FY22, buoyed by non-food and services inflation. Nepal's fiscal deficit narrowed in FY22, registering 3.5 percent of GDP and continuing a two-year declining trend after peaking at 5.4 percent of GDP in FY20. Under the baseline scenario, growth is expected to decelerate over the medium term as pandemic-era stimulus continues to unwind.

3. **A new federal government took office on December 25, 2022.** The coalition government, supported by a seven-party alliance, took office following the successful completion of federal and provincial elections on November 20, 2022. municipality government level elections were held on May 13, 2022. This puts in place the governments for the next five-year term at the federal, provincial, and municipality government level. The new federal government has highlighted amongst its priorities the need for reforms in service delivery and development spending.

Sectoral and Institutional Context

4. **Nepal's agriculture remains characterized by subsistence farming with the continued adoption of traditional farming practices.** Small landholding of less than one hectare per capita makes farming less profitable and competitive. Low returns from small landholding farming systems have encouraged youth to abandon farming and explore better prospects in cities and abroad. The under-performance of and low returns from agriculture calls for urgent adoption of more efficient market-based farming systems, targeting niche crops exclusive to Nepal's topography and which yield higher outputs and prices per unit of land. These include nutrient rich, forgotten minor crops like lentil, millet, buckwheat, finger millet, local beans and such.

5. **The agriculture sector faces multi-faceted challenges, including, *inter alia*:** (i) low availability of good quality seed, improved animal breeds, and other farmer-level inputs; (ii) thinly spread and inadequate extension support with weak research-extension-farmer linkages; (iii) low investment in productive assets, including supplementary irrigation infrastructure to reduce rain-dependence; (iv) poor market linkages due to high transfer and transaction costs and weak market leverage of small farmers; and ; and (v) impacts of climate change evidenced through changes in pest dynamics, irregular rainfall pattern, declining soil fertility as a result of low organic matters, lack of irrigation (heavy reliance on



rainfed farming system) (vi) inadequate institutional capacity to support resilience, and (vii) volatile markets and weak nutrition sensitiveness of agricultural interventions.

6. Nepal's agriculture sector has seen a dramatic feminization. The proportion of the labor force in the agriculture sector fell from 76 percent in 1998-99 to 74 percent in 2008, with women farmers constituting 74 percent of labor force¹, with the outmigration of menfolk to urban areas and beyond (Central Bureau of Statistics, 2011). Despite this, women continue to face exclusion with respect to ownership over assets, access to resources, in decision making processes, capacity building opportunities, and consequently, economic gains.

7. Food insecurity, poor nutrition and malnutrition continue to pose risks to Nepal's human capital accumulation and utilization. Despite the country's progress in reducing stunting in children below 5 years of age, from 57 percent in 2000 to 25 percent in 2022 (Nepal Demographic and Health Survey, 2022), Nepal continues to perform poorly on infant and young child feeding practices such as exclusive breastfeeding, maternal and child anemia, treatment of infections among children, and deficiencies in micronutrients--immediate and underlying determinants of malnutrition. Much of undernutrition occurs during the first 1000 days of life. Without appropriate food intake and care for young children and women, and with declining environmental health, damage to physical and cognitive development is largely irreversible, with future impacts on health and economic productivity. In contrast, children who escape stunting, are more likely to survive, stay in school, 33 percent more likely to escape poverty as adults and go on to earn incomes 5-50 percent higher than their stunted peers. While nutrition-based food production system is seen as a long-term strategy to advance the nutrition agenda, agriculture is faced with challenges posed by impacts of climate change already evidenced through unpredictable rainfall patterns, shorter duration or absence of winter rains, changing pest dynamics, lack of irrigation water calling for adoption of climate smart practices and inability on the part of farmers, particularly smallholders, to cope with impacts of climate change. While rural incomes are low, an estimated 13 percent of daily incomes are spent on food, the second highest for rural households amongst South Asian Countries².

