

Rural Innovation Fund

Gist of Innovative Projects Sanctioned at Head Office

2006-07

1. **SHARAZ Farm Academy, Krishnagiri district, Tamil Nadu** has been sanctioned a grant assistance of Rs.8.91 lakh for setting up 5 demonstration units for converting mango peel into Organic manure. The project envisages converting mango peel, a waste product of the mango processing industry which is environmentally hazardous, into manure. Krishnagiri district is a horticulture belt, where mango peel is readily available. Mango peel, being acidic in nature is treated with egg shell which is alkaline (available in plenty in the nearby areas) to produce vermi compost which could be used by the farmers in the district.
2. **DHRIITI, Barpetta district, Assam**, has been sanctioned grant assistance of Rs.10.24 lakh for manufacture of arecanut leaf plates and bowls which are eco-friendly, bio-degradable, microwave friendly and can hold liquids, even for a few hours. Even though the activity is flourishing in the South, RIF support is intended to ground a 'space replicative' effort being attempted in Barpetta district of Assam, where despite having considerable acreage under arecanut, the fallen leaves are not put to use. DHRIITI has adopted the model of a member-driven Producers Institution with multi-dimensional roles.
3. **Agency for Social Action,(ASA), Bolangir district, Orissa**, has been sanctioned grant assistance of Rs.23.22 lakh for an integrated neem development plan in the district. The project 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.

2007-08

4. **AAVISHKAR India Micro Venture Capital Fund** has been sanctioned Rs. 10 Crore as venture capital assistance for providing incubation assistance to enterprises in farm, non-farm and micro-finance segments in the rural sector.
5. **ICAR Research Centre, Ummiam, Meghalaya** was sanctioned grant assistance of Rs.10 lakh for setting up low-cost rain water harvesting structures (jalkunds) - 10 each in the 4 North eastern States of Meghalaya, Tripura, Nagaland & Manipur. 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 came up with the idea of setting up low cost rainwater harvesting structures or “*Jalkunds*” using locally available material like grass, bamboo, etc. The process innovation involves the use of polythene sheets as lining material for the water harvesting structures, to reduce seepage/percolation loss.

6. **Essomi Foundation Trust, Lower Dibang Valley, Arunachal Pradesh** has been sanctioned grant assistance of Rs.17.641 lakh for bolstering the **stevia tea cottage industry in village Mayu, Roing of the District**. 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 project is expected to transform the socio-economic fabric of the area.
7. **Om Shree Sai Kalyan Samiti, Barabanki district, Uttar Pradesh** has been sanctioned grant assistance of Rs.11.47 lakh for cultivation, processing, packaging and marketing of medicinal and aromatic plants (*ashwagandha*, lemongrass, citronella, isabgol and satavar) in the District. The project involves a process innovation, as it envisages a series of activities ranging from cultivation, processing, packaging to marketing of medicinal crops through seven SHGs comprising small farmers and the landless in activities tailored to fit specific groups.
8. **ICAR Research Complex for North Eastern Hilly Region, Tripura** has been sanctioned Rs.13.37 lakh for issuance of 2000 Soil Health Cards for members of 70 Farmers’ Clubs. Though the issuance of Soil Health Cards is in vogue in developed States, an intervention of this kind in the North Eastern Region could be viewed as an innovation, particularly as no similar attempts have been made by any other agency to evaluate soil fertility thru’ distribution of soil health cards among the farmers of Tripura. The project seeks to demonstrate the efficacy of educating the farmers on the nutrient status of the farm land and the resultant benefits.
9. **Manosri Tarun Bani Mandir, Howrah district, West Bengal** has been sanctioned grant assistance of Rs.6.098 lakh for an Innovative Jute Retting Project in the District. 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.
10. **Action for Rural Development (AFORD), Ukhrul district, Manipur** has been sanctioned grant assistance of Rs.12.25 lakh for implementation of a

Rooftop Rainwater Harvesting Project in the district. The proposal envisages construction of 25 low-cost Rooftop Rainwater Harvesting Structures in the district. This could be considered as a space replicative effort for Ukhrul district where this approach has never been practised before.

