

## Family Farming and DESI Power's EmPower Partnership Program



### Summary

When "Welfoederlisten Schweiz", a Swiss NGO working for promoting the goals of United Nations learnt about the EmPower Partnership Program of DESI Power in villages in Araria district, they recognized its potential synergy with the activities being promoted under UN's "2014: International Year of Family Farming" to support sustainable food production by small farmers and rural households in villages around the world. The following report describes how DESI Power's model of local self-reliance through decentralised electricity supply and local job creation (which already includes energy plantations with inter-cropping) can be extended to improve the income of small farmers and landless labourers through increased food production in a sustainable manner.

World Federalists jointly with other Swiss groups are planning to start a new Swiss cooperative called "Genossenschaft Fair Partnership" to provide financial and technical support to "Family Farming" producer groups, beginning with DESI Power's program in Araria and continuing with similar projects in other locations and countries.

### The Background

There has been an enormous all round improvement in India since it became independent in 1947: even the poorest are better off now than their parents were 30 years ago. The rich are richer and there are many more of them. The middle classes have never had it so good. Simultaneously, however, the number of deprived people has also continued to grow and they are the ones who have to suffer from the lack of rural development and amenities essential in a fair and democratic society: regular jobs and income; adequate nutrition; clean cooking fuel and drinking water; health and hygienic facilities; electricity; lighting; education and skills training. Notwithstanding its success stories in other sectors, such significant failures make it difficult to remain optimistic about democracy, social stability and peace in India unless the problems of rural India are solved soon.

The top-down development path and the more recent neo-liberal political-economic regime have clearly been unable to provide solutions and a fairer and more sustainable national development model is essential. The new development paradigm has to include a bottom-up decentralised path combining the Gandhian vision of self-reliant villages using modern appropriate technologies and a political-economic system of village level democracy and governance à la Switzerland.

Farming will continue to be the backbone of Indian society (especially in the highly populous and fertile northern region) for a long time to come. Land reforms, essential to take care of the majority of villagers who are small land holders and/or landless, will have to be introduced along with long term investments and education, training and skills building. Promoting renewable energy systems integrated with modern and ecological "Family Farming" can be very useful for enhancing sustainable food production and ensuring regular income and jobs for the bottom of the pyramid. An example of such a model is being practiced in a number of villages in Araria district in Bihar.



### DESI Power's EmPower Partnership Program

Decentralised generation and micro-grid:

Biomass gasification, solar PV and biogas generate electricity at a lower cost with local resources while generating income and replacing diesel which creates pollution and CO<sub>2</sub> emission.



### Pumping:

Normally, diesel engines currently provide small amounts of commercial energy being used in villages and supply most of the irrigation pumps in villages.



Under DESI Power EmPower Program, irrigation water is supplied with electricity from local micro-grid and mobile solar and battery pumps:



### Cooking:

Inefficient and unhealthy cooking is currently the norm in most of villages in India. Traditional “chullahs” use cow-dung cakes and agro-residues (which waste energy and bio-fertiliser and create pollution and health hazard with smoke, soot and poisonous carbon monoxide).



Energy efficient stoves run on standard biomass fuels produced from agro-residues and energy plants (pellets and sticks). The smokeless stoves use less than half the biomass normally needed by a family and do not create health problems.



### Potential Linkage to “Family Farming”

“Family Farming” fits very well in such a model of integrated rural development under which local resources and their processing and transformation into goods and services are done to meet most of the local needs of the villagers. Supplying irrigation water and providing power for lighting, agro-processing and local enterprises are at the top of local needs. Local jobs are created in a variety of activities and many villagers combine a part-time job with family farming on their own small plots or as partners with a landowner. Women have time for more productive activities than the unpaid tasks of carrying water and collecting cooking fuel. Economically the model beats any other by ensuring that most of the income generated from electricity generation, lighting and water services, enhanced farm productivity and local value-adding enterprises and services stay within the village economy. “Family Farming” in villages in Araria district plans to cover organic growing of food and vegetables integrated where possible with fishery, fruit trees and energy plantations with locally produced seeds, bio-fertilisers and reduced irrigation water. An example is the project to form women’s Self Help Groups (SHGs) in

villages to grow and market mushroom. Others will produce and market vegetables, spices and herbs, medicinal plants, seeds and bio-fertiliser.



### Training and capacity building of villagers:

DESI MANTRA Training Centre at Araria organises courses with class room and on-the-job field training for men and women to undertake responsibilities at all levels for technical as well farming activities and jobs.



### Impacts:

The result is that many villagers are no longer forced to become migrant workers in order to ensure the families' survival. Local training and capacity building, an integral part of the development model, results in the empowerment of women and men in the village which cherished wish today is to ensure that their children grow up to have a better life than the parents have today.

The Araria program shows that a decentralised model of rural development with the objective of creating the maximum possible local self-sufficiency in food, energy, water and jobs is not only workable and economically viable but inescapable if the interlinked problems of poverty, energy and climate change are to be successfully tackled. How to bring about such a paradigm shift in development policies in the face of entrenched power of politicians, bureaucrats and quick-gain free-market investors is what we should all be worrying about.

DESI Power has experience in promoting and supporting local cooperatives, societies and other local organisations to enable villagers to participate directly in village projects and the resulting economic activities. The plan now is to mobilise the landless and marginal agriculturists and share-croppers of Araria District to start sustainable farming and energy plantations jointly with land owners to improve their income. An intended consequence of such a program may be a build-up of social and political pressure to accelerate land reforms and changes in the laws regarding sharecroppers in Bihar.

World Federalists jointly with other Swiss groups are planning to start a new Swiss cooperative called "Fair Partnerships" to provide moral, financial and technical support to "Family Farming" starting with DESI Power's program in Araria and continuing with similar projects in other locations and countries.

### Links:

<http://www.weltfoederalisten.ch/seiten/ziele/the-international-years-of-uno/2014-the-international-year-of-family-farming/family-farming-in-indien-z-b-integrierte-produktionssysteme.html>

Friends in Switzerland may visit our stand at the FairFair at Afro-Pfingsten Winterthur, Switzerland on 6-7 June 2014. <http://www.afro-pfingsten.ch/maerkte.html>