

## From banana fibre extraction to basket weaving – green entrepreneurship in India

By leveraging local resources, traditional knowledge and innovative practices, rural entrepreneurs cannot only create sustainable livelihoods, but also help solve pressing environmental problems including climate change issues – provided that they can rely on appropriate government support. Our author takes a look at various such activities in rural India.

By Athar Parvaiz

From growing solid and liquid waste pollution to depleting water resources, the environmental challenges for India are pressing. With its vast rural landscape, the country is at the forefront of facing the severe impacts of climate change. India ranked 176<sup>th</sup> among 180 countries, above Pakistan, Vietnam, Laos and Myanmar only, in the overall 2024 Environment Performance Index, released on the 5<sup>th</sup> June by the Yale Center for Environmental Law and Policy and the Columbia Center for International Earth Science Information Network, both in the USA. This is a slight improvement on last year's EPI, which saw India at the bottom. Regarding the climate change impacts and mitigation, the new report said that India would require an additional 160 billion US dollars per year in climate change mitigation investments to achieve its emissions reduction goals.

According to a report published by “Nature” on December 13<sup>th</sup> 2023 on India's vulnerability to climate change, part of the problem is that the country is positioned between the melting Himalayas and three rapidly warming bodies of water. The Arabian Sea, says the report, warmed by 2°C from 1982 to 2019,

pumping moisture into northwest India. “But the mountains squeeze the moisture from these damp winds as if they were a sponge, dumping rain and causing floods and landslides,” it notes. Amidst these challenges, rural entrepreneurship is emerging as a vital force in addressing and mitigating environmental issues. By leveraging local resources, traditional knowledge and innovative practices, rural entrepreneurs are not only creating sustainable livelihoods but also contributing to the broader fight against climate change.

### Fighting soil degradation and plastic pollution

For example, farmers in parts of the north Indian region of Jammu & Kashmir had never thought that flower cultivation could make them entrepreneurs until it was introduced in the region a few years back. But now, there are hundreds of farmers who deal in flowers and earn decent amounts of money besides providing livelihoods to thousands of people and even transforming degraded land into cultivable land. One such entrepreneur is Rubeena Tabasum, an agri-entrepreneur in the region's

Budgam district. She turned barren and degraded land into an enterprise besides developing it as an environmental asset. “All this land – around 80 acres – was barren. But, ever since I started growing lavender here, it has created livelihoods in our area for hundreds,” says Tabasum, who has also received awards from governmental and non-governmental organisations in recent years. Her success story was partly possible because of the Jammu & Kashmir Entrepreneurship Development Institute (JKEDI), which initially provided financial assistance to her to develop her agribusiness. “We work with young people to develop environmentally sustainable and inclusive businesses – and we provide all sorts of guidance to them for sustaining their businesses,” says Rajinder Kumar, director of JKEDI. According to him, one of the main challenges facing the institute is that many people are not able to carry forward their businesses successfully. “But the new Start-up Policy 2024–27 rolled out this year by the government is going to be very helpful in attracting and retaining young people in entrepreneurship”, Kumar notes, adding that this new policy has several good features, such as seed funding, mentorship, assistance to early markets, infrastructure devel-



Wicker basket craftsmen preparing material for basket-making in Shallabugh, Kashmir.

opment, networking, exposure visits for start-up founders, annual start-up awards, periodic evaluation and a feedback mechanism.

If implemented successfully, the new scheme can help skilled people such as those at Shalabugh village in Kashmir's Ganderbal district to take their businesses to the next level. For example, Abdul Aziz Rather and his fellow residents in Shalabugh are known for doing one job perfectly – they make dry-fruit baskets (locally known as *methaie toeker*), a must at engagement and wedding ceremonies in the region. Plastic alternatives have not permeated here. “Yes, it is surprising for us as well. Thank God, our business has not been affected by plastic,” Rather declares. “Otherwise, plastic has replaced so many things.” In his late sixties, Rather is known as someone whose innovations might be one reason why *methaie toeker* defeated plastic while many other local inventions made of wicker have lost their markets. “A few years ago, he introduced coloured stripes in *methaie toeker*, which added to its beauty. It has really worked. There is a lot of demand for it,” says Rather's daughter-in-law Tasleema.