11. **Adarsh Mahila Mandal (AMM), Raipur district, Chhatisgarh** has been sanctioned grant assistance of Rs.1.418 lakh for implementing a community-centric, sustainable household water-harvesting programme in Rajim Block. The project involves putting up simple structures like soak pits, water harvesting structures like small stop dams, maintenance of kitchen gardens, etc., sensitising and capacity building of the local people and putting in place an institutional mechanism to carry the process forward. The activities, therefore, blend simple technology for water harvesting with a participative implementation strategy.
12. **Shri.V.V.Bilonikar, Aurangabad, Maharashtra** has been sanctioned loan of Rs. 15 lakh (repayable at 13% rate of interest within a period of 5 years) for setting up a pilot commercial plant for manufacture of an innovative Cotton plucking machines. 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.
13. **Marketing and Research Team (MART), New Delhi** has been sanctioned grant assistance of Rs.15.68 lakh to develop 10 rural haats into Rural Business Hubs in Orissa and select 50 all over the country. The project will be implemented by PRIs and the NGO would facilitate in co-ordinating the programme with various Govt./private agencies.
14. **Krishi Vigyan Kendra, Panniyur, in Kannur district of Kerala** has been sanctioned grant assistance of **Rs.5.50 lakh for preparation of smoking sticks using coir pith for smoking rubber sheets.** ‘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. The project envisages the use of 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. RIF assistance is intended to proof-test the technology developed by KVK.
15. **Ramanand Saraswathi Pustakalaya, Azamargh district, Uttar Pradesh** has been sanctioned a grant assistance of Rs.6.705 lakh for setting up a bio-mass gasifier for production of electricity from Sarpat Grass (Sarakanda) and

other agro wastes, to be used for domestic lights, street lights, operating drinking water pump, 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.

16. **Technology & Action for Rural Advancement (TARA)**, New Delhi was sanctioned grant assistance of Rs.43.74 lakh for a project proposal for production of fly ash bricks in Chandrapur, Nagpur & Beed districts of Maharashtra where thermal power stations are situated. A community-centric SHG-based business model has been envisaged thru' 40 Community Based Enterprises (CBEs) which will undertake this activity. Being part of the Clean Development Mechanism, the project may earn Carbon Credits too. The revenue is to be shared in the ratio of 75:20:5 between SHGs, TARA & NABARD.
17. **Central Potato Research Station, Shillong, a unit of ICAR** has been sanctioned grant assistance of Rs.4.33 lakh for developing a low cost storage technology for table potatoes and seed potatoes in 5 villages of East Khasi hill district of Meghalaya. Currently traditional potato storage methods like heaps, pits, storage in wooden structures in layers or in baskets, leaving tubers unharvested in the field itself etc., are being practised by farmers. The structures developed with this technology are farmer-friendly, entail less costs, use locally available material, are easily adaptable and have a low recurring expenditure that would enable the farmers to reduce storage losses, while at the same time ensuring better prices.
18. **Centre for Action Research & Management in Developing Attitudes Knowledge & skills in Human Resources (CARM-DAKSH), Bilaspur, Chhattisgarh** has been sanctioned a grant assistance of Rs.1.20 lakh for a project on Systematic Rice Intensification (SRI)-cum-5% Model for Water Harvesting in the district. The technique of SRI results in substantial increase in paddy production without increasing the input cost by providing better growing conditions in the root zone, saving in inputs, improving soil health and optimising water usage. The projects attempt to introduce the SRI with 5% model i.e., creating a small water harvesting structure in paddy plot to address the problem of erratic rain fall, which is best suited for farmers who are resource poor.
19. **Charaka Women's Multi-purpose Industrial Co-operative Society, Shimoga, Karnataka** has been sanctioned a grant assistance of Rs.6.00 lakh for a project proposal for developing a cost effective process for producing naturally dyed cotton yarn in Bheemanakone village of Sagar Taluka. The agency has evolved an innovative hub-and-spoke model for production and marketing of cloth – right from developing the perfect mix of

