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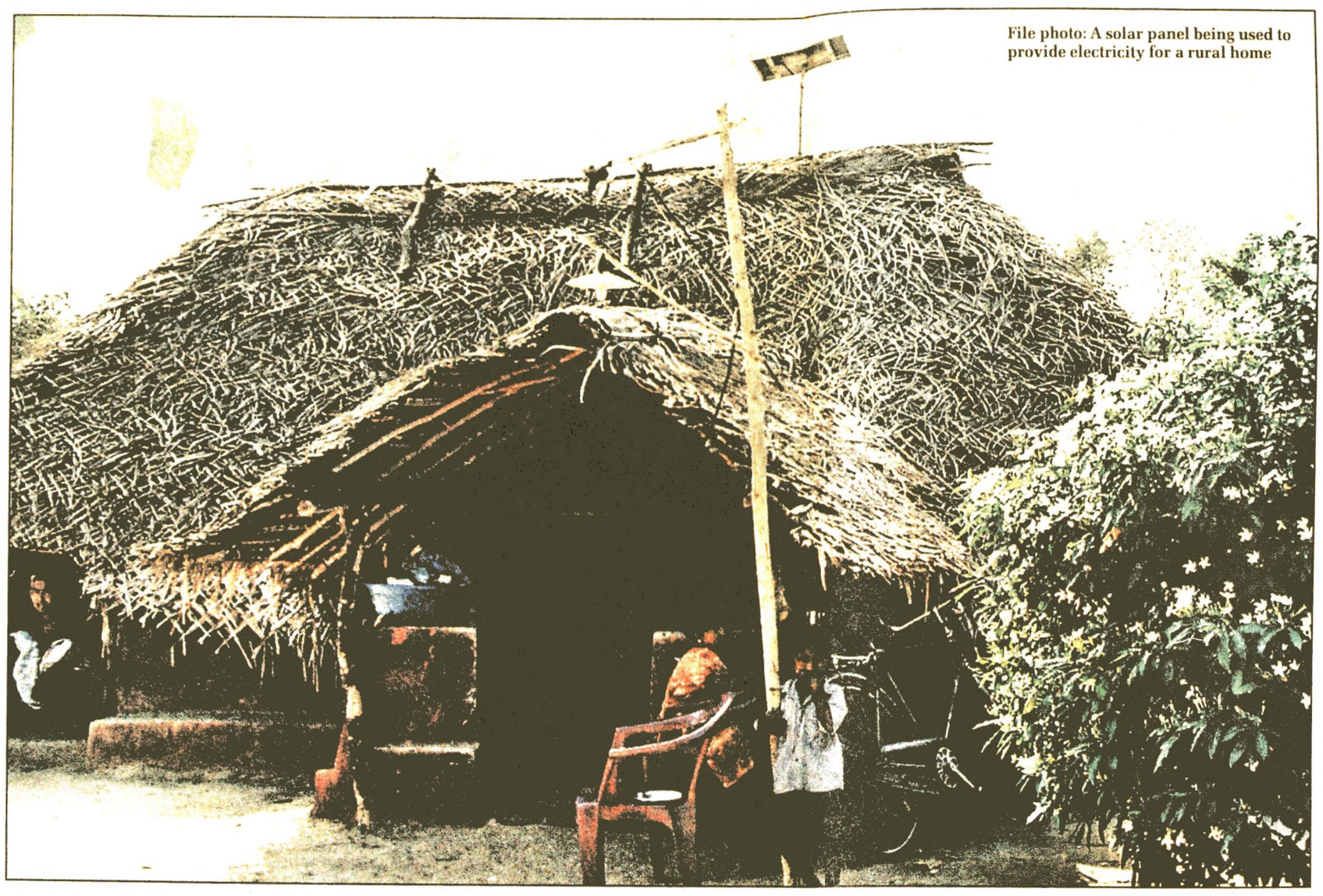
Sri Lanka - renewable energy island?

By Jagdish Hathiramani

If the thought of this nation one day becoming universally known as the "Renewable Energy Island" is far fetched, then stand in line. However, one Sri Lankan living abroad thinks differently. In fact, he has made it his life's mission to convince non-believers that the nation's dependency on fossil fuels, particularly foreign oil, must end now -- to be instead substituted with renewable options which are much greener and therefore much safer. This Sri Lankan is Prof. I.M. Dharmadasa, an academic and researcher who has worked on solar energy conversion for over 30 years.