Skilled men and women of villages in Ganderbal say that they can help rid the region of plastic entirely by making cheaper baskets which people can use to carry things such as groceries and other stuff from the market if they can get local and government support. Plastic pollution is a huge problem in the Kashmir region and elsewhere in India. The country uses 14 million tonnes of plastic annually, but lacks an organised system for managing this plastic waste, leading to widespread littering. If India's artisanal networks get proper support and encouragement, the sustainability practices they have been adopting will not only benefit society, but will also positively impact the environment.

Agroforestry, the practice of integrating trees and shrubs into agricultural lands, is another area which is gaining momentum among rural entrepreneurs. In almost all the states of India, including Karnataka, Uttar Pradesh, Uttarakhand, Jammu & Kashmir, Himachal Pradesh and Punjab, farmers are increasingly adopting agroforestry as a way to diversify their income and enhance soil fertility. By planting trees alongside crops, they are sequestering carbon, improving biodiversity and ensuring sustainable land use. According to a report prepared in May 2024 by India's Central Agroforestry Research Institute, besides restoring ecosystems, hardworking farmers in different Indian states have undergone exemplary agroforestry-

ry-led livelihood transformation. One example the report refers to is the efforts of 34-year-old Satyam Singh, a farmer from the village of Umra-Sultanpur in the northern Indian state of Uttar Pradesh, who planted teak trees on the boundary side of his paddy and wheat farm a few years back. Presently, he is earning an annual profit of around 1.5 lakh rupees (1,280 US dollars) from selling of timber of these trees. Similarly, 45-year-old Jagjit Singh of Sangatpura-Rupnagar in the northern state of Punjab earns over half a million rupees annually from the timber produced by his poplar trees on his farm of nine acres.

Some young people even generate wealth from waste, thereby generating livelihoods and providing solutions to environmental problems. In 2021, Jagat Kalyan, Satyam Kumar and Nitish Verma of Vaishali-Bihar declined corporate jobs to start a banana fibre extraction unit for which the raw material used is from banana stem waste or pseudo-stem waste. This zero-waste and eco-friendly start-up “Taruwar Agro” now sells fibres in India, Japan and Europe and also makes vermicompost (from the pulp removed from the fibre), while the liquid generated in the process is sold as organic fertiliser. These fibres are one-and-a-half times stronger than jute and are used to make fabrics, ropes, fishing nets, mats, paper sheets, packaging materials and utilitarian items.

### The challenge of scaling

However, while rural entrepreneurship holds immense potential in addressing environmental challenges, scaling these initiatives remains a significant hurdle. There is no denying that significant improvement has been achieved by the Federal and State governments in India in creating avenues for rural livelihoods and a business environment in rural India. For example, creating extensive road networks, access to banking facilities and digital infrastructure has witnessed considerable progress. Yet, access to finance, markets and technology needs a lot more improvement for rural enterprises to flourish. Prime Minister Narendra Modi's favourite “Make in India” campaign, government schemes like the Pradhan Mantri Mudra Yojana (PMMY) and the Agriculture Infrastructure Fund, which offer low-interest loans to Indian farmers and farmer producer organisations (FPOs) such as dairy and fisheries cooperatives, are crucial in providing the necessary support, along with initiatives by NGOs and private sector players. This assumes significance as dealing with the country's growing environmental problems is only possible by



A farmer who has planted teak trees on the bunds of his rice field.

Photo: Charlie Pye-Smith, World Agroforestry

prioritising sustainable practices in rural India where the majority of the people live.

For rural entrepreneurship to truly transform India's environmental landscape, it requires sustained support, recognition and the fostering of an ecosystem that values both innovation and sustainability. As we look to the future, it is clear that the solutions to some of the country's most pressing environmental challenges may very well come from the heart of rural India.

At global level, India is at the forefront of driving action on climate change. Its pledge to reach net-zero emissions by 2070 was one of the most important announcements at COP 26 and the country has shown serious and continuous commitment to this pledge. It would make sense for the country's leadership to adopt the same approach at home and encourage entrepreneurs in rural India to develop environment-friendly businesses.

**Athar Parvaiz** is a freelance journalist based in Srinagar/Kashmir, India.

**Contact:** atharparvaiz.ami@gmail.com