8. Achieving food and nutrition security and reducing poverty are national goals of the Government of Nepal (GoN), in line with commitments to realize the Sustainable Development Goals (SDGs) and Zero Hunger Challenge. The country's agricultural development priorities are aligned with these two main goals and the Sustainable Development Agenda – particularly SDG1 and SDG2 - focusing on access to increased employment opportunities, sustainable management of natural resources, supportive infrastructures development, new avenues creation for economic growth, coping with emerging effects of climate change, social inclusion, and the development of farmer-responsive governance.

9. Nepal's agriculture sector is highly vulnerable to climate change. By the 2080s, Nepal is projected to warm by 1.2°C–4.2°C, under the highest emission scenario as compared to the baseline period 1986–2005.³ Temperature increases are projected to be higher than the global average and expected to be strongest during the winter months, especially in the high mountains. Precipitation is projected to increase gradually, especially in the east and in central areas, with increased likelihood of heavy precipitation events. More rainfall is expected in more intense periods, especially in the wetter season, leading to increasing risk of flooding and landslides. Increased rainfall will not compensate for increased and extreme high temperatures and variability, which will likely contribute to increasing water scarcity and drought risks, especially in rainfed and lowland areas, in the west and mountains, and in dry and winter seasons. Changes in precipitation patterns are likely to affect rain-fed agricultural activities, causing significant annual yield variability and higher production risks. The direct economic cost of climate vulnerability in the agriculture sector in 2020 was 1.5-2% of GDP⁴. Agriculture is

¹ World Bank 2019. Employment in agriculture. <http://data.worldbank.org/indicator/SL.AGP.EMPL.FE.ZS?locations=NP>

² Counting the Beans: The True Cost of a Plate of Food Around the World (2017). UN World Food Programme.

³ Nepal The World Bank Group and the Asian Development Bank (2021): Climate Risk Country Profile.

⁴ National Adaptation Plan, 2021



expected to experience increased stresses from high temperatures and dry periods for rainfed crops, especially in the Terai and hill areas, increased occurrence of diseases and pests of crops and livestock, the loss of arable land from flash floods and landslides, accelerated soil degradation and loss of fertility, resulting in declining crop yields with a potential to affect food security, overall production and nutrition requirements at the household level. Addressing climate change impacts in the sector is a priority to address the increasing food insecurity, human health and also reduce the pressure on the national economy as agriculture sector together forestry contributes to about one-fourth of the national GDP.

10. Nepal's Agricultural Development Strategy (ADS) and the 15th Development Plan provide the main policy framework for the sector. The ADS was endorsed by the Cabinet of Ministers in 2015 to support the GoN's vision of "A self-reliant, sustainable, competitive, and inclusive agricultural sector that drives economic growth and contributes to improved livelihoods and food and nutrition security." The ADS calls for a 4 percent growth in Agriculture GDP by 2020 and 6 percent by 2025, through four strategic pillars: (i) improving governance, with targets for credibility of policy commitment, engaging stakeholders (both from government and civil society) in the formulation, implementation, and monitoring of results on the ground; (ii) increasing productivity, by developing effective agricultural research and extension, efficient use of agricultural inputs, promoting efficient and sustainable practices and use of natural resources (land, water, soils, and forests), and increased resilience to climate change and disasters; (iii) profitable commercialization, by transforming the agricultural sector from subsistence farming towards higher levels of commercial agriculture, connected to local, national, and international markets and (iv) enhancing competitiveness, by capturing the energy, innovation and inventiveness of the private sector and cooperative sector to spur growth and development in the sector.