- '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 '*DESP*'. Multiple stakeholders in the project is proof of its wider acceptability and long-term sustenance.
20. **Bio-Activated Energy Mission (BAE), Bangalore** was sanctioned a grant assistance of Rs.4.25 lakh to popularise an innovative model of a kerosene-cum-steam operated stove for rural households by way of road shows, demonstrations and field trials besides training at district locations. The assistance would also part-fund a subsidised distribution mechanism, to facilitate the rural poor in accessing this innovative product. The concept approved by the Dept. of Science & Technology, GoI attempts to increase thermal efficiency by 10%, reduction in usage of kerosene to the extent of 50% and reduction in cooking time. The non-deposition of carbon monoxide on the utensils would also contribute to an eco-friendly smoke and soot-free environment.
 21. **Social Welfare Society (SWS), Chikamagalur district, Karnataka** has been sanctioned grant assistance of Rs.3.40 lakh for promoting low-cost spawn production unit and setting up home-based production units for mushrooms in the District. Mushroom cultivation demands good quality spawns, production of which is very complicated and requires a sterile and aseptic environment. . The agency has come across an innovative way to produce spawns – using Hydrogen Peroxide to keep out the contaminants. This simplified process does not require costly equipments like autoclave, laminar flow hood, glove box, etc. To ground this low-cost innovation, the agency intends to set up a spawn production lab and engage SHGs in cultivating mushrooms. A marketing tie-up is also envisaged.
 22. **College of Dairy and Food Science Technology, Maharana Pratap University of Agriculture and Technology, Udaipur, Rajasthan** has been sanctioned a grant assistance of Rs.7.60 lakh for a project proposal for setting up 5 Solar Tunnel Dryers (STDs) in Rajasthan. The solar tunnel dryer is a walk-in poly house and will be cheaper for drying of commodities on a large scale. In the existing Solar tunnel, drying is not fast as proper draught for removing moist air is not maintained in the dryer and heat loss is more during the winter. The new model is designed is designed to prevent heat loss and an exhaust fan coupled with a humidity controller will be installed in the dryer for maintaining proper draught.
 23. **Shri Arvindbhai R Patel, Ahmedabad** has been sanctioned a grant assistance of Rs.5.91 lakh for a project proposal for setting up natural cold storage units for vegetables and potatoes. The Zero Energy Cooling Chamber

designed by the innovator would 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. RIF support has been given to build prototype for field-testing of the concept.

24. **Ahmedabad Textile Industry's Research Association, (ATIRA)**
Ahmedabad was sanctioned a grant assistance of Rs.4.80 lakh for a project proposal for a product innovation involving modifications in the mechanism/design of the conventional cotton de podding machine 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.
25. **The Energy and Resources Institute (TERI), Bangalore** was sanctioned grant assistance of Rs.6.90 lakh for setting up demonstration units for promotion of Biomass Gas Stoves (BGS) for small commercial applications in 2 villages in Gouribidanur taluk of Kolar district, Karnataka. The project, apart from introducing innovative bio-mass gasifiers/stoves in rural areas and involving SHGs for promoting and propagating the use of BGS as energy efficient devices, attempts to ground a self-financing sustainability model by involving SHGs for downstream financing of new beneficiaries through a mechanism akin to a revolving fund.
26. **M/s. Nishant Bioenergy Consultancy (P) Ltd.**, Mohali, Chandigarh has been sanctioned assistance of Rs.23.83 lakh (comprising a Venture-like support of Rs. 12.75 lakh towards meeting block capital requirements (repayable @ 10% of sales realization p.a.) and a grant assistance amounting to Rs. 11.08 lakh for meeting (i) working capital gap, (ii) 50% of the set-up costs of briquette-making units and (iii) Evaluation/Documentation costs for demonstration, manufacture, installation and scaling up of bio-mass based "Earth" Stoves (*Sanjha Chulha*) in the district. The innovation centers around an innovative combustion technology which provides air where the fuel is, to facilitate faster and cleaner combustion as well as in the process of delivering the product to small business units, thru' a deferred payment model. The project also envisages setting up of decentralised production units for manufacturing low-density biomass briquettes thru' rural women and a self-sustained, locally managed supply mechanism to provide briquettes to downstream Earth Stove units.
27. **Society for Advancement of Rural Poor (SARP), Puri, Orissa** has been sanctioned grant assistance of Rs.6.64 lakh for a project proposal for organic production of seeds and seedlings for vegetable growers in 15 villages in Pipli of the District. The project attempts to introduce organic farming - from

