

POLICY BRIEF

December 2023



Climate Resilience-building through Green Jobs in Mountain Villages of Nepal



INTRODUCTION

The impacts of climate change are directly intertwined with rural livelihoods in Nepal because they relate to immediate natural resources that are highly sensitive to changing weather patterns. Studies show that Nepal has experienced a higher temperature rise than the average global increase, experienced reduced snowfall in high mountains, and irregularity in summer and winter rains in the mid-hills and southern low land¹. In particular, a rising phenomenon of winter droughts has been commonplace in northern parts of the country and has impacted water, forest, and soil ecosystem services and livelihood bases². What's more, difficult terrains and geographical remoteness, limited access to basic infrastructure services such as road networks, transport systems, health facilities, and social marginalisation (with financial and food poverty and deprivation of quality education) make rural Nepal more vulnerable to climate change impacts. In addition, poor households always struggle to recover from climate-induced stresses and shocks. Given the higher scale of social, economic, and climate vulnerability and with little or no climate risk resilience-building actions, mountainous households whose livelihoods are subsistence agriculture will experience even higher impacts of climate change³.

Gender inequality plays a significant role in creating vulnerability among women⁴. Assessment of policies related to gender and climate change shows that women and marginalised groups are viewed only as vulnerable groups, and not as primary stakeholders or agents of change with knowledge and experience that can help households cope with and adapt to climate risks⁵. In Nepal, economic remoteness with limited market access for household products, combined with gender constraints, lead to a high incidence of women's poverty including poor adaptive capacity to climate change, pushing women back to remain in a vicious poverty trap.

1 National Adaptation Plan, 2021-2050. Government of Nepal.

2 Baniya, Binod, QiuHong Tang, Ximeng Xu, Gebremedhin G. Haile, and Gyan Chhipi-Shrestha. 2019. Spatial and Temporal Variation of Drought Based on Satellite Derived Vegetation Condition Index in Nepal from 1982–2015. *Sensors* 19, no. 2: 430.

3 Chalise, Sudarshan, Naranpanawa, Athula, Bandara, Jayatilleke S., and Sarker, Tapan. 2017. A general equilibrium assessment of climate change-induced loss of agricultural productivity in Nepal. *Economic Modelling*, Science Direct, Vol 62.

4 Shock Responsive Social Protection in Nepal: Building Safer and Resilient Communities. Save the Children. Policy Brief, 2021.

5 State of Gender Equality and Climate Change in Nepal, 2021. ICIMOD and UN Women.

CONTEXT OF GREEN JOBS: POLICIES AND PRACTICES IN NEPAL

Green jobs reduce the environmental impact of enterprises and economic sectors, ultimately to sustainable levels. Specifically, but not exclusively, this includes jobs that help to protect ecosystems and biodiversity; reduce energy, materials, and water consumption through high-efficiency strategies; de-carbonise the local and national economy; and minimise or altogether avoid the generation of waste and pollution⁶. Retrofitting buildings, tree nursery farming, organic farming, water mill enterprises, solar energy systems, micro and small hydro power, waste collection and recycling with decent working conditions in cooperative models or waste management with circular economy approach, sustainable eco-tourism and homestay enterprises, sustainable eco-system management including wetlands restoration, forest restoration and community-based forest management, local or home-based enterprises of wool based products (*radi/pakhi*), sustainable handicrafts enterprises, among others, are the key sectors for green jobs creation in Nepal. A study in Nepal reveals that embedding a gender perspective in green job sectors accelerates the achievement of gains⁷.

Green job initiatives may require policy formulation at different government levels, and/or the use of existing policy instruments to create appropriate incentives to promote green jobs and institutionalise the green economy⁸. In 2021, Nepal adopted the Green, Resilient, and Inclusive Development (GRID) approach to systematically address slow domestic job creation including green jobs, a high vulnerability to climate change and environmental degradation, and low rates of inclusion. Nepal's GRID approach builds on several strategic initiatives such as Nepal's Nationally Determined Contribution and its 2020 Relief, Recovery, and Resilience (3R) Plan. National Climate Change Policy, 2019, envisions a green economy by adopting the concept of low carbon emission development. Likewise, the National Adaptation Plan, 2021-50 (NAP) outlines the scope of green jobs. The final draft of the 16th Five Year Plan (to be effective from mid-July 2024 for the next five years) upholds the provision of a green economy and green jobs creation and promotion. However, implementation of policy provisions has always been a challenge in Nepal. For example, the 15th Plan - effective until mid-July 2024 - set a target of achieving an average annual economic growth rate of 9.6%; however, assessing the progress until the fiscal year 2022/23, the growth has shrunk to merely 2%⁹. Lack of policy localisation and poor implementation is a major reason behind the poor results. Further, local governments lack green jobs promotion policies and strategies and the lack of local government capacity to promote green jobs is a major challenge.