Relationship to CPF

11. By directly supporting improved income generation, inclusion and resilience, the proposed project is aligned with the priorities articulated in Focus Areas 2 and 3 of the Nepal Country Partnership Framework (CPF) for 2019–2024⁵. Further, the proposed project directly supports the priorities articulated in the Country Climate and Development Report (2022)⁶ by supporting (i) the Green, Inclusive and Resilient Development (GRID) approach which will include scaling up of climate smart agriculture (CSA)practices such as use of short duration varieties, system of rice intensification (SRI) in rice farming, stress tolerant varieties and breeds, minimum tillage, cover and mixed cropping, water resource conservation; and reaching the most marginalized and deprived communities in poor and earthquake affected districts, (ii) Human Capital Development in supporting the nutrition security of poor and vulnerable people, particularly pregnant and nursing women and children below 2 years of age; and (iii) Federalism in building the capacity of municipality governments in planning, implementing, and monitoring the project. The project is line with the Second Nationally Determined Contributions (2020), which recommends promoting intercropping, agroforestry, conservation tillage, and livestock and agricultural waste management, and increased access of CSA technologies to women, indigenous people, smallholder farmers, and marginalized groups. Nepal's National Adaptation Plan⁷ has identified nine priority programs, of which three are being directly addressed by the proposed project. These include: (i) agriculture and food security, (ii) forest, biodiversity, and water resources management, and (iii) gender equality, social inclusion, and livelihoods, which are being addressed by the proposed project directly or indirectly.

⁵ It will contribute directly to three CPF objectives under two focus areas: 'Strengthened institutions for public sector management and service delivery' (Objective 1.2) under the first focus area, Public Institutions, and 'Improved access to services and support for the well-being of the vulnerable groups' (Objective 3.2) and 'Increased resilience to health shocks, natural disasters, and climate change' (Objective 3.3) under the third focus area, Inclusion and Resilience.

⁶ Nepal Country Climate and Development Report, September 2022. World Bank Group, Nepal Country Office.

⁷ MoFE (2018). *Nepal's National Adaptation Plan (NAP) Process: Reflecting on lessons learned and the way forward*. Ministry of Forests and Environment (MoFE) of the Government of Nepal, the NAP Global Network, Action on Climate Today (ACT) and Practical Action Nepal.



C. Proposed Development Objective(s)

The PDO is to enhance climate resilience, improve agricultural productivity and nutrition practices of targeted smallholder farming communities in selected areas of Nepal.

Key Results (From PCN)

12. The following key results will measure the achievement towards the PDOs
 - a. Number of farmers adopting improved climate-smart agricultural technology (disaggregated by gender)
 - b. Percentage increase in crop and animal productivity by direct beneficiaries (disaggregated by food grains, vegetables, meat and milk)
 - c. Percentage increase in household income (disaggregated by farm and off-farm income)
 - d. Percentage improvement in food insecurity experience scale score by direct beneficiaries
 - e. Percentage improvement in dietary intake over baseline (disaggregated by pregnant and nursing women and children 6-24 months)

D. Concept Description

13. **The Project will be financed with GAFSP Trust Fund grant of USD 20 million** provided as an additional financing to scale up the successful interventions from the on-going FANSEP project closing June 30, 2024. Since the ongoing Project is under the safeguards policy and the Environment and Social Framework (ESF) will apply to the new financing, this scale-up is being processed as a new operation in line with operational guidelines. The PDO, project design and project components will remain the same. This Project will scale up best practices under the on-going project to eight new municipalities, and consolidate gains made under the on-going project in the districts of Dolakha, Sindhupalchok, Gorkha and Dhading in the hills, and Saptari, Siraha, Dhanusha and Mahottari in the plains. These districts selected in the on-going Project remain a priority due to (a) continued impact of post-earthquake losses, (b) climate change vulnerability ranking, (c) HDI ranking, (d) food security status, and (e) poverty status. The new municipalities have been selected based on the similar vulnerability ranking. The project will benefit 20,000 direct beneficiaries from on-going interventions and 35,000 additional direct beneficiaries in the eight new municipalities, with an estimated 55,000 direct beneficiaries benefitting from project interventions. By scaling up investments within the districts, the project aims to create a significant shift in the nature of agriculture and food security activities within these areas. Climate smart and nutrition sensitive food production practices, post-harvest support to minimize food waste and losses, and food-based interventions and awareness campaigns to improve nutrition of mothers and children below 2 years of age will be prioritized. Lessons from the on-going Project has shown that on-farm demonstrations have proven to be an effective means to disseminate new learnings and technology. Provision of irrigation helps substantially in improving productivity and resilience to water stress. Provision of improved breeds of livestock combined with agroforestry systems for on-farm availability of fodder and grasses have been well accepted by farmers. The principles of adult learning by doing, based on the demonstrated success in the on-going project, will be intensified through Farmer Field Schools (FFS), Nutrition Field Schools (NFS), Farm Business Schools (FBS) and targeted behavior change communication through Mother's Groups. The project will engage with municipalities to build technical capacities for supporting FFS, NFS and Mother's Groups in planning, implementation and monitoring of project finances for greater ownership and oversight of interventions.