- supply of organic seeds to marketing of organic produce by involving the village farmer clubs, forming dedicated organic farmers groups and taking up the activities under the supervision and technical guidance of the Champion who has domain knowledge.
28. **The Society for Participatory Research and Development Action (SPREDA), Kanpur, Uttarpradesh** has been sanctioned grant assistance of Rs.8.76 lakh for the Development and Preparation of Bio Pesticides through SHGs in Kanpur. The proposal envisages forging a unique linkage – between poor, illiterate, rural women formed into groups on the one hand and the research/technical expertise of a premier institution like IIT on the other and develop an integrated model that provides not only for capacity building of the identified women, but also in developing biopesticides, its field testing and production thereby providing an avenue for gainful self employment. According to a literature survey done by IIT, Kanpur, this may be the first research of its kind undertaken to test the efficacy of Lantana, Lemon Grass and Tulsi as biopesticides,.
 29. **IARI, Regional Station, Shimla, Himachal Pradesh** has been sanctioned grant assistance of Rs. 9.14 lakh and additional of Rs. 3.84 lakh for popularisation and refinement of integrated disease management practices in apple nurseries of Himachal Pradesh. The proposal involves preventive, curative, eco-friendly, farmer friendly and educative approaches such as soil solarization, mixing of locally available botanicals such as *Vitex nigandoo* etc., which have never been tried out in a systematic way in apple nurseries.
 30. **Beliachandi Aastha Narikalyan Kendra (BANK), South 24 Paraganas Dist. West Bengal** has been sanctioned grant assistance of Rs. 5.925 lakh for implementing a pilot project for rainwater harvesting to improve sub-surface water quality and BG algae culture in rainwater harvesting structures in the District. The project envisages an integrated process of collecting rainwater, storing it in renovated ponds or by recharging sub-surface aquifers and utilizing the water for irrigation/drinking water purpose. alongwith culturing BG algae in the surface water storage structures, viz., ponds. The entire process is expected to address larger issues like reducing drudgery for the local community, increasing agricultural productivity and generating employment opportunities.
 31. **Dr. A Jagadeesh, Head, R&D, Centre for Energy and Sustainable Resources, RM Engg. College, Kavaraipettai, Tamil Nadu** has been sanctioned grant assistance of Rs. 2.10 lakh for Demonstrating Innovative Low-cost Technologies for new models of Water Heater, Drier and Water Disinfectant mechanism, which effectively harness solar energy. The project also attempts to popularise the concept of Hydroponics, growing plants in

mineral -nutrient solutions (using non-soil based medium) and sensitise the community about the benefits of the above environment-friendly practices.

32. **Bidhan Chandra Krishi Viswavidyalaya, West Bengal** has been sanctioned grant assistance of Rs. 19.71 lakh for Integrated Development of Agriculture in the Semi-arid lateritic regions of Bankura, Purulia and Birbhum districts, West Bengal State. Though the techniques proposed to be employed are not innovative in scientific and technical terms, its application in areas/regions that are in dire need of the same and where such interventions could positively influence the lives of the people, could be termed as innovative in a “space replicative” sense. Eventually, it is expected that the villages would be able to refine their utilization of land resources by way of conservation-friendly yet economically-beneficial activities, thereby enhancing income and simultaneously enriching the resource base for long-term sustenance.

2008-09

33. **Vananchal Gramin Bank, Jharkhand** was sanctioned grant assistance of Rs.1.40 lakh for purchase of 2 sets of LCD projectors & DVD Players for setting up village knowledge centres in Jharkhand. The innovation stems from the fact that a Regional Rural Bank has championed a project for setting up village knowledge centres for dissemination of information on agriculture & related areas using audio visual aids in Jharkhand State.
34. **M/s Prakash Industries, Mohaan, Ramnagar, Nainital District, Uttarakhand** has been sanctioned Venture-like assistance of Rs.25.00 lakh for implementing the project for production of Pine wool for water cooler pads and Lignin Chemicals from Dry Pine Needles (DPN) by adopting the low pressure process and grounding the research work already completed thru’ setting up a pilot commercial plant for production of pine wool. The project has also attracted a matching grant support from the Dept. of Science and Technology under the Technopreneur Promotion Programme (TePP).
35. **Mahamaya College of Agricultural Engineering and Technology (MCAET), Uttar Pradesh** has been sanctioned grant assistance of Rs. 34.80 lakh for implementing the project for feasibility testing and prototype manufacturing of improved farm equipments. The proposal involves taking innovations from lab to land, making headway in mechanization of farming operations and reduction of drudgery by reducing manual operations of farm equipments in the most underdeveloped eastern U.P. The proposal involves field testing of new farm machineries already developed by R&D organizations in eastern UP, to establish its feasibility for large scale usage, to manufacture prototype of the identified machinery based on the field studies, to provide training to farmers in the usage of these machineries and to

facilitate commercial production of these machineries by training the local entrepreneurs in manufacture of these equipments

