# National Innovation Foundation Annual Report 2004-2005

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#### 1. The Year at a Glance

With its sustained zeal and enthusiasm, NIF achieved significant results in identifying, evaluating and documenting grassroots innovations and traditional practices from all over the country. It achieved significant milestones at many levels. The fourth campaign for scouting innovations and traditional knowledge practices, conducted over the calendar years 2003 and 2004, added more than 16,400 innovations and practices to the national register. An MOU was signed with CSIR for value addition to outstanding practices and innovations. The NATP project to document and add value to unique agricultural practices and innovations was undertaken. MVIF was operationalized, with some more projects being supported under this scheme. Towards the end of the financial year, in January 2005, the Third National Innovation Award function was held at Ahmedabad and awards were given to outstanding innovations and traditional knowledge practices.

This introductory section presents an overview of the various activities undertaken during the year 2004-2005. Subsequent chapters provide details.

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# 1.1. Major Campaigns

# 1.1.1 The Fourth National Campaign

The Fourth National Campaign for scouting Grassroots Innovations and outstanding Traditional Knowledge saw a manifold increase in the number of entries with the number of districts showing a significant rise; 16455 innovations and traditional knowledge examples, received from over 180 districts, were finally accepted for entry into NIF's database.

During the course of the year, the GIAN cells, regional collaborators and student networks actively spread the word of the campaign and also succeeded in reaching out through the District Administration, Panchayats and Public bodies as well as established NGO networks. The scouting process was further strengthened through circulation of posters and announcement of competition among various institutions, stakeholders and NIF website.

### 1.1.2 The 13th Shodhyatra in Gujarat

The 13th Shodhyatra was conducted from May 1 to May 8, 2004, and covered a distance of 150 km across seventeen villages in Gujarat. Forty Shodhyatris travelled from Nana Ambla to Balachadi, a route that always kept them close to the seashore. The objectives of the Shodhyatra were to document the traditional knowledge, local innovations, to felicitate knowledge holders, especially women centenarians who are a unique resource of knowledge, and to sensitize children to biodiversity issues and local conservation methods. This last task was done by involving children in biodiversity contests that were held in different villages; 1100 children from nine schools participated in biodiversity contests and thirty four students, