

Hundreds of millions of indigenous women and men throughout the world manage their forests and crops sustainably, and in this way contribute to the sequestration of greenhouse gases. However, maintaining control over their land and forests in the face of colonial and corporate attempts to nationalise or privatise them has been a historic struggle.

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In many areas in Asia, adivasis (a term applied to a variety of indigenous ethnic and tribal groups) and other indigenous peoples are struggling to save their natural resources from deforestation and the damaging extraction of minerals, oil and gas, as well as from further expansion of mono-crop plantations. Indigenous peoples advocate at various local, regional and international forums for maintaining their sustainable production and consumption systems.

Climate change presents an additional challenge to most indigenous peoples. It is increasing their difficulties in managing natural resources and the agricultural productivity of the lands they depend on. Many are searching for ways to effectively adapt to erratic rainfall, drought and other projected impacts of global warming, and for ways to mitigate its cause.

UNIFEM, IFAD and The Christensen Fund supported a study that examined the gendered impacts of climate change in adivasi and indigenous societies in Asia. These impacts have been exacerbated by structural

shifts in socioeconomic systems resulting from the colonial history, recent efforts at privatisation and traditional gender roles.

The study drew on available materials (both published and unpublished) on gender dimensions of climate change; my own experience in working with adivasi and indigenous peoples in India, China, and several countries in Asia; and field visits undertaken between 2006 to 2008 in India and China.

### Benefits of sustainable forest and land use

Sustainable agriculture, and harvesting or cultivating non-timber forest products, are critical aspects of many adivasi and indigenous people's livelihoods. Maintaining indigenous peoples' legal control and sustainable use of natural resources in their ancestral domains can provide significant benefits in terms of climate change adaptation and mitigation.

First, legal control and sustainable use of natural resources improves their livelihoods, thus increasing their

economic resiliency and capacity to adapt. Second, their sustainable agriculture and forest use can help provide preserve sinks that absorb greenhouse gases, reduce deforestation and also promote land rehabilitation, water conservation and increased biomass production.

However, the success of their sustainable practices rests in large part on maintaining inclusive relations among community members that bolster the strength of the entire community when faced with external pressures such as privatisation and globalisation. The sustainable management of natural resources is negatively affected when women have limited rights to manage and control land, and to participate in community governance of forests.

Income generated from forests and also power have accumulated under local elites, who have often excluded women and the poor from using the land, or owning and controlling rights to land and forests. Hence, forest-based adivasi and indigenous societies have in many cases experienced deepened gender inequalities.

For women in these societies, access to new technology and productive assets, credit and resources is often even more restricted than the already-limited access of adivasi and indigenous peoples in general, and they may experience additional inequality in the market and workplace even within their own communities.

Meanwhile, the weakening of traditional norms among adivasi and indigenous peoples, along with the



#### Changes in women's traditional roles

Indigenous people's relationships with the environment have been significantly altered by the restructuring of political economies, and this has had significant impacts on women. When forests were under local indigenous control, women played an important role in the forest-based production of goods, and enjoyed high status based on their knowledge of village economics and natural resources, and their roles in religious rituals with strong ties to the forest.

While women have certainly continued to use forests after state centralisation, they have often had to do so clandestinely and in brief visits. In addition, many forests were cut and replaced by mono-crop plantations that provided few of the resources that women previously controlled and utilised. With limited access to a much altered forest, women's power and value in the community has been reduced.

Poverty among adivasi and indigenous women, and thus their comparatively greater vulnerability to climate change, has now become embedded in the structural inequalities of the larger, external social, political and economic institutions that determine legal rights and ownership, and economic livelihood options.

growing visibility of women in the marketing of agricultural products, and in the wider public sphere, angers some men. Further, women's work in managing and processing plants and other non-timber forest products for sale in public markets has failed to increase their visibility as decision-makers within the community economy.

In the face of new challenges caused by global warming, a strengthened asset base and economic resiliency will be essential for women. Transforming the management and ownership entitlement of household resources, and building women's capacity, could significantly increase their productivity. Furthermore, secure access to and control over natural resources would make women more able to invest in adaptation and disaster risk reduction measures.

# Impacts of alternative energy and climate mitigation schemes

Adivasi and indigenous women may well have the smallest carbon footprint on earth. They have traditionally engaged in swidden farming (clearing fields and using them for a few years, then letting them recover), pastoralism, hunting and gathering, and trapping. Their produc-

tion of basic goods and services is often environmentally friendly, using renewable and/or recyclable resources.

Some adivasis in India, and other indigenous peoples of Thailand, China and Myanmar, continue to practice jhum or podu (rotational agriculture), with very limited or no use of petroleum-based fertilisers. As a result, they not only produce very few greenhouse gases, but the conserved forests in their domain and the sustainable use of agricultural lands provide the additional benefit of a healthy ecosystem that helps preserve biodiversity and provides a sink for global greenhouse gas emissions.

Indigenous peoples are increasingly affected, however, by mitigation initiatives taken by external actors – including forestry projects for carbon sequestration and the use of land for biofuels production and alternative energy installations, such as wind farms. Generally only limited efforts are made to include indigenous women in consultations about and then the implementation of these projects.

For example, adivasi communities in the Harda district in Madhya Pradesh, India, were neither notified nor aware of a forestry project intended to regenerate forests for carbon sequestration and storage. Women, and in some cases children, were employed on a seasonal basis to plant seeds in the forest, but were not informed of their role in the larger carbon storage project.

More disturbing for indigenous peoples is the fact that some mitigation projects, including some that secure forests or lands for carbon sinks and renewable energy projects, have been established on indigenous peoples' lands through deception, and without securing the free, prior and informed consent of the indigenous peoples.

## Women's engagement with alternative energy companies

In some instances, adivasi women have become actively engaged with projects intended to introduce cleaner energy sources on their land and, depending on the circumstances, have either fought against or collaborated with them. For example, in the state of Maharashtra in India, adivasi women emerged as leaders to prevent the use of their ancestral lands and forests for wind energy farms.

However, adivasi women have also collaborated with Suzlon, the wind energy corporation, to facilitate the company's corporate social responsibility (CSR) policies, with some of them employed in the company's local team. This collaboration is an attempt by Suzlon to understand the ethical basis of land transactions between adivasis and corporate agents and, in consultation with adivasi women and men, introduce remedial measures for any social, economic or ecological damage resulting from the renewable energy generation. The women have asked Suzlon to provide electricity and drinking water to households located within an area stretching 2-3 km around the wind farm, and to preserve their access to grazing land.

The women recommended that these assets be allocated to women through their self-help collectives, and that all future transactions and consultations be conducted with women, since 'men drank away all the

money gotten from the sale of land to Suzlon. When women get money, it is used for household needs, but when men get money it is used in drinking'.

Another recommendation was that Suzlon should provide bicycles, as part of the company's social responsibility strategy, to girls enrolled in middle or high school, as an enabling strategy for the higher education of girls.

A more universal recommendation, to benefit all members of indigenous societies equally, is for regulatory payments to be made to the communities for their provision of environmental services, including carbon sequestration through avoided deforestation and the frequently under-valued externalities of watershed and biodiversity protection. This would require assurances that funds are distributed to women and men equitably.

### Indigenous women's stated priorities for reducing their vulnerability to climate change:

- Women's unmediated ownership and control rights to land, credit, housing and livestock (i.e. not through the household or its head);
- Equal participation of women in community affairs, in management of 'the commons' and in decision-making related to developing livelihoods and obtaining financing for adaptation strategies;
- Access to markets and marketing knowledge to enhance trade in their agricultural produce and non-timber forest products and to avoid being cheated and exploited by outside traders;
- Capacity-building and training in alternative livelihoods;
- South-South sharing of information on how women and men in other areas are managing their livelihoods and adapting to environmental stressors;
- Access to affordable and collateral-free credit;
- Crop diversification, with the introduction of flood and drought resistant varieties;
- Extension information on sustainable use of manure, pesticides and irrigation;
- Flood protection shelters to store their assets, seeds, fodder and food;
- Easier access to healthcare services, doctors, pharmacists and veterinarians.

For the complete study, go to www.unifem.org/attachments/products/adivasi\_women\_engaging\_with\_climate\_change\_1.pdf



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