

NABARD – SDC RURAL INNOVATION FUND (RIF)

Facilitating the innovative streak of rural India



The journey traversed thus far.....



National Bank for Agriculture and Rural Development
C-24, G Block, Bandra-Kurla Complex, Bandra (East), Mumbai – 400 051

Visit us at: <http://www.nabard.org>

COMMITTED TO RURAL PROSPERITY

THRU' THE 'INNOVATION' LENS

...a glimpse of some projects supported under RIF



1. Lights on! Action ... electricity from biomass

The innovation envisages setting up a bio-mass gasifier for production of electricity from Sarpat Grass (*Sarakanda*) wastes to be used for domestic lighting, street lighting, pumping drinking water, etc, in **Jokehara, Azamgarh, UP**. While conventional bio-mas gasifiers are either based on sugarcane bagasse or rice husk, 'Sarpat Grass' or '*Sarakanda*', a non-fodder grass, is being used for the first time. An amount of **Rs. 6.705 lakh** has been sanctioned to **Ramanand Saraswathi Pustakalaya** for implementing this innovation.

2. ...from the South, now in the North-East, thanks to RIF



The project envisages use of Arecanut leaves (sheaths), otherwise wasted, for manufacture of arecanut leaf plates and bowls which are eco-friendly, bio-degradable, microwave friendly and can even hold liquids for a few hours.

Even though the activity is flourishing in the South, RIF support amounting to **Rs. 10.24 lakh** is intended to ground a 'space replicative' effort being attempted in **Barpeta district of Assam** by **DHRIITI**, an NGO.



3. Neem does 'taste sweet'



Though multiform uses of neem are well established, neem is still grown mostly on public /wasteland and collection of neem kernels is a low income generating activity

among the landless labourers in villages. **Agency for Social Action (ASA)**, an NGO in **Bolangir district of Orissa** has been sanctioned RIF grant assistance of **Rs.23.22 lakh** for an integrated neem



development plan which envisages maintenance of existing neem plantations, raising of new plantations, setting up of a nursery, scientific collection of neem seeds, processing at two levels, product formulation, marketing and profit sharing with a participatory model involving SHGs and neem development communities.

4. Tea....naturally sweetened

Stevia is a plant which is used as a natural sweetener. The innovation is in blending stevia with tea leaves to manufacture stevia tea by small tea



growers, thereby putting in place decentralized processing units. The proposal, to be implemented in **Lower Dibang Valley of**



Arunachal Pradesh by the **Essomi Foundation Trust**, has been supported under RIF with assistance of **Rs. 17.641 lakh**. The project is expected to transform the socio-economic fabric of the area.

5. Coir pith to ‘smoking sticks’ – a magical transformation

‘Smoking’ of rubber sheets is a very important process in the rubber industry. At present, firewood and coconut husk are being used, which have alternative, and more economically beneficial, uses. Further, these are basically ‘firing’ mediums and burn quickly, with less smoke. **Krishi Vigyan Kendra (KVK), Panniyur** has come up with a novel idea – of using coir pith compressed into sticks as a medium to ‘smoke’ rubber sheets. Coir pith - a necessary by-product of the coir industry - is an environmentally hazardous waste material. KVK has evolved a technology for the same and RIF support of **Rs. 5.50 lakh** is being extended to proof-test the same in **Kannur district of Kerala State**.

6. Plucking prosperity.....

Imagine an innovation that improves productivity 15x, reduces costs by a third and increases income levels of the farmer – the cotton-plucking machine developed by **Shri Bilonikar of Aurangabad** does precisely this. A first of its kind, the machine enables plucking 150 kg. of cotton per day (up from 10 kg., if done manually), resulting in savings of Rs. 1800/- to Rs. 2400/- for a small/marginal farmer cultivating

cotton on 3 acres of land. Based on the results of operational field trials, Shri Bilonikar is supported under RIF with a loan of **Rs. 15 lakh**.

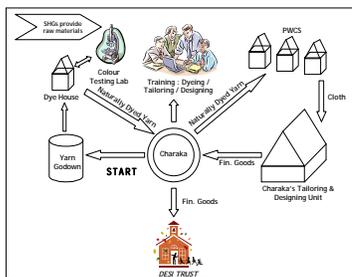
7. Building wealth...from waste

Most thermal power projects generate fly ash, which is an environment pollutant. **Technology & Action for Rural Advancement (TARA)** is implementing a project, which utilizes fly ash, to produce bricks used by the construction industry. A community-centric SHG-based business model has been envisaged thru' 40 Community Based Enterprises (CBEs) which will undertake this activity in **Chandrapur, Nagpur and Beed districts of Maharashtra**, with RIF assistance of **Rs. 43.74 lakh**. Being part of the Clean Development Mechanism, the project may earn Carbon Credits too. Talk of turning a –ve into a +ve.

8. ...Cooperation must succeed, eventually

Ever wonder what an enterprising cooperative society can do! Here is one which has simply re-designed process, product and service delivery.

Charaka Women's Multipurpose Industrial Co-operative Society in Shimoga District of Karnataka has evolved a hub-and-spoke model



for production and marketing of cloth – right from developing the perfect mix of

The essence of Innovation is in combining existing elements in new ways to create value for customers.

