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Multiple Wins from Indigenous Women's Craze for Eco-Enterprises in Rural Nepal

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Abbreviations

CFEs	–	community forest enterprises
IDRC	–	International Development Research Centre
NDC	–	nationally determined contribution
NGO	–	nongovernment organization
PRC	–	People’s Republic of China

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Nepal's Forest Conservation and Gender Equality Ambitions: Strong on Paper, Weak in Practice

Nepal is a highly forested country, with forests and woodlands covering approximately 45% of its land area (Government of Nepal 2015a). The country's ambitious climate plan—its nationally determined contribution (NDC)—recognizes the critical importance of forests for climate change mitigation and adaptation, and other ecosystem services (Government of Nepal 2020).

Nepal's NDC, along with its gender and forest laws, is progressive, recognizing women's rights and roles as forest stewards. The Constitution of Nepal (Government of Nepal 2015b) guarantees equal inheritance rights for women, equal property ownership and family affairs rights, and freedom from discrimination. Tax subsidies promote women-owned capital and land, while local government policies facilitate concessional loans for women's collaborative initiatives.

The Constitution affirms women's right to participate in all state bodies, mandating that at least one-third of lawmakers at the federal, state, and local government levels must be women (Government of Nepal 2015b, Article 38).

Natural resource management has been significantly devolved, with Community Forest User Groups playing a crucial role; half of the key positions within these groups must be reserved for women, and either the chairperson or secretary role must be held by a woman (MoFSC 2015; Tamang et al. 2020).

Despite these solid policy ambitions, the reality of women's access to forest resources often differs on the ground. Local conservation, restoration, and sustainable use of forests vary significantly. Women's participation tends to be largely symbolic; although they hold positions in executive bodies, women have less influence in critical decision-making. Respect for women's human rights and the presence of genuine gender-equitable leadership are still lacking.

Women encounter structural barriers to registering as forest users and exercising equal decision-making rights over community forests, as well as to establishing forest-based businesses and financing their enterprises. Limited access to credit, extension services, and social protection mechanisms exacerbates women's and their dependents' vulnerability to climate change, disasters, and shocks (GLOW n.d.).

In the rural areas of Nawalpur and Sindhupalchok, Indigenous and lower-caste women face poor recognition of their rights and experience multiple dimensions of poverty and insecurity.

Many men migrate from these areas in search of economic opportunities. While they may send some remittances home, women face increased daily economic burdens to secure food and other basic needs in their absence. Responsibilities for caring for children and the elderly fall squarely on adolescent girls and women of working age (GLOW n.d.).

Although men's absence has created more opportunities for women to participate in local governance forums, it has also added to the calls upon their scarce time.

Despite the Constitution guaranteeing equal land rights for women and men, most women do not own land in their names, they are obliged to beg permission from relatives such as in-laws to use land as collateral to access loans for business expansion. This situation often discourages women from developing their enterprises. Nevertheless, women are still at the front line of managing natural resources and are working to overcome these structural barriers to establish and run successful forest- and agriculture-based businesses.

Vision: Eco-Enterprises for a Healthy Environment and Decent Lives

In this context, Indigenous and lower-caste women in Nawalpur and Sindhupalchok districts envisioned a way to transform their lives while enhancing and conserving the natural environment.

Their vision focused on the sustainable cultivation, harvesting, and use of non-timber forest products from their local forests, maintaining ecological integrity while generating reliable income to support themselves and their families (GLOW n.d.).

Modest start-up funds and facilitation support from ForestAction Nepal and International Development Research Centre (IDRC) Canada were key to realizing this vision and initiating the eco-enterprises through a donor-supported project from October 2021 to March 2024. Once catalyzed by these elements of external support, the initiative grew deep roots in the communities and is now firmly integrated into local institutions, governance, and budgets, showing great promise for long-term institutional and financial viability.

Establishing Sustainable Production by Leveraging Women's Indigenous Knowledge

Indigenous women entrepreneurs decided to leverage their knowledge of forest ecosystems to manage forest plots sustainably and establish viable businesses based on non-timber forest products.

Specifically, they aimed to use fibers from *thakal* (*Phoenix loureiroi* Kunth) leaves and *sal* (*Shorea robusta*) plants to produce homewares on a sustainable, commercial scale (Khatri and Neupane 2024). Fresh green leaves are collected manually without harming the trees and crafted into *lapha*, a type of flat leaf plate. The leaves are stitched together with bamboo pins and pressed by electric machines to meet the required specifications (Khatri 2023). The homewares produced—bowls, plates, and baskets—are widely used in Nepal, integral to Hindu ceremonies and major life events such as birthdays, exhibitions, marriages, community feasts, funerals, and social gatherings. Additionally, they have gained popularity in the hospitality sector (Khatri 2023).

