



## Please Support IDRF's Climate Initiatives

*(Select Designation 'Climate Initiatives')*

### **IDRF plans several "green projects" in India, Nepal, and Sri Lanka to address the climate crisis**

IDRF is pleased to announce the continuation of our successful climate initiative by funding green projects in India, Nepal, and Sri Lanka aimed at reducing 100,000 tons of carbon dioxide equivalent. IDRF is collaborating with NGOs to work on grassroots projects in biogas, reforestation, regenerative agriculture, and rural solar installations. These projects are spearheaded by Dr. Emmanuel D'Silva, an agriculture, and environment specialist and World Bank retiree. Dr. D'Silva initiated a pilot biogas and tree-planting project in Chhattisgarh state, which is showing encouraging results. With your support and commitment to mitigating climate change, IDRF will expand these programs further (details below).

### **Combining Biogas and Tree Planting in Chhattisgarh**

IDRF's partner, Samerth Charitable Trust, works with vulnerable communities in Gujarat and Chhattisgarh in the fields of water management, education, and livelihood and has now spread its focus to rural biogas and tree planting. The organization is headed by the dynamic Ms. Gazala Paul who has won several national awards for her pioneering work.

Samerth Trust, with financial support from IDRF and technical advice from Dr. Emmanuel D'Silva, set up five family-size biogas units of 2 cubic meters each in the villages of *Penditrai* and *Atariya* in Chhattisgarh. These digesters were targeted at rural women and their families with three to five animals and who used firewood or cow dung cakes as cooking fuel. By providing a cleaner fuel alternative, women's time collecting firewood and cooking was saved, and indoor pollution from smoke and soot was eliminated. Indoor pollution in India from using biomass fuel kills annually 1.3 million, most of them women and children. The biogas generated meets most of the family needs and recycles animal waste. The biogas technology is sourced from Mexico and fabricated in India.

The pilot project has generated a lot of local interest with women from neighboring villages clamoring for inclusion. HDFC Bank, a major commercial bank, has indicated an interest in financing additional units in the areas of its operation. The state government of Chhattisgarh has taken note of this initiative and has offered to help, as the project dovetails '*Narwa Garwa Ghurwa Padi*', the flagship rural program of the state.



*Panchavati, a biogas beneficiary from Penditrai with her chulha that uses firewood (right). Her neighbor likewise previously cooked with firewood, but now has a new biogas alternative (below right). Both women say their lives changed dramatically with the new technology.*



Below: A plantation drive in Kabirdham district, Chattisgarh by Samerth Charitable Trust resulted in 10,000 saplings being planted in 31 villages in 2022.



Widespread use of firewood has denuded local forests. Dr. D'Silva says *"biogas and tree-planting are two sides of the same coin. Biogas from animal waste eliminates the need to cut trees for firewood and planting trees helps to replenish the forest resource."* As part of the biogas pilot, some 10,000 saplings were planted in 31 villages in Chattisgarh. Samerth staff mobilized women's groups, panchayat leaders, and other resources to plant trees during the rainy season.

### **Scaling up and Replicating the Project in India and Sri Lanka**

Discussions are underway with Samerth to expand the biogas pilot to include 500 families over three years in Chhattisgarh. This will create a sufficient base for a circular economy that will include:

- (a) a business in enriched slurry (a bi-product of biogas) for agriculture,
- (b) carbon credits for methane reduction,
- (c) nurseries for horticulture, and
- (d) marketing of organic foods and fertilizer.

Discussions are continuing for securing carbon credits for this project and are expected to be 15,000 tons of carbon dioxide equivalent over ten years. Additionally, tree planting will be a complementary activity in villages where the biogas project is taken up. Both activities will be scaled up in 2023 in Chhattisgarh, Gujarat, and Maharashtra in India and possibly expanded to Sri Lanka.

Biogas installations in select *gaushalas* (cowsheds) are also under consideration. A technical feasibility study has already been completed in Vrindavan, district Mathura in Uttar Pradesh.

To move forward on this initiative, we seek your support and generous contributions to make these ground-breaking projects a reality.