‘natural’ dyes in their own R&D lab, Design Development and Training, outsourcing work to primary weavers’ societies under buy-back to quality-control and centralized marketing under the umbrella brand ‘DESI’. Multiple stakeholders in the project is proof of its wider

acceptability. RIF support of **Rs 6 lakh** will go a long way in realizing the dreams ‘woven’ by the enterprising women.

9. Towards a clean and green kitchen

Imagine a stove that runs on kerosene – yet uses 50% less fuel, gives 10% more heat thereby reducing cooking time, provides a soot-free environment and is eco-friendly. This is what the **Bio-Activated Energy Mission (BAE), Bangalore** seeks to achieve thru’ their unique kerosene and steam-operated stoves for rural households. The innovation attracted RIF support of **Rs. 4.25 lakh** towards meeting the cost of ‘go-to-market’ efforts and popularizing the new concept amongst the user community.

10. ‘Mushrooming’ business

Mushroom cultivation demanded good quality spawns, production of which was very complicated - requiring a sterile, aseptic environment. The tedious pasteurization process kept many people away from this activity. The **Social Welfare Society (SWS), Chikamagalur dist.** came



across an innovative way to produce spawns – using Hydrogen Peroxide to keep out the contaminants. It not only simplified the process, but also did not require costly



equipments like autoclave, laminar flow hood, glove box, etc. To ground this low-cost innovation, SWS envisaged setting up a spawn production lab and engage SHGs in cultivating mushrooms. A marketing tie-up is also envisaged. The project has taken off with RIF support of **Rs. 3.40 lakh**.

11. Active cooling thru’ “passive evaporation”

Availability of electricity in rural areas is erratic and uncertain. The rural folk had all along been using traditional methods of ‘refrigeration’ like earthen pots, etc. Building on this, **Shri Arvindbhai Patel**, a ‘serial innovator’ from **Ahmedabad**, came up with



the idea of a Zero Energy Cooling Chamber to keep fruits and vegetables cool, even in warm conditions. These units run on the principle of passive evaporation to lower

the temperature of the chamber, keeping the vegetables stored inside fresher for longer periods, without loss to its natural taste, aroma and flavour. This innovative 'spark' is supported under RIF with assistance of **Rs. 5.91 lakh** to build prototype for field-testing of the concept.

12. Towards cleaner cotton

Ahmedabad Textile Industry's Research Association (ATIRA), Ahmedabad was sanctioned a grant assistance of **Rs.4.80 lakh** for a product innovation involving modifications in the mechanism/design of the conventional cotton depodding machine. This is expected to improve the quality of the desi variety of kapas (cotton) by reduction of trash content and separation of fragments of the pod, thereby ensuring better colour, productivity and purity.

13. Burning Biomass Brings Business Benefits



Conventionally, burning biomass initially produces smoke when 'volatiles' are burnt and finally leaves ash as residue after combustion of 'carbon.' **Nishant Bio Energy**



Consultancy of Mohali, Chandigarh, run by Shri Ramesh Kumar Nibhoria, winner of the Ashden Award (a.k.a. the Green Oscar), has devised the *Sanjha Chulha*, which uses an innovative combustion technology – by providing air where the fuel is, to facilitate faster and cleaner combustion. Process innovation is in delivering the product to small business units, thru' a deferred payment model. RIF supports this innovation in a very 'innovative' way – apart from grant assistance, a venture-like support is also envisaged, aggregating **Rs. 23.83 lakh**.

14. Finer fibres in no time - Innovative Jute Retting

Retting is a process to soften the jute fibres by soaking them in water or by exposure to moisture to facilitate partial rotting. The innovative process, initially propagated by the National Institute of Research on Jute and Allied Fibre Technology (NIRJAFT), Kolkata, involves less drudgery, requires less water, cuts process time by two-thirds, increases productivity and improves quality of output. **Manosri Tarun Bani Mandir**

has been sanctioned grant of **Rs. 6.098 lakh** for this project, to be implemented in **Howrah district of West Bengal**.

15. Worms do like mango peels

Hosur in Krishnagiri district of Tamil Nadu, a mango-producing belt, faced the problem of accumulation of mango fruit waste. **SHARAZ Farm Academy** spotted a business opportunity here – of treating mango peel, which is acidic in nature, with egg shells which are



alkaline, for producing vermi compost, which could then be sold to the mango growers' themselves. With RIF support of **Rs. 8.91 lakh**, the project, being implemented in **Krishnagiri district**, is well on its way to realizing its objectives.

16. Storing water, where it falls – Jalkunds

The North East Region of the country has uneven topography and associated with it is the problem of heavy surface water run-off. **ICAR Research Centre, Ummiam, Meghalaya** came up with the idea of setting up low cost rain water harvesting structures or “*Jalkunds*” using locally available material like grass, bamboo, etc. 40 such structures are planned in the **4 NE States of Meghalaya, Tripura, Nagaland and Manipur**, with RIF assistance of **Rs. 10 lakh**.



*All Innovations should have a
'Skin' and 'Soul'
– while Impact and Sustainability
provide the 'Skin',
Uniqueness becomes the 'Soul'.*