

Gender just climate solutions: Women-led ecological restoration in the Kathmandu Valley through Analog Forestry

Nepal, Asia



Nepal is renowned for its rich ecological diversity. But climate change, deforestation, biodiversity loss, desertification, and habitat degradation are major concerns in the country. The amount of barren land has increased significantly in the last decades. Climate change has exacerbated the rate of soil erosion, leading to land and water pollution, as well as the loss of soil and crop productivity. In the Kathmandu Valley, sprawl, unsustainable use of natural resources, poor solid waste management, polluting industries, and deforestation threaten the health and wellbeing of local ecosystems and communities, especially women.

BEFORE



AFTER



Photo Credit: Anu Manandhar; Prajwol Joshi

Nepal's first Analog Forest

The Women Empowerment Center (WEC), a local women's organisation from Kirtipur municipality in the Kathmandu Valley, is working to restore 1,000 square meters of degraded land. Established in 2017 with the aim of empowering local women to become independent both socially and financially, WEC has teamed up with Tewa-Women's Fund of Nepal and the International Analog Forestry Network (IAFN) to bring Analog Forestry to Nepal. Analog Forestry is a system of ecological restoration that imitates natural forest systems, making use of natural ecological succession and forest functions. As such, it contributes to climate change adaptation and mitigation, enhances biodiversity and ecological resilience, and strengthens livelihoods. Under the guidance of IAFN-trained Analog Forestry practitioners, WEC is now applying Analog Forestry techniques on the site of a former cement mine – an undulating, barren area within a local park.

WEC's work began with an assessment of the land, which revealed only 16 plant species. The topmost part of the area was mostly covered with limestones and the entire park area was filled with plastic and metal waste. An examination of the nearby natural forest helped reveal missing elements on the site and informed the design of the new Analog Forest. The women of WEC leadership, The Analog Forest plot aimed to achieve multiple interlinked goals, including increased flora and fauna biodiversity, improved soil profile and soil and water conservation, and increased aesthetic and spiritual value of the park. The design included a vegetable garden for use in demonstrating food sovereignty through Analog Forestry practices, and native and exotic species of fruits and flowers that could be sold at the nearby temple plans to generate income.

A flourishing ecosystem in the face of climate change

To implement the design, the land was cleared and levelled, dry stone walls and embankments were built to control soil erosion and enhance soil formation, and a pond was created to conserve water and harvest rainwater. Different varieties of native and exotic plant species were planted and nurtured. The selected species closely resembled native species and speeded up the ecological succession process.

In just a little over a year, the use of Analog Forestry has significantly contributed to restoring biodiversity in the park. Humus formation from the decaying of leaf litter, grasses, and bushes has started soil formation in an area where only limestone was to be found. The

use of green manure, vermicompost, and mulching has increased soil fertility, supporting plant growth. Soil conservation measures, including stone walls and soil bunds, have provided a barrier to soil loss, supporting vigorous growth of plant species. More than 100 species of plants can now be seen in the park. Macro-organisms, such as earthworms and arthropods, and faunal species are also returning. During field visits, the sounds of 13 different bird species were recorded. Nepal's premier Analog Forestry plot is already enhancing carbon sequestration, controlling soil erosion and increasing soil moisture retention capacity.

A gender-just climate solution

The success of the women-led Analog Forestry plot demonstrates the effectiveness of women's leadership and engagement in climate adaptation and mitigation, and biodiversity and ecosystem restoration. This gender-just climate solution centres women's decision-making power, and their ancestral and Indigenous knowledge. The park is now home to native medicinal species that have significant health benefits and are grown according to ancestral practices, without chemicals or pesticides. The planting and promoting of these plants, which have been used in healing for many centuries, helps ensure that this knowledge will pass to future generations.

Women-led Analog Forestry also contributes to women's enhanced food security and economic sustainability. WEC's plot includes a small vegetable garden and more than a third of the planted species are edible. In the long term, fruit and flowers growing on the plot can be sold at

the local temples, ensuring a sustainable source of income to maintain the plot. Plans for a small, natural children's park are in the works. WEC also plans to host activities such as free art competitions, plant identification and bird watching for people to connect with nature on the Analog Forestry plot. The women have already conducted informal training with different groups, including farmers, forestry practitioners and nature enthusiasts.

Opportunities to expand women-led Analog Forestry

Women-led Analog Forestry offers a gender-just solution to climate change which can be applied and adapted in many different social contexts, ecosystems and climate zones. The International Analog Forestry Network, with 22 partners worldwide, supports over 40 Analog Forestry plots in more than a dozen countries. Analog Forestry tools are highly adaptable and accessible, and the approach is community-based, hands-on, and participatory. By learning how to apply Analog Forestry design, women acquire tools to assume leadership roles in local efforts to care for the land, water and forests. Analog Forestry methodologies give women the opportunity to safeguard and apply their specific knowledge and decision-making power over their own territories. With more recognition, political support and funding, women-led Analog Forestry has the power to advance climate and gender justice worldwide.

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People plant a tree but here we are building a forest. We feel very proud to see the AF plot changing the face of Manjushree park. The soil profile has improved significantly. We have successfully increased floral biodiversity and many local fauna have returned to the plot. People curious about AF practices can learn from this model plot.

- Anu Manandhar, AF Practitioner

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A group focus on strengthening local women in income generation and livelihood resilience, this was a new area of initiative for us. Our collaboration with the local stakeholders in this restoration project has set an example for women's role and gender justice in gender just climate solutions. We are very encouraged by the quick and visible AF practices at Manjushree park.

- WEC Board Member

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For more information, visit:
gaggaalliance.org, or contact
gaggacommunication@fondocentroamericano.org

About the Global Alliance for Green and Gender Action (GAGGA)

The Global Alliance for Green and Gender Action (GAGGA) is a diverse network of women's funds, environmental justice funds, NGOs, and women-led community-based organisations that have joined forces to strengthen the nexus of women's rights, climate and environmental justice. It works at local, national, regional and international levels in Africa, Asia, the Pacific, Latin America and Europe. GAGGA's aim is to influence governments, investors, and donors to divest from fossil fuel (related) industries, defend critical ecosystems, and support inclusive, sustainable and gender-just climate solutions. It does so by strengthening and deepening connections and collaborations among women-led community-based organisations (CBOs) and movements working on women's rights, environmental and climate justice, and by pursuing women-centred lobby and advocacy (L&A) agendas.

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