This initiative not only generates added value and a reliable income for the women but also contributes to the health of native forests, providing numerous climate and nature-positive benefits. At the end of their life cycle, the homewares are biodegradable, avoiding the use of finite fossil fuels associated with plastic alternatives. Instead of contributing to the plastic and waste problem in Nepal, these goods break down quickly and cleanly after use (Khatri 2023). Reducing plastic waste in waterways reduces flood risk, which is a major concern in Nepal's changing climate.

In addition to the green leaf tableware, the women identified various low-environmental impact uses of non-timber forest products with commercial application, such as fiber harvesting for baskets and brooms, nettle harvesting for dried powders, and rejuvenation of fallow lands into agroforestry systems where coffee is cultivated alongside other crops (Bastakoti and Paudel 2024).

In summary, the women entrepreneurs were motivated by several goals: to create businesses grounded in their local, Indigenous skills and knowledge that uphold cultural practices meaningful to them; to adopt a production system that harmonizes with the natural environment and enables sustainable forest management; to support a decent quality of work and life for participating women; and to compete in the marketplace against imported plastic goods, promoting more sustainable consumption and a cleaner countryside.

Strengthening Local Governance for Sustainable Practices

Although Nepal's forest management laws are gender-equitable on paper, the prevailing management approach is centered around timber felling and is male-dominated. Women have largely focused on collecting fruits and non-timber forest products, as well as gathering small firewood (Khatri and Neupane 2024). Even within the value chains for non-timber forest products, women's roles have historically been limited to harvesting, while higher-value and more profitable activities in the chain have typically been reserved for men.

Community Forest User Groups needed to undertake additional efforts in the rural districts to develop local by-laws that would support women entrepreneurs' activities. The women negotiated with local authorities to secure their management rights in the forests and successfully changed local by-laws to formalize the monitoring and harvesting of thakal and sal leaves (see box).

Box: Local Government's Role in Advancing Nature-Based Solutions

Two key initiatives by local government were important for strengthening forest governance and promoting sustainable practice.

Political agenda-setting and budgeting. From the outset of the sustainable forest enterprises, project leaders secured the support of Manju Tamang, the deputy mayor of Barabise Municipality in Sindhupalchok district. In line with the Local Forest Act, the deputy mayor committed to addressing gender gaps in forest governance by

- prioritizing the allocation of local government budgets and programs for women-led, forest-based enterprises;
- approving the registration of these enterprises within the municipality;
- pledging to undertake women-friendly climate change adaptation actions; and
- supporting the expansion of herb-planting and cultivation activities, which are integral to women's livelihoods in the local context.

Over 4 years, progress was made in all these areas, although some delays in collective decision-making have hindered full implementation to date.

Operational plans as a local regulatory instrument. Mohan Raj Kafle, the divisional forest officer of Nawalparasi district, approved gender- and inclusion-sensitive operational plans developed by the women forest entrepreneurs. These plans focused specifically on the collection of minor forest products, such as sal (*Shorea robusta*) leaves and thakal (*Phoenix loureiroi* Kunth) plants and leaves, from which plates, bowls, bags, and tableware are produced.

M.R. Kafle invited the entrepreneurs' group to conduct an inventory of available non-timber forest products (NTFPs) and incorporate their management and collection into an operational plan. This initiative not only addressed operational issues but also established a legal basis for women entrepreneurs to evaluate the sustainable management potential of the raw materials essential for their businesses.

For the first time, these women, facilitated by project staff, coordinated with the District Forest Office and accessed local government technical assistance to

- i. Conduct scientific forestry inventories of two species (sal and thakal) in the community forests of Namuna Women Forestry, Sankhadevi Community Forest, and Amarjyoti Community Forest.
- ii. Develop sal and thakal operational plans in addition to the existing core 5-year operational plans for the above community forestry groups.
- iii. Obtain official approval for gender-responsive NTFP operational plans, allowing them to be implemented over a 5-year period.

This marked the first development of forest operational plans in Nepal specifically motivated by women's NTFP management goals. This example is now widely recognized by Nepali forest officials and applauded in national forestry governance forums. Unfortunately, project funding ended before a concerted effort could be made to expand this model across multiple municipalities and districts and assess its wider applicability in forest governance. There is significant interest and potential to secure financing to scale up this approach.