36. **M/s Vanarai Trust, Pune, Maharashtra** has been sanctioned grant assistance of Rs.34.22 lakh for developing software, in collaboration with Software Institute for Rural Development, Pune. The proposal seeks to leverage technology for providing extension services to the farmers at their doorsteps at a cost much less than what it would have otherwise cost using conventional means. This can also make the village knowledge Centres/clinics more “Kisan Friendly” by providing scientific information to farmers on how best to do farming operations.
37. **Avinashalingam University for Women, Coimbatore, TamilNadu** has sanctioned grant assistance of Rs. 24.90 lakh for developing Women Technology Park at Vivekanandapuram, Karamadai Block, Coimbatore. A technology park in the vicinity will be of great use and relevance for rural women for trial, experimentation and training. Hands-on experience would be possible and this would be more effective as compared to short field visits, etc. for rural people to colleges/universities/demonstration plots etc.
38. **Ajeevika Bureau, Udaipur district, Rajasthan** has been sanctioned grant assistance of Rs. 26.34 lakh for setting up of Skill Training and Placement Cell for Rural Migrant Labour in South Rajasthan. The proposal is an attempt to address the cause of rural migrant labourers by providing them the skills to seek meaningful and gainful employment. This initiative would, thus, lead to creation of a Labour Exchange that will not only connect migrants to jobs, but also provide information, support and protection to the rural migrant labourers.
39. **Man & Wild (NGO), Kamrup Dist., Assam** has been sanctioned grant assistance of Rs. 3.20 lakh for Installation of Zero Head Hydro Turbine (ZHHT) for irrigation in Kamrup District of Assam State. Conventional turbines were semi-immersed versions that resulted in 50% efficiency loss, due to the uselessness of the upper blades, which did not generate any mechanical output. This proposal envisages proof testing the concept of a turbine, which is fully immersed, with half submerged blades, leading to doubling in operational efficiency.
40. **MAVIM, Maharashtra** has been sanctioned grant assistance of Rs. 8.66 lakh for strawberry cultivation in Nandurbar district Maharashtra. The project is proposed in a non-traditional strawberry cultivation area, the planting / harvesting season is also proposed to advanced so as to derive the benefit of better price thru’ early market arrivals of the product. The proposal also involves SHG members (who are also tribals) in an organized way to

undertake the activity, right thru' the value chain – from production to processing and marketing of the final product. Further, the actual cultivation immediately follows the training component and, thus, facilitates operationalising the learnings in the field.

41. **Shri Gajraj Singh, farmer, Lalitpur District, Uttar Pradesh** has been sanctioned grant assistance of Rs. 1.59 lakh for for development and fabrication of an improved prototype of a Water Wheel (Pani Chakki) for lifting water for irrigation in Jakhora Block of Lalitpur District, Uttar Pradesh. The concept of the Water Wheel is based on the principle of conversion of Potential Energy into Kinetic Energy. With an innovative compound gear arrangement, the water wheel attains a speed of 1000 to 1500 rpm, with an approximate hp of 6.5 hp to 10 hp, depending on velocity of water and the diameter and design of the water wheel. With this arrangement, water could be carried to a distance of 900 m from the water wheel site, with an additional vertical lift of 14 m.
42. **Bastar Rachana Samiti, Bastar District, Chhattisgarh** has been sanctioned grant assistance of Rs.6.81 lakh for implementing a proposal on Healthy Economic Base for Tribals in Lahangidua Block of the District. The project attempts to evolve a 'unique developmental package' that encompasses optimum utilization of local resources thru' community participation, introduction of low-cost technologies to improve community health (especially children) thru' increase in nutrition levels and improved sanitation facilities, enhancing income levels thru' kitchen gardens and reducing drudgery thru' bio-gas plants for poor tribals.
43. **Pradan, Ravagada District, Orissa** has been sanctioned grant assistance of Rs.13.80 lakh for implementing a project on Community-owned Pipe-based Gravity Flow irrigation in Kolnara Block of the District. While traditional land and water development programmes focused on conservation, this proposal applies the technique of utilizing the gravity flow for tapping water in the upper reaches to addresses the need for proper and more optimum utilization of existing water resources by involving the rural community. The entire process, besides being simple, is expected to address larger issues like reducing drudgery for the local community (by providing potable water nearby), increasing agricultural productivity (by facilitating multiple cropping), generating employment opportunities resulting in increasing income levels and consequently improving living standards of the rural poor.
44. **College of Horticulture and Forestry, Central Agricultural University, Pasighat, Arunachal Pradesh** has been sanctioned grant assistance of Rs. 25.65 lakh for establishment of Touch Screen Kiosks. The proposal envisages providing access to good extension services and modern technological

practices to tribal farmers. With abundant scope for improving productivity in main crops like paddy and orange, the touch screen kiosks with both static and dynamic content allows for an interactive approach enabling a two way exchange of problems and solutions hitherto unknown in remote areas. This is reportedly the first ICT initiative at the village level involving tribal communities.