A University of Peradeniya graduate and a former BP Solar researcher, Prof Dharmadasa currently teaches at UK's Sheffield Hallam University, and has to date experienced some significant success with a concept he is promoting locally called the 'Solar Village' programme. This project is powered by the idea that Sri Lanka has a virtually endless resource in terms of sunshine, or as he notes: "Sri Lanka has done well with solar energy over the past two decades. This is due to contributions from many solar energy believers. There are now 15 solar energy companies operating in Sri Lanka creating employment for young people. In recent European solar energy conferences, Sri Lanka has been identified as the 'Hot Spot of Solar Energy Applications'". This abundant available solar power allows, once the right infrastructure is put into place, an almost perpetual power source to meet the needs of, as he refers to it, "a cluster of remote villages where no modern facilities are available and solar power is provided to supply water and power to uplift their standard of living."



File photo: A solar panel being used to provide electricity for a rural home

The project, which evolved from Prof. Dharmadasa's work with five local universities, was initially aimed at building knowledge and experience in solar energy research in Sri Lankan universities and promoting renewable energy applications in the country. According to Prof. Dharmadasa, this eventually led to the "first solar power project under the Solar Village programme completed at Kaduruwewa village in the Kurunegala District. Here the water supply scheme to the village was provided by using solar pumps replacing a diesel pump. The villagers have formed a society to operate the scheme and they are now saving at least Rs 100,000 per annum on diesel costs. This enables them to use their money in providing better education for their children and also to uplift their living standards".

In fact, the project works mainly because the "whole community is directed to work together, to grow more trees around the area, to keep bees for honey production, use organic agriculture methods, etc. to improve the quality of environment,", says Prof. Dharmadasa, adding that it allows for the accelerated development of the community further complemented by the newly lowered cost of living attributable to solar energy.

"Another key feature of this Solar Village is that one of the local universities adopts this cluster of villages to guide the development of that society," explains Prof. Dharmadasa. Elaborating, he recalls that "the first pilot project (was) adopted by team led by Dr. Krishan Deheragoda at the Dept. of Geography, University of Sri Jayawardenepura (USJ). The Geography special students (carried) out their final year survey in this village cluster feeding new ideas for development". He adds: "Imagine the impact of fresh ideas from enthusiastic university dons and students for rural communities and the use of a younger generation to spread out these new ideas round the country for replicating these new projects."

This communal development onus has led to a number of almost immediate improvements for villagers: "Tree plantation, Honey production, Brick making, Vegetable farming in dry areas, Development of cottage businesses, scholarships and micro-finance schemes using saved funds within the community due to use of renewable energy sources. The development of the village temple, village school and the environment through Sramadana activities are organised and encouraged," he comments, noting that all projects, are completed due to villagers realising their self worth and working together towards common goals.

Meanwhile, Prof. Dharmadasa also believes that the "concept can be applied anywhere in the country". However, the "individual projects within the community will vary according to the local requirements and available natural resources", he cautions, adding that "this is also an excellent opportunity for educating community working in schools and universities to contribute to develop their own community. This culture needs to be developed in order to help needy people, establish peace and therefore reduce poverty from the society."

He has also advocated repeatedly the 'Solar Village' idea both here and abroad with generally positive results: "During my last visit to Sri Lanka, both myself and Dr. Deheragoda had a very productive discussion with our Environment Minister, Champika Ranawake... (In the meantime) Nigeria has already recognised the 'Solar Village' as a very suitable social development project for their country. Africa-Aid charity and universities in Nigeria are working with me at present to introduce this concept. They have already arranged four university lecturers to join my research group in Sheffield for training at PhD level for both R&D and solar energy application projects. This project satisfies three millennium goals, namely; clean water, clean environment and reduction of poverty".

Considering the success of the 'Solar Village' concept, what lessons can one draw from this model of communal reliance? Prof. Dharmadasa suggests "people use energy efficiently without wasting and to move rapidly towards renewables enabling (reduced) carbon dioxide emissions and also grow more trees everywhere possible to reabsorb carbon dioxide from the atmosphere".

His final thoughts are most sobering of all: "Observe the Jaffna peninsula very carefully; it is slowly becoming a desert. When people fight with each other, human-kind forgets the environment and it is bad news for vegetation. The desertification will accelerate creating misery to people who live in these areas. All Sri Lankans should work to establish long lasting peace in the country, and replicate 'Solar Villages' in every corner to liberate those innocent people who are trapped in poverty."