GREEN JOB PILOT-PROJECT IN HIGH MOUNTAIN COMMUNITIES OF NEPAL: GROUND EVIDENCE TO INFORM LOCAL GREEN POLICY AND PROGRAMMING

Rukum East is one of the seventy-seven districts of Nepal. The district falls in Lumbini Province and is located in the Dhaulagiri Himalayan range of Nepal. The Kham Magar ethnic population makes up the majority (51%) of the district's demography; the district is recognised for preserving indigenous Kham culture and tradition. Almost two-thirds of the area of the district is covered by the Dhorpatan Hunting Reserve - an important high-altitude ecosystem in the country. However, the district is ranked at high climate risk with low adaptive capacity¹⁰.

Subsistence farming is a mainstay of the local economy. Barley, potatoes, and corn are the major crops. Crop harvesting is entirely dependent on the amount and timeliness of the snowfall during the winter. If there is an adequate amount of snowfall (at least two feet high) in the farming land, all crops including corn will be good because the soil moisture level will remain adequate to support the crops throughout the year. Sadly, the local people's experience shows that snowfall has been decreasing every year, with negative impacts on subsistence farming and consequently on food and nutrition security¹¹. At the same time, the assessment also shows that sheep-keeping and weaving and selling traditional *radi/pakhi* (local wool carpets and blankets) offer cash income, helpful for poor households to cope during a rough year for crops. Mostly, it is women who engage in the entire process of *radi/pakhi* production. The process is labour-intensive

6 *Green Jobs in Nepal*, 2015. International Labour Organisation.

7 *Towards Green and Inclusive Prosperity – Building Green Economies that Deliver on Poverty Reduction*, 2015. UNDP.

8 *Ibid*, footnote 7

9 *16th Periodic Plan Draft: The Rising Nepal*. 15 December 2023.

10 *Climate change and disaster risk and vulnerability context of Province 5*, 2019. Oxford Policy Management.

11 *Climate Vulnerability and Adaptation Assessment of Upallor Sera and Tallo Sera villages in Rukum East*. December 2023. United Mission to Nepal.

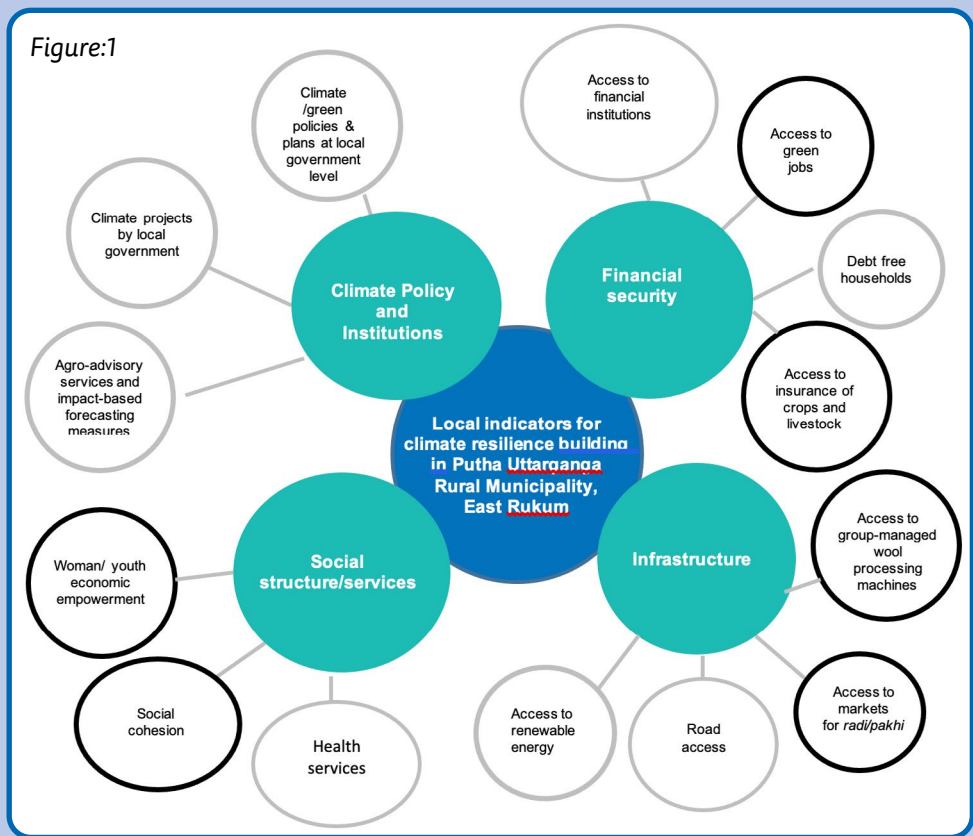
and time-consuming. Once a lucrative enterprise, it has been reduced to a meager source of household earnings due to multiple weaknesses within the product's value chain, and the traditional business model is facing a plethora of challenges. The products have been unable to keep up with the new market dynamics – and as a result, the enterprise has been at a loss. However, since *radi/pakhi* making is associated with their traditional Kham identity; the traditional enterprise keeps rolling despite its failure to bring in sufficient returns.