45. **World Wide Fund for Nature, (India) Simla, Himachal Pradesh** has been sanctioned grant assistance of Rs.7.09 lakh for setting up demonstration Units for upgradation and modernization of Gharats in Kullu District, of Himachal Pradesh. The proposal involves incremental innovation to improve the operational efficiency of the existing Gharats and also facilitate generation of electricity. Involvement of SHGs for maintenance of the Gharats would generate employment/additional income generation opportunities with optimal use of the natural resources for energy source.

46. **Gramvikas Samithy (GRAVIS), Jaipur, Rajasthan** has been sanctioned grant assistance of Rs.17.55 lakh for motivating community to maintain purity of Tharparkar Breed in 10 villages of Jaisalmer, Rajasthan. The objective of the project is to create a nucleus of Tharparkar breed of cattle (which is on the endangered list) in villages by introducing bulls of this breed along with the development of silvipasture component to be used as fodder for the cattle.

47. **IASST(Institute of Advanced Studies on Science & Technology), Guwahati, Assam** has been sanctioned grant assistance of Rs. 16.60 lakh for Seed Production of Muga Silkworm , Guwahati, Assam. Muga Silk is a natural protein fibre secreted by the Muga Silkworm (*Antheraea assama Wn*), which is reared exclusively in the NE, with 99% of the production coming from Assam. The seed, presently being procured from Govt. grainages or collected from the forests are defective resulting in infection, prolonged moth emergence, unsuccessful hatching of eggs, etc. The project, thus, aims to find out the factors to obtain synchronized moth emergence to increase coupling rate, higher and uniform hatching of muga silkworm and also to shorten the hatching period, induce artificial parthenogenesis, study the effect of exposure on DFLs to different temperature and humidity on rearing of worms in outdoor, etc.

48. **Shri Gour Gopal Pal, West Bengal** has been sanctioned grant assistance of Rs. 77,500/- for manufacturing a prototype of Progressive Tiller designed by him that would be ten times effective than the normal bullock driven tiller. The design of the conventional tiller is to be modified to reduce the friction between the earth and the tiller so as to maximize force, thus conserving

energy. The tiller would save hard manual labour as extra downward pressure is eliminated and the farmer seated on its trolley could drive the tiller by controlling its steering only. The design has been patented with GoI.

49. **Jagriti Kisan Club, Himachal Pradesh** has been sanctioned grant assistance of Rs.9.75 lakh for production and marketing of organic milk. The project involves lady members of Farmers Club in production and marketing of organic milk.
50. **Society for Rural Technology, Pauri Dist., Uttarakhand** has been sanctioned grant assistance of Rs. 32.42 lakh for Agri Business Development in identified clusters of Thalising Block of the District. The proposal seeks to seamlessly integrate development of agriculture, marketing and infrastructure thru' community organization. The proposed package could be viewed as a PPPP (Public-Private-Panchayat Partnership) Model with DRDA contributing more than 60% of the total project outlay of Rs. 140.45 lakh towards creating critical infrastructure for increasing agricultural production, value addition and transportation facilities, support from the PWD, Horticulture Mission and the State Departments of Agriculture and Minor Irrigation for irrigation canals, connectivity through roads and ropeways (for transporting produce to road-heads and carting agri-inputs to the higher reaches), collection centers, cold storages, solar fencing, etc.
51. **Gandhigram Trust, Dindigul District, Tamil Nadu** has been sanctioned a grant assistance of Rs. 17.34 lakh for creation of self sustainable system for solid and waste water management in the villages which would improve the local environment and community health and also enhance the income levels by providing supplementary income through fodder and vegetable cultivation. The project attempts an integrated approach of waste management.
52. **VAAGDHARA, Banswara Dist. Rajasthan** has been sanctioned grant assistance of Rs. 16.74 lakh for attaining food security for marginalized tribal communities of the District. The proposal attempts to address the problem of food insecurity of these communities by establishment of an infrastructure of grain banks, to be maintained by SHGs, which will work as a disaster mitigation strategy in case of severe drought or other natural calamities.
53. **M/s. Prodigal Homes (NGO), Peren Dist, Nagaland** has been sanctioned grant assistance of Rs. 9.02 lakh for implementing the proposal for Innovative cultivation and drying of Naga King Chilli in Dunki Village, Peren District of Nagaland State. Naga King Chilly is traditionally cultivated in bamboo tracts. The innovative technology involves use of bamboo shoot juice extract to manage pests and fungal diseases, besides an innovative drying mechanism using silica gel to reduce atmospheric humidity and hasten the drying process. The innovative dryer uses silica gel to reduce atmospheric humidity by reducing the moisture content in the air by 30% to 40% and 1000-2000 kg raw

chilly (10x more) can be dried per batch. This will help in drying large quantity of produce during the peak production season and avoid wastage due to rotting of fruits.

