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# Women-led Rural Community Renewable Energy Transition and Governance

**UN Women China Project**



# The Issue

Promoting carbon reduction in agricultural and rural areas is an important measure to implement the rural revitalization strategy and to contribute to mitigation aspects of climate action. As women make up 70 per cent of the agricultural labour force in China, promoting renewable energy utilization and low-carbon transformation of agriculture is impossible without mobilizing and empowering rural women.

While agriculture remaining the most important employment sector for women in rural areas, there has been a prolonged gender wage gap in many countries. Globally, women earn 18.4 percent less than men in wage employment in agriculture.

Adopting renewable energy technologies will not just contribute to carbon reduction in rural areas, but it will also enable increased productivity and therefore increase the income of smallholders, especially women farmers. For example, many solar energy solutions are with co-benefits in climate change mitigation and women's empowerment (See table on page 2).

# Our Response

To address these needs and opportunities, UN Women launched a project in partnership with Qinghai Rural Revitalization Bureau, entitled '**Women-led Rural Community Renewable Energy Transition and Governance**' (2023–2024). The project is designed to enhance rural women's access to and use of renewable energy in agricultural business in Qinghai Province and promote women's participation and leadership in green transition in general. Innovative renewable energy solutions will be piloted to demonstrate the co-benefits of climate change mitigation and gender equality and women's empowerment (GEWE).

The project aligns with the Outline of the 14th Five-Year Plan and 2035 Long-term Goals of Qinghai Province for National Economic and Social Development, which emphasize green rural development and comprehensive rural revitalization. The project also aligns with commitments of the Government of China to the Paris Agreement, the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and the 2030 Agenda for Sustainable Development, and the project contributes to the United Nations Sustainable Development Cooperation Framework for China (UNSDCF 2021–2025).

# Gender-Responsive Climate Action Matters

Table: examples of solar technologies with co-benefits in climate change mitigation and gender equality and women's empowerment (GEWE)

Technology	Climate benefits	GEWE benefits
<b>Solar-powered greenhouse</b>	Replaces or reduces the need for fossil-fuel energy and chemical fertilizers for achieving high-yield crop farming	Can help smallholder women farmers achieve better productivity and incomes
<b>Decentralized solar power application in pastoral livelihoods</b>	Solves lack of energy access and reduces biomass burning for satisfying pastoral people's essential needs, livestock breeding and irrigating pastoral land	Can help satisfy pastoral women's water and sanitation needs, reduce unpaid care burdens such as cooking and safe water gathering, and create better grass conditions and breeding environments for livestock
<b>Solar pumps</b>	Replaces diesel-powered pumps which are high in CO, CO <sub>2</sub> , NO <sub>x</sub> and particulate matter emissions. Emissions from diesel engines contribute to the production of ground-level ozone, which damages crops, trees and other vegetation.	Can save labour and energy costs
<b>Solar-powered drip irrigation</b>	Replaces high-pressure electric- or diesel-powered irrigation techniques, which are highly energy- and water-intensive; reduces water waste in irrigation and the need to over-consume groundwater	Can be operated by women farmers who may lack mechanical skills, cannot drive a tractor to haul water and cannot handle irrigation machinery, and it can reduce the time and labour required to fetch enough water to irrigate fields
<b>Solar-powered cooling and refrigeration systems</b>	Reduces need for fossil-fuel energy in agricultural commerce	Can help to keep produce fresh for longer and make shipping easier, as women's ability to sell produce to distant markets is disproportionately inhibited by last-mile logistical challenges and mobility constraints such as the inability to drive to the nearest cold-chain delivery service

# What Will the Project Do

The project will:

- Form **a network among local government, grassroots women's groups, non-governmental and civil society organizations** to foster learning on women's access to and use of renewable energy technologies and facilities.
- Conduct **targeted capacity development training** for rural women and their networks to increase their knowledge and capacity on rural carbon neutrality strategies, renewable energy technologies, agricultural production and business skills, and women's entrepreneurship and leadership.
- Work with **renewable energy technology enterprises and technical experts** to provide portable renewable energy solutions that are responsive to the needs of women.
- Build up **a pilot site to demonstrate renewable technologies utilization** for women-led agricultural cooperatives and women livestock breeders in the network developed by the project.
- Conduct an international policy dialogue with government representatives and stakeholders **among China, other developing countries, and developed countries** to discuss and identify strategies for responding to gender gaps in women's participation and leadership in green governance and climate action.
- **Summarize, document and disseminate best practices** on renewable energy utilization in China for women's empowerment, as well as women's leading role and contribution in the green transition of China.



*UN Women and the Qinghai Rural Revitalization Bureau jointly held serial training sessions for women in local communities and grassroots women's organizations, and the participants gave positive feedback. Photo: UN Women China/ Yanliang Wu*

# Progress Made



## Seven women-led agricultural cooperatives

(with 364 female and 238 male cooperative members) gained increased technical understanding of renewable energy technology, e-commerce and finance, and gender equality through a series of training sessions. Among them, 83 female core members conducted a field visit to Sichuan Province to learn experience from national pioneered villages.