The value chain analysis shows that since *radi/pakhi* has been a niche product, it still retains a high demand potential if the product is diversified, the production process is mechanised to reduce the labour intensity, product brand is promoted in local and national market, and market connection for the products is improved. The income from the *radi/pakhi* household-level enterprise could be a great source of resilience against the rising impact of climate change on household food and nutrition security¹². In this context, the Green Jobs Creation Project 2022/23¹³ was designed in close consultation with stakeholders, including women and local government authorities. The project is part of Tearfund's Environmental and Economic Sustainability (EES) Innovation Lab in Asia. The key approaches of the project included technology transfer, improved sheep-keeping practices, insurance adoption, formalising household *radi/pakhi* enterprise and linking it with local government services, product diversification, and quality enhancement, use of digital technology for product marketing, and connecting the producers with new traders in major cities such as Pokhara and Kathmandu. The results have been phenomenal. With the mechanisation of the *radi/pakhi*-making processes, labour and time have been reduced by 35%. Improved weaving methods have resulted in improved design and quality. There has been a demand surge –from less than 400 pieces of *radi/pakhi* annually before the project interventions to more than 700 this year. Unlike before, the products have reached major cities of Nepal, and are likely to be exported to European markets through Pokhara city-based suppliers¹⁴. Overall, women's income has more than doubled in 50 poor households. In the face of failing crops due to agricultural drought induced by poor snowfall, women in the communities of Sera in Rukum East have been financially more productive and valued for their income contribution to the household economy. As shared by the women engaged in the *radi/pakhi* production and selling, the cash income has been a great cushion against the climate shocks impacting family farming.

More importantly, the community consultation reveals that this project has created an enabling environment for improved climate resilience capacity by contributing to six¹⁵ out of fifteen climate resilience-building indicators for four different sub-sectors that are most relevant for the local communities, as shown in Figure 1 (left).

Source: The climate resilience indicators localised for Putha Uttarganga Rural Municipality from Climate Change Related Indicators of Nepal, 2022 (Government of Nepal), in consultation with locals in Putha Uttarganga.



12 Radi/pakhi value chain analysis report. 2023. United Mission to Nepal.

13 The original title of the intervention was 'Upgrading Local Indigenous Knowledge for Transformation (UpLIFT) Project, 2022/23.

14 As discussed with businesses including R.N. Handicrafts (wholesaler) based in Pokhara in December 2023.

15 Those six indicators are access to green jobs, access to insurance of crops/livestock, access to group managed wool processing machines, access to market for radi/pakhi, social cohesion, and women/youth economic empowerment.

However, the existing *radi/pakhi*-related green enterprises are not immune to challenges. The key challenges include process difficulties that the sheep farmers face while claiming the sheep insurance if they have lost their sheep; poor quality veterinary services; inadequate incentives by local government towards promoting enterprises including *radi/pakhi* that generate green jobs; lack of locally available mechanics to repair wool processing machines, among others.



POLICY RECOMMENDATIONS

The following policy actions are recommended based on the learning and results from the implementation of the green jobs interventions executed through UMN-Tearfund-MIC Nepal partnerships in Putha Uttarganga Rural Municipality of Rukum East District.

1. The existing policy regime does not adequately support the promotion of *radi/pakhi* enterprises in Putha Uttarganga Rural Municipality. So, the rural municipality government needs to formulate a tourism policy which supports promotion and financing strategies for locally-appropriate green enterprises. High-value products such *radi/pakhi* need to be given priority with programming and funding support through their local development planning processes.
2. Sheep-keeping is in decline. One of the reasons is poor veterinary services. Putha Uttarganga Rural Municipality should strengthen the Office of Livestock Service in order to provide efficient and effective veterinary services to the sheep farmers. Also, sustainable sheep farming schemes should be prioritised in the annual planning and funded to improve sheep breeding and production to meet the local wool demands.
3. *Radi/pakhi* making consists of eleven steps which are labour and time consuming. It takes 152 hours to process five kilograms of wool and produce just two rugs. Most of the steps are performed by women. There are a few steps which, if mechanised, will significantly reduce labour and time for women and their efficiency and productivity can be increased markedly, thereby increasing their cash income. So, Putha Uttarganga Rural Municipality should plan for mechanising the wool production processes.
4. The existing insurance scheme is not practical for mobile sheep farmers. Therefore, Putha Uttarganga Rural Municipality, in collaboration with an insurance company, should establish specific and realistic criteria to streamline the claiming procedure.
5. For climate-smart sheep farming, improved sheep housing/sheds needs to be promoted. The local government needs to encourage financial institutions for soft loans to the farmers and create an enabling environment for the development partners for grant investment to establish and pilot model sheep farming projects in rangeland areas of Putha Uttarganga.
6. Short promotional videos should be developed and digital platforms used to promote the products. Traders, local government, and development partners may assist *radi/pakhi* women's groups in this.
7. Federal policies supporting green jobs need to be localised. Development partners, international, national, and NGOs as well as local civil society organisations (CBOs) have an influencing role to play in policy localisation. They need to support green jobs pilot projects to inform the local government about green jobs decisions and programming. Such initiatives will enable local governments to create green jobs as an effective strategy for climate change resilience-building targeting local youth, women, and girls.

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