Source: Authors' original analysis.

Developing Women's Financial Management Skills and Decent Work Conditions

The women received capacity-building support from ForestAction Nepal in financial management and marketing to help launch their businesses. They also established a women entrepreneurs' center, a physical space that serves as a safe space and "innovation hub." This hub acts as a meeting place for productive activities and peer-to-peer support among women, fostering confidence-building and collaborative learning. Here, they store materials, manage business affairs, and care for children, enabling them to balance work and family responsibilities (GLOW 2024).

It has been crucial for the women entrepreneurs to collaborate with external facilitators to bridge digital gender gaps. Rural women face unequal access to digital technologies and infrastructure, along with limited knowledge of how to effectively use mobile phones and internet technology. This challenge is exacerbated by their overall low literacy levels (GLOW 2024; GLOW n.d.b).

Even informal activities require active coordination and funding to arrange training and propel initiatives forward. In this context, the domestic nongovernment organization (NGO) has played a critical role as both a financial intermediary and facilitator (GLOW 2024).

Results

The economic outcomes of the initiative have been significant thus far. Eighteen women-led businesses have been established under the Economic Empowerment of Women Through Forest Solutions initiative. In Nawalpur district, 48 individuals are directly engaged in enterprises, while 148 are indirectly involved through the supply of raw materials and preproduction activities. In Sindhupalchok district, a total of 112 individuals are directly engaged, with 135 indirectly involved. Overall, 160 individuals are directly engaged, and 283 are indirectly engaged in 18 eco-enterprises across the two districts. This production has provided stable and reliable income to the women producers. The initiative specifically targets women aged 18 to 45, classified as young women according to government policy, and is inclusive of women living with disabilities.

Tripura Sundari municipality in Sindhupalchok district has launched an outlet to display and market the women entrepreneurs' goods at Khadichaur, a major trading point near Nepal's border with the People's Republic of China (PRC). The entrepreneurs have also arranged to market their products at an established outlet called "koseli ghar" in Kathmandu, the capital. The showcased items include bamboo baskets, brooms, thakal bags and caps, nettle powder, lapsi candies, and coffee.

Many of the women's green leaf tablewares are also sold locally, where they are in high demand for use in cultural rituals and by local food vendors. Nettle powders and herbal medicines are also sought after and can be purchased directly from the small businesses or marketed through promotional networks and channels created by local municipalities. As a result, even municipalities outside the initial project area are expressing a demand for further supplies. Local government bodies and the women entrepreneurs themselves have organized product marketing through trade exhibitions, market networking, and promotional content on YouTube. Women entrepreneurs in Nawalpur district have embraced the use of TikTok videos to market their products via smartphones.

Eighteen varieties of enterprises were created, of which 16 are entirely based on forest resources, while two are agro-forestry based and primarily grown at the farm level. These enterprises include trifala (1), broom (3), leaf plates (3), ginger and turmeric (1), thakal (1), bamboo basket and stool (1), coffee (1), plant nursey (1), lokta hand paper (1), lapsi (1), allo fiber extraction (1), nettle powder (2), and nigalo basket (1) (Baskaloti and Paudel 2024).

Research by Sharma et al. (2023) found that for households living below the national poverty line, the contribution of forest enterprises to household income is more significant than for higher-income households.

"Our results indicated that poverty reduction potential of forest resources, including community forest enterprises (CFEs), exists in Nepal. Disaggregated data revealed that the proportions of income from forests (16%) and CFEs (7%) are higher for poor households than the non-poor households, which receive 7% from forests and 2% from CFEs. Further, our data revealed that an additional 4% of households would fall into poverty if income from forests were not available to them. Despite the small

contribution of CFEs to household income, they can still be attractive for the poor, as their opportunity costs, particularly the forgone marginal productivity of labor, are low due to their limited education, skills and mobility, and a lack of alternative employment opportunities nearby” (Sharma et al. 2023).

Self-reported social outcomes include “empowerment,” as measured by women’s increased influence in household decision-making regarding expenditures, health, and children’s welfare. Each of the women entrepreneurs now has her own bank account for the first time. Women’s entrepreneurial skills have been greatly enhanced, and the project has inspired them to pursue financial and digital literacy, as evidenced by their experimentation with various IT marketing channels. Additionally, women’s involvement in forest enterprises has increased their political engagement in the community, positively impacting their negotiating power and relative status.