14. **Project components:** The four inter-related components of the on-going project will be maintained, these being: (i) Climate and Nutrition Smart Agriculture Technology Adaptation and Dissemination, (ii) Income Generation and Diversification, (iii) Improving Nutrition Security and (iv) Project Management, Communication and monitoring and evaluation (M&E).

Component A: Climate and Nutrition Smart Agricultural Technology Adaptation and Dissemination (US\$ 7.6 million)



15. This component will focus on promotion of best practices and technologies such as climate resilient crop varieties and livestock breeds, climate-smart technology and husbandry practices in both ongoing and newly added municipalities.

16. **Sub-component A1: Technology Adaptation and Testing:** Through this sub-component, the proposed Project will support the implementation of 25 improved climate and nutrition sensitive technologies and associated practices identified collaboratively with the Nepal Agricultural Research Council (NARC) in the project municipalities. Additionally, any ready-to-rollout technologies and cultivars developed for the agro-ecological conditions of the Project target areas by NARC or the Consultative Group on International Agricultural Research (CGIAR) will be adopted by project supported groups. Technologies that enhance climate resilience of production systems and livelihoods will be prioritized.

17. **Sub-component A2: Technology Dissemination and Farmer Skill Development:** This sub-component will support: (a) 250 FFS in project municipalities, (b) provision of climate resilient and improved seeds and breeds to the FFS, (c) establishment of 8 artificial insemination units and 8 goat multiplier herds, (d) establishment of 12 community-level fodder resource centers with a plantation area of 240 ha, and (e) building of community seed banks and promotion of 12 community-based seed production groups for improved seed replacement rate. Further, through this sub-component, the project will build resilience of smallholder farming system in project areas by supporting (a) 400 irrigation schemes covering 1,200 ha include conservation of spring sheds in 400 locations to capture and store run-off water and arrest soil erosion; (b) mechanization inputs for 300 FFS and (c) adoption of climate-smart and energy-efficient technologies by producer groups (goat and crop) for on-farm production and along the value chain. The sub-component will also build the capacity of municipality governments to plan, implement, and monitor climate and nutrition smart agricultural activities/practices.

18. **Component B: Income Generation and Diversification (US\$5.7 million).** This Component will support selected Producer Groups (PGs) diversify their income-generation capacity through critical business skills, productive assets and value-added activities and market linkages. The component will support access to varieties, breeds and practices (identified during the on-going project phase) that are locally well adapted and socially accepted.

19. **Sub-component B1: Strengthening Producer Groups (PG).** The sub-component will support organization of 800 PGs comprising farmers engaged in commodities of common interest and enhancing their capacity in terms of meeting organization, group dynamics, leadership, decision making, problem solving and risk management, preparation of business plans (BPs), book keeping, agricultural seasonal planning in view of climate vulnerability and risk, including suitability screening of crops based on climate projections, potential for value addition, requirements for food safety standards, capacity for M&E; marketing and governance. 24 FBS will be established to develop complementary business skills of participating PGs alongside customized demand-based training courses.