## Three pilot sites,

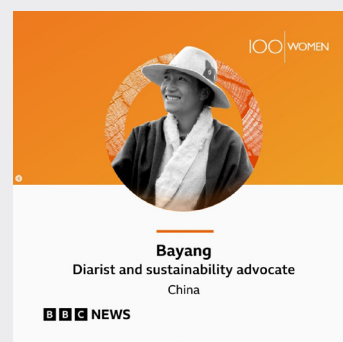
including two women-led cooperatives and one Tibetan community, are equipped with innovative solar energy solutions that benefit over 1,000 people from almost 400 households.

- A solar-powered green light system in Junhong Potato Cooperative reduces the cooperative's daily electricity consumption costs while providing female cooperative members a safer working environment.
- A solar-powered water heating system in Zhuomuxiang Agricultural Cooperative provides cows warm drinking water in long, cold winter months, thereby enhancing the business sustainability and efficiency of the cooperative.
- Solar-powered mini-fridges are being provided to 10 herder families in Ganda village on the Tibetan plateau and will save women's time from their traditional way of meat storage by hauling meat to and from the river during summertime.



## Young women's leadership and participation in climate response has been enhanced.

Sanjiangyuan Female Environmentalist Network, the first of its kind dedicated to women's leadership in environmental protection has been established under the Qinghai Snowland Great Rivers Environmental Protection Association, with 25 of women participating in the network. One of the network pioneers, Bayang, a 22-year-old Tibetan woman, was recognized in 2023 as one of the BBC 100 Women for her contribution to tackling climate change.



Recognizing the disproportionate impact of climate change on women's economic empowerment, the project results have been presented to relevant stakeholders at the twenty-eighth Conference of the Parties to the **United Nations Framework Convention on Climate Change (COP 28)**, fostering continuous discussion and new partnerships in realizing a gender just green transition.

## UN Women's Comparative Advantage

UN Women will bring its unique technical expertise on women's economic empowerment and gender equality to successfully address the project areas in the context of climate change and energy transition. Building on the previous three-year project, entitled 'Strengthening Qinghai Women Farmers' Income Security and Resilience in a Changing Climate' (2018–2021), UN Women's strong local partnerships, including with government and grassroots women's networks, and its experience, understanding and knowledge will be valuable to the implementation of this project. Through UN Women's effective convening and coordination efforts with trusted partners at all levels, impactful project results will be generated, and success stories will be amplified both nationally and internationally.

### Building on UN Women's track record in Qinghai

*From 2018 to 2021, UN Women worked closely with Qinghai Poverty Alleviation Bureau (now known as Qinghai Rural Revitalization Bureau) to implement the project entitled 'Strengthening Qinghai Women Farmers' Income Security and Resilience in a Changing Climate', which focused on climate-smart economic empowerment for rural women and increasing innovative market access.*

*More than 69,000 women and six women-led agricultural businesses in the Liupan mountainous area in Qinghai have benefited from capacity development and financing offered under the project. The range of sectors that received support included sustainable agriculture, livestock farming, ethnic arts and crafts, and e-commerce.*

*The project supported rural women's climate resilience development. This included supporting rural women to diversify their crops, shift to climate-smart farming models and develop non-agricultural livelihood skills. Relying on climate-sensitive crops for subsistence agriculture or commercial farming has become increasingly risky for rural women in Qinghai, and the project supported women to diversify their crops and boost their incomes by linking them to larger markets.*

## Partnerships

- UN Women signed a memorandum of understanding (MOU) with the Qinghai Rural Revitalization Bureau, for coordination and engagement with the provincial Department of Ecology and Environment, Energy Bureau, and Women's Federation.
- With support from UN Women, a sustainable multi-stakeholder network has been established among women-led cooperatives, the Qinghai Women's Vocational School, and the Qinghai Rural Revitalization Bureau, bringing together more than 30 stakeholders and women leaders to better support rural women's business and leadership development.
- UN Women also leverages the renewable energy technical expertise of industry, including industrial associations and renewable energy companies, as well as the technical knowledge of academic and CSO partners.

## Next steps 2024–2027

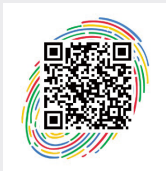
- Summarize best practices where renewable energy use benefits agricultural productivity, women's empowerment, and climate change mitigation.
- Enhance international exchange among China and other countries to identify strategies for responding to gender gaps in women's participation and leadership in green governance and climate action.
- Implement a scaled up second phase of the programme with comprehensive intervention approaches that also contribute to gender mainstreaming in national policies and global partnerships on the gender and climate nexus.

*NaSaLaMu harvests vegetables in Yushu City, Qinghai Province of China, in April 2023. Photo: Courtesy of Qinghai Snowland Greatrivers Environmental Protection Association*





*Members of the Qinghai Snowland Greatrivers Environmental Protection Association, a UN Women project partner, pose for a photo in Yushu City, Qinghai Province of China, on 21 September 2021. Photo: Courtesy of Qinghai Snowland Greatrivers Environmental Protection Association*



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