54. **Shridevi Institute of Engineering and Technology, Tumkur Dist. Karnataka** has been sanctioned grant assistance of Rs.6.00 lakh for implementing a project on pilot basis on Bio-diesel production for upliftment of Rural Farmers in Tumkur district, Karnataka. The project proposes to design low cost hand-operated decorticator, with a provision for motorisation, suitable for Pongamia seeds, which would lead to reduction of drudgery to rural women. The project also envisages low cost oil expeller with 3-4 litres/hour with oil recovery of 95% and low cost esterification unit with 10 litres capacity, which can be used at the farm level.
55. **Ahmedabad Textile Industry's Research Association, Ahmedabad** was sanctioned grant assistance of Rs.4.05 lakh for enhancement of productivity and improving the quality of yarn so as to increase the earning of poor weavers by modifications to existing Amber Charka. The proposal is to modify certain parts of the existing Amber Charkha to optimize parameters like bins on spindles, alignment of various parts, eccentricity of drafting rollers, size/design of some parts and top arm pressure. This will minimize the breaking rate of machine and enhance the quality of yarn produced.
56. **DISHA Gramin Vikash Manch, Bhagalpur distict, Bihar** has been sanctioned grant assistance of Rs.21.98 lakh for Development/Revival of Manjusha Art in the District. The proposal aims to lift the Manjusha art form which was traditionally done to propitiate Gods by the Gardener community, from a purely religious motive into commercially valuable products thereby providing income generating avenues for over 2000 rural women by in one of the most backward districts of the country. The project seeks to facilitate obtaining patent/GI certification of the art form and establish a producer company to manage the commercial / marketing operations.
57. **M/s Hallos Fruit Processors, Pallakkad** has been sanctioned venture-like assistance Rs.40.30 lakh (Rs. 27.63 lakh towards Plant & Machinery and Rs. 12.67 towards working capital) for setting up a fruit-processing unit using the technology Developed by DFRL. Hurdle technology, which is eco friendly in nature, involves minimal processing for greater health benefits, thereby ensuring gentle and effective preservation of fruits. The project is for scaling up of the technology transferred by DRDO thru' a pilot commercial plant. Commercialisation of the technology will ensure better price realization for farmers and provide high-end customers with ethnic fruits, with by-products like vermi compost and biogas.
58. **Tamil Nadu Scientific Research Organisation, Pudukkottai, Tamil Nadu** has been sanctioned grant assistance of Rs.2.60 lakh for Low Cost Spirulina Cultivation for Poverty Alleviation in Iyanarpatti Village in the District. The

- concept involves training farmers on low cost spirulina production to support them in setting up of production units in order to enhance their nutritional status and also increase their income levels.
59. **People Welfare Association and Yoiren Loishan, Manipur** has been sanctioned assistance of Rs. 26.39 lakh (Venture-like assistance of Rs. 24.95 lakh and Grant assistance of Rs. 1.44 lakh) for Removal of arsenic from drinking water. The proposal envisages providing Arsenic free drinking water to the villages in the area of Kakching sub-division of Thoubal district of Manipur by installing an Arsenic removal plant.
 60. **Action for Rural Development, AFORD** has been sanctioned grant assistance of Rs. 7.00 lakh for Roof Top Rainwater Harvesting System, Manipur. The project is proposed in Ukhrul District (covering 350 tribal families in the 1st phase) which has the characteristics of hilly terrain, rain-fed nature, acute water shortage in dry season, only 20% of the project area covered by piped drinking water supply and high cost of exploitation of ground water. The approach envisaged in the project is innovative to the area.
 61. **Rural Area Social Development Association (RASDA), Manipur** has been sanctioned grant assistance of Rs.12.00 lakh for Sustainable development of marginal farmers through innovative water management. The proposal envisages a multipronged approach to mitigate the hardships of marginal SC farmers in the Imphal West District of Manipur, by promoting rainwater harvesting for irrigation purposes by way of construction of farm ponds and to convert monocropped rice area into double crop, encourage fish farming in the rainwater storage structures, promote organic farming in the perimeter of the dykes, establish vermicompost units on a small scale by the farmers. Soil analysis of the embankments and soil mapping is also proposed.
 62. **Tribal Youth Council(TYC), Manipur** has been sanctioned grant assistance of Rs.29.34 lakh for Kanggiu Micro Hydel Power Project, Manipur. The proposal is for setting up a 20 KW(2 x 10) Micro Hydel Power plant by utilising the downstream water from the perennial 'Kanggiu' Stream in Thebram village, in Senapati District of Manipur, to serve Thebram and nearby 6 villages where basic amenities like electricity are absent. The proposal also aims at utilising the tail-end water for irrigation purposes in about 100 ha. paddy fields. The project will be implemented with technical support from M/s Jalshakti Engineering Pvt. Ltd. Kolkata.
 63. **National beekeeping and Honey Mission (NBHM)** has been sanctioned assistance of Rs.22.44 (Rs. 14.04 lakh as venture-like assistance for setting up processing unit and Rs. 8.40 lakh as grant assistance for apiaries) for Modern Apiaries and Establishment of Honey Processing Unit at Mima village, Nagaland. The proposal envisages developing scientific and sustainable beekeeping in the traditional bee keeping areas of Mima village. It is proposed to set up a honey processing unit cum utility centres for processing and value