20. **Subcomponent B2: Market Linkages through Productive Alliances⁸.** This sub-component will consolidate linkages between Producer Organizations and buyers supporting both input and output markets, including micro, small, and medium enterprises, traders, and rural financial institutions (where feasible) through the provision of financing for simple BPs. Around 700 Matching Grant schemes for target beneficiaries will be implemented to finance eligible BPs that demonstrates potential for marketing and income generation. In addition, 48 critical infrastructures such as collection centers, storage, markets, and processing and grading facilities will be established to strengthen supply chain and reduce post-harvest losses. Selection criteria for successful business plans include their potential to enhance climate resilience and mitigation through e.g., renewable energy and energy-efficient solutions.

⁸ A PA is defined as an agreement between a group of organized farmers and a buyer, for the provision of a certain good, in a specified quantity and quality.

**Component C: Improving Nutrition Security (US\$4.7 million)**

21. This component will support interventions of the on-going project for systemically addressing the underlying causes of malnutrition, through the following sub-components:

Sub-component C1: Institutional Capacity Strengthening

22. This sub-component will engage in capacity building of municipalities participating in the on-going project with a stronger focus on new municipalities supported by the proposed project to entrench, sustain and advocate for improved nutrition and climate-resilience outcomes in their communities. This sub-component will provide capacity building for political leadership and bureaucracy responsible for Agriculture and Livestock Development and Health and Nutrition at the municipalities and for established ward and local level Nutrition and Food Security Steering Committees. The sub-component will support (i) orientation on the Government's current Multi-Sector Plan for Nutrition (MSNP) II and MSNP III (pending approval of Cabinet); (ii) advocacy for prioritization of nutrition related investments in annual work plans and budgets; (iii) promotion of nutritious but often forgotten crops like local beans, buckwheat, foxtail millet, lentil, and (iv) assured delivery of health and nutrition services at outreach centers, health posts and primary health care centers with oversight from municipality government levels.

Sub-component C2: Nutrition Field School (NFS) and Home Nutrition Gardens (HNGs)

23. This sub-component will finance small grants for 400 nutrition groups with exclusive participation of women of reproductive age (preference will be given to pregnant and nursing women) for the establishment of home nutrition gardens, including water harvesting, and poultry farming, and technical inputs from nutrition field schools to improve the production and consumption of nutritious and diverse foods at the household level. These inputs will be complemented with evidence-based behavior change communication developed by the on-going project to improve maternal, infant and young child nutrition behaviors. Where feasible, nutrition gardens will also be established in schools of participating communities.

Component D: Project management, communication, and M&E (US\$2 million).

24. This Component will support monitoring and reporting of implementation progress leveraging the M&E and Project Management Information System developed by the on-going project. In addition, this component will support (a) compliance with Bank's fiduciary and safeguard requirements, (b) facilitate inter-agency coordination. (d) experience sharing amongst beneficiary groups, (d) grievance management, (e) knowledge management and learning amongst project stakeholders, and (f) day to day operations of the Project Management Unit (PMU). The manuals, strategies and guidelines produced by the on-going project for selection and award of matching grant schemes, small grants, selection and award of mechanization support and selection and construction of infrastructural activities such as collection centers, irrigation schemes, markets and processing centers will be used by the project, with amendments, as needed.

| Legal Operational Policies | Triggered? |
|--|------------|
| Projects on International Waterways OP 7.50 | No |
| Projects in Disputed Areas OP 7.60 | No |
| Summary of Screening of Environmental and Social Risks and Impacts | |



Considering that the project will support small scale activities such as improvement/rehabilitation of irrigation schemes (groundwater and/or gravity), the establishment of collection, processing, and marketing facilities, setting up of Artificial Insemination (AI) centers, and Goat Multiplier herds for Genetic improvement the E&S associated impacts are envisaged to be site-specific and reversible. The adverse environmental impacts are envisaged to be on solid waste, wastewater/effluents, air, soil hazard/degradation, increased use of pesticides/insecticides, overgrazing, water, noise, dust, and health and safety hazards. The social impacts are related to the potential exclusion of the most vulnerable and marginalized households, particularly among the poorly educated women populations residing in remote locations with binding geographical constraints.

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**APPROVAL**

| | |
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