In terms of promoting ecological sustainability, one of the greatest achievements has been demonstrating how non-timber forest products can be sustainably harvested while maintaining the overall ecological integrity of the forest ecosystem and its surrounding managed production areas, such as plant nurseries. The initial vision for environmental protection was twofold:

- Contributing to sustainable production by relying on healthy, standing native forests—which provide many climate and nature benefits—and avoiding the use of fossil fuels, such as plastic homewares.
- Contributing to sustainable consumption—the homewares are biodegradable, reducing litter that clogs waterways, thereby enhancing resilience to climate change and improving environmental quality.

The initiative has successfully achieved these goals, and the communities involved have *also* recorded further, unanticipated environmental benefits over the first 3 years:

- Reduced forest fire incidence due to the timely collection of sal (*Shorea robusta*) leaves from the forest floor by the eco-enterprises.
- Soil conservation through the planting of bamboo, coffee, and broom grass on fallow lands as part of an integrated mosaic of conservation and production in the forest landscape.
- Prevention of further soil erosion and landslides due to the establishment of a permanent tree nursery by a women’s cooperative.

The achievement of enduring change is intrinsically linked to awareness, knowledge dissemination, and policy support for the women’s eco-enterprise approach. Important outcomes include

- Dissemination of Indigenous knowledge on sustainable forest management practices.
- A ban imposed by ward chairpersons in areas where women entrepreneurs are active, prohibiting the use of plastic plates and bowls for selling snacks, including at public events, in favor of the eco-friendly tableware.

- Formal registration of all 18 women-led eco-enterprises with local government and cottage industry offices, granting them official status that enables access to networking services, including marketing support to help grow their businesses in the future.
- Promotion and participation of some entrepreneurs as national trainers for remote municipalities, e.g., in thakal weaving.

Since forest resources are governed by the National Forest Department, significant efforts were made to organize and empower women to advocate for flexible policies that sustain their access to minor forest products. Women entrepreneurs participated in facilitated policy dialogues with government agencies. Thus, sustainability in this context involves not only market access but also continued access to forest resources, supported through the implementation of sustainable forest management practices.

Conclusions and Future Prospects

Sometimes the policy implementation gap on climate, nature, and gender equality can be significant, as seen in Nepal. In such cases, financial and knowledge intermediaries can play catalytic roles in bridging the gap.

Initiatives such as “Economic Empowerment of Women Through Forest Solutions” demonstrate that local people, particularly Indigenous women, may possess the home-grown knowledge and skills necessary for scalable, sustainable solutions.

Addressing structural barriers to entrepreneurship and leadership among Indigenous and marginalized women may be key to unlocking appropriate technological and market solutions. Empowering communities and targeted efforts are essential to inspire marginalized women’s confidence and business acumen, ensuring that institutional structures and societal attitudes fully recognize women’s rights and enable their exercise at multiple levels.

In this case, a multipronged approach was necessary to tackle structural barriers. With donor support, the NGO ForestAction Nepal provided seed funding for individual women-led enterprises and financed the construction of a business hub in the community. It supplied technical equipment and managerial training (e.g., business planning and bookkeeping) and facilitated women entrepreneurs’ networking and relations with relevant government agencies, development partners, and market actors.

Following this flurry of start-up activity and practical steps, further efforts to attract international finance encountered challenges: the women’s businesses were deemed “too small” to interest international investors looking for “scale.” This highlights a broader issue within development finance: a persistent gap exists between international investors’ interest in large-scale projects and the relatively modest needs of homegrown businesses seeking to expand markets at subnational and national levels, in harmony with ecologically sustainable production systems.

Global climate financing schemes should be established to support women-led enterprises such as these. Furthermore, there is a need for investors to act as “financial intermediaries” to effectively and fairly channel funds—whether grant-based accelerator funds or concessional finance—to local eco-enterprises. Likewise, national commercial banks often view small women-led businesses to be lacking in collateral; they should reconsider their risk perceptions and loan requirements. The adage “small is beautiful” may indeed apply to such innovative eco-enterprises.

Despite these frustrations, the 18 eco-enterprises have continued to thrive long after the official project ended, with good growth potential. Even after the project’s closure, around 80% of the groups have partnered with local government units to meet local demands for ecologically sustainable consumer products.

Through a collaborative approach, local government units (municipalities and ward offices) have extended economic support to some of the enterprises, including promoting marketing collaboration among women’s enterprises. Some municipalities have integrated women’s enterprise funds into their regular annual work plans and budgets. Furthermore, in May 2025, the Government of Nepal announced a new working strategy for the next decade, which includes a special investment policy for youth-led startups, both women and men. This opens promising avenues for local-level funding, although the strategy will take time to be fully implemented.

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