- addition and set up a retail outlet by the Mima Beekeeping Committee in the State capital, in collaboration with National Honey Beekeeping Mission.
64. **Anarde Foundation** has been sanctioned an assistance of Rs.37.00 lakh (Venture like assistance of Rs. 32.50 lakh and Grant Assistance of Rs. 4.50 lakh) for installation of Micro Drinking Water Projects in 5 districts of Gujarat based on reverse osmosis technology. The proposal is for installing 5 micro drinking water treatment plants on a pilot basis in 5 selected villages where the availability of safe drinking water is a problem. The project also integrates provision of community toilets in the area. The proposal demonstrates a revenue generating model, replicable with PRI/Community participation and FI funding.
 65. **M/s. Polyene Film Industries, Chennai** has been sanctioned grant assistance of Rs. 7.50 lakh for pilot marketing of 100 pumpsets on floating platforms. The plastic floating platform has been developed with an indigenous self priming chamber to be placed inside the well which could be used for irrigation purposes. The assistance has been granted towards subsidization @ Rs. 7,500 /- (maximum) per platform for pilot marketing of 100 units.
 66. **Karnataka State Sericulture Research and Development Institute (KSSRDI), Bangalore** has been sanctioned grant assistance of Rs. 9.79 lakh for popularisation of the innovative technologies developed by the Institute through two Chawki Rearing Centres (CRCs) to be set up in Haveri and Chitradurga Districts of Karnataka. The proposal also seeks to disseminate certain processes developed by KSSRDI and improve the economics of sericulture.
 67. **M/s. Modern Technical Centre, Pune** has been sanctioned a grant assistance of Rs. 36.00 lakh for developing a prototype of a power generation energy machine using animal. The power to be generated can be stored in batteries also for use during nights, etc. The Champion has been advised to explore the possibility of joint patenting of the product with NABARD.
 68. **Centre for Collective Development (CCD), Andhra Pradesh** has been sanctioned assistance of Rs. 77.18 lakh (Grant assistance of Rs. 4.06 lakh, Venture-like assistance of Rs. 9.72 lakh and Working Capital Loan assistance of Rs. 63.4 lakh) for setting up of groundnut mill by the Federation of Farmers Cooperatives. The project envisages a business model by setting up a member-owned, self-sustaining groundnut processing unit catering to the requirements of farmer-members in the drought-prone region of Anantpur.
 69. **Natural Resources Development Project (NARDEP) – Vivekananda Kendra, Kanyakumari** has been sanctioned grant assistance of Rs. 26.10 lakh for field-testing 100 units of 1 cu.m. “Sakthi Surabhi” model biogas plants in different geographical locations, climatic conditions and by using different

input materials that would provide alternative fuel for cooking gas from kitchen waste. The proposal seeks to simplify the biomethanation plant that is better suited to individual households.

70. **Shri Manihar Sharma, Imphal** has been sanctioned a grant assistance of Rs. 6.20 lakh for setting up a workshed/Common Facility Centre, tools, implements and other essential for taking forward his innovations. The workshed would be shared with other local innovators too for taking forward their innovation.
71. **Nagaland Empowerment of People through Economic Development (NEPED), Nagaland** has been sanctioned grant assistance of Rs. 30 lakh for establishing a unit for manufacture of 150 Hydrogers for field testing and use by farmers in Nagaland. The Hydrogers are hydro machines used for production of hydro electricity by using the numerous small streams. The project is funded jointly by GOI, Govt of Nagaland and Tata Trust.