

# A living gene bank

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[Meet this tribal farmer who grows and preserves 52 native rice varieties](#)

Cheruvayal Raman with young visitors at his paddy field in Kammana, Kerala

The clouds are about to burst again after an early morning rain, and the mud road leading to Cheruvayal Raman's home is slippery. "Ramettan is in the farm," says his wife, who emerges from the 150-year-old thatched house with dark interiors and shows the way to the paddy field through the backyard. The sexagenarian tribal farmer, known as a "living paddy gene bank", is tending to the freshly-planted saplings in his three-acre land that resembles a sprawling green carpet. Two boys studying in Class 6 along with their teacher in a nearby government school are asking Raman about the paddy varieties in the field nestled amid the Western Ghats in Kerala's Wayanad district. They are among the hundreds who come to take lessons in preservation of native paddy varieties and traditional farming methods from Thalakkara Cheriya Raman, aka Cheruvayal Raman or simply Ramettan, at Kammana in Wayanad's Mananthavady taluk. Raman grows 52 varieties of rice in his three-acre field every year. "It is a non-profit initiative. I cultivate these only to preserve them and give their seeds to anybody who is interested. And I don't give more than 2-3 kg," says Raman, who claims to have supplied the seeds of 30 traditional varieties to the Dr K. Ramiah Gene Bank at Tamil Nadu Agricultural University in Coimbatore, named after the legendary breeder and founder-director of the Central Rice Research Institute, Cuttack. "Gene banks are fine, but the only way to really preserve native varieties is to grow them," points out this farmer from the Kurichiya tribal community that mainly inhabits Wayanad and Kannur districts of northern Kerala. Raman sows the seeds in individually marked plots demarcated for each variety. The grains from these are handed over as seeds ("not more than 2-3 kg each") to interested farmers. The only condition he lays down is that they give back the same quantity as seed to him after harvesting their crop. The varieties preserved by him include 'Gandhakashala' (an aromatic rice used in traditional biriyani preparations) and 'Thondi' (a red bold grain paddy, also native to Wayanad). The paddy yields per acre from these tall indigenous varieties range between about 7 quintals for 'Gandhakashala' and 18 quintals for 'Thondi', with roughly five months seed-to-grain crop duration. While these are low compared to the 25-30 quintals average for the modern dwarf high-yielding varieties (HYV) and hybrids, the traditional cultivars, being adapted to local conditions over several generations, are far more pest and disease resistant. Besides, their grains are considered superior in terms of taste, nutritional value and cooking properties. "HYVs and hybrids give a bounty of harvest using chemical fertilisers and pesticides. But that is akin to getting drunk or smoking up. We feel very excited after having them first, but once their effects subside, they leave us drained out. Moreover, they produce harmful side effects. Chemicals, likewise, double the yields at the start and, then, destroy our soil and environment. Farming native seeds using traditional methods and organic fertilisers is what will sustain the earth and the lives within. We don't destroy anything," declares Raman.

Cheruvayal Raman's 150-year-old house. Yamini Nair Raman, in 2016, received the Genome Saviour Award instituted by the Protection of Plant Varieties and Farmers' Rights Authority under the Union Agriculture Ministry. In 2018, he was also invited to speak at a four-day symposium in Brazil on challenges relating to indigenous people and sustainable use of biodiversity. It was organised by the Federal University of Parà and the Museum Paraense Emilio Goeldi, along with the International Society of Ethnobiology. But honours don't seem to matter much for him. "I got Rs 1 lakh as Genome Saviour Award, much of which got used up during my trip up and down Delhi. Instead of just giving awards, the government should help farmers continue with their occupation," he remarks. According to Raman, only farmers, not the government or industry, can help conserve the environment. "The agriculture sector is reeling under crisis. If farmers don't farm, who will take care of the environment? Why cannot the government pay a salary to farmers, so that they can pursue their occupation without bothering too much about profit or loss? The government can always question them if they take salary and still don't do a good job," he suggests, adding that farmers cultivating indigenous varieties without using any chemicals should be entitled to special grants for their efforts at environmental preservation. Raman has two sons and two daughters; none of them are into farming. "I was offered a government job as a hospital warden, but decided to take up agriculture only out of my interest in conserving these native varieties. My income is primarily from what well-wishers and people come here to learn give me. Besides, I grow enough rice and vegetables to feed my family and do all the work on my own without employing any labourers," he states. Raman had, initially in 1978, experimented with chemical-based farming. "I gave it up after noticing that all the fish, insects, earthworms, frogs and reptiles in my stretch of land had died. I just couldn't do that anymore. I also discovered that the scientists have to keep breeding new HYVs/hybrids, as their yields are not sustainable and they develop susceptibility to pests and diseases. This is unlike our traditional varieties that have been grown for decades or even centuries," he notes. Raman wants the government to study the "physical and psychological changes" taking place in human beings from consumption of food produced through modern breeding and chemical-based agriculture: "Crimes are increasing. People are depressed and their behaviour is changing. I feel it's all due to the food we eat and requires a detailed study". For Raman, the ultimate reward isn't financial, but the fact that "people from huts to palaces are coming to me to learn about my work". The government, he feels, should be obliged to "give to future generations". There should be a law to preserve "all heritage villages and things" with proper fund allocations. "Look at my house. It is 150 years old, but it has suffered damage in this rainy season. Should I be the one responsible for its upkeep?," he signs off. First published by the Indian Express under the title Conservation agriculture: A Living Gene Bank on 14 Nov. 2019