



SOUTH ASIA SUBREGIONAL WORKSHOP INCLUSIVE CLEAN ENERGY TRANSITION IN BHUTAN AND NEPAL

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Session 2: Cultivating the Workforce for the Green Economy Transition and Catalyzing Local Economies

- Presentation Topic: **Optimizing Social Protection Programs for Green Economy Transition**

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- Bhutan is one of the few carbon-negative countries globally; Over **99%** of its electricity comes from hydropower.¹
- The 13th Five-Year Plan (2024–2029) prioritizes clean energy, green mobility, and nature-based tourism.²

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- **Youth unemployment** stands at **19.2%** (male: 18.9%, female: 19.6%) in the second quarter of 2024.³
- For 2023, **youth not in education, employment, or training (NEET)** is **19.7%** of the youth population.⁴
- For 2024, the **female youth NEET** is **22.6%** of the female population, and the **male youth NEET** is **16.8%** of the male population.⁴
- For 2023, the **vulnerable employment rate** is **70.2%; 81.8% among females and 62.6% among males.**⁵
 - Workers in vulnerable employment are least likely to have formal work arrangements, social protection, and safety nets to guard against economic shocks; thus, they are more likely to fall into poverty.

- Nepal has **committed to achieving net-zero carbon emissions by 2045** and has expressed plans to **meet 15% of its total energy demand with clean energy sources by 2030** (announced at the 26th Conference of the Parties (COP26) to the UN Framework Convention on Climate Change).⁶
- Nepal is **planning to increase its focus on hydropower projects along with the implementation of smart grid technologies**, both of which can modernize the power sector and reduce the **carbon footprint of fossil fuels** by enhancing the penetration of renewable energy sources and minimizing losses.⁷

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- For 2024, the **labor force participation rate is 27.6% among females and is 53.7% among males**.⁸
- The percentage of **female youth not in education, employment, or training (NEET) is 43.9%** of the female youth population; the **percentage of male NEET is 21.0%** of the male youth population.⁴
- For 2023, the **vulnerable employment rate is 78.7%; 91.2% among women and 71.5% among men**. **The vulnerable employment rate is higher for men and women in Nepal compared to the average rate in South Asia**.⁸
 - Workers in vulnerable employment are least likely to have formal work arrangements, social protection, and safety nets to guard against economic shocks; thus, they are more likely to fall into poverty.

Why is Social Protection Key in the Green Transition?

- The shift to a green economy may result in job displacements, particularly in traditional energy sectors, agriculture, and among informal workers.
- Green jobs in energy, forestry, and public works offer opportunities for youth, women, and disadvantaged groups, but access remains uneven.
- SPPs are vital for enabling just transitions by:
 - ✓ Supporting informal workers and rural livelihoods
 - ✓ Financing reskilling and community-based adaptation
 - ✓ Facilitating equitable inclusion in green growth



1. Extending social protection to informal workers

- Most of the labor force in both countries is informal or in vulnerable employment, with rates exceeding 78% in Nepal and over 70% in Bhutan.
- Many lack access to pensions, unemployment insurance, or health schemes.

2. Skilling and Transition Pathways

- **Bhutan:** The De-suung Skilling Program (DSP) Solar Project is a Green-Economy in Action because it aims to accelerate solar PV adoption, enhance energy security, and build local technical expertise in renewable energy through training.⁹ How can it scale and integrate with local job creation?
- **Nepal:** The Prime Minister Employment Program (PMEP) has provided employment to approximately 48,000 unemployed individuals across Nepal.¹⁰ It offers public works jobs, but can these be redirected to support green infrastructure and forestry?

3. Role of local governance

- Local bodies (Dzongkhags and Gewogs in Bhutan and Palikas in Nepal) play a pivotal role in identifying vulnerable populations, implementing cash-for-work programs, and managing community forests,
- Their involvement is crucial for tailoring SP to local green economy plans.

4. Climate-responsive SP systems

- Nepal's shock-responsive cash transfers (post-earthquake, floods) and crop insurance schemes show early progress.
- Bhutan's Disaster Management Act (2013) encourages contingency planning, which can be integrated with SP

5. Data and Evidence

- **Total Expenditure on Social Protection (including healthcare)**
 - **Bhutan (2022): 5.5% of GDP¹¹**
 - **Nepal (2021): 4.0% of GDP¹¹**
- **Approximately 34% of Nepal's forests are managed by more than 22,000 community forest user groups, offering potential for green jobs.¹²**

Questions to Optimize Social Protection Programs for Green Transition

- How can Bhutan's and Nepal's **flagship social protection programs** be aligned with **green transition goals**?
- What models of **financing and delivery**, especially at the local level, can make **SP programs more effective and inclusive**?
- How do we **ensure the participation of women, youth, and informal workers** in green job transitions?
- Can public works and training programs **stimulate local green economies** (e.g., solar mini-grids, afforestation, climate adaptation)?



1. Department of Energy, Ministry of Energy and Natural Resources. 2023. [Bhutan Energy Data Directory 2022](#). Thimphu.
2. Office of the Cabinet Affairs and Strategic Coordination, Royal Government of Bhutan. 2024. [Thirteenth Five Year Plan 2024-2029](#). Thimphu.
3. National Statistics Bureau. 2024. [Labor Force Survey Quarterly Report: Second Quarter](#). Thimphu.
4. World Bank Group. [Data: Share of Youth Not in Education, Employment, or Training](#) (accessed on 20 May 2025). Based on the International Labor Organization. “Labor Force Statistics Database (LFS)” ILOSTAT. Accessed January 07, 2025/
5. World Bank, World Development Indicators database. [Vulnerable Employment](#). Estimates are based on data obtained from International Labour Organization, ILOSTAT at ilostat.ilo.org/data (accessed on 20 May 2025).
6. S. Aryal et al. 2024. Evolution and Future Prospects of Hydropower Sector in Nepal: A Review. [Heliyon, Vol 10, Issue 10](#), 30 May.
7. T.N. Bhattarai et al. 2022. Applications of Smart Grid Technology in Nepal: Status, Challenges, and Opportunities. [Sustainable Research for Energy and Environment](#), Vol 30, pp. 25452-25476. (Quote in S. Aryal et al., 2024).
8. World Bank Group, Gender Data Portal. [Nepal: Featured Indicators](#) (accessed on 20 May 2025).
9. [De-Suung Skilling Programme: Building Skillset & Transforming Mindset](#).
10. Collegenp. 2024. [Progress Report on the Prime Minister’s Employment Program](#).
11. International Labour Office. 2024. [World Social Protection Report 2024-2026: Universal Social Protection for Climate Action and a Just Transition](#). Geneva.
12. A. Kutter and A. Mitchell. 2021. [A New and More Sustainable Era for Nepal’s Forests](#).



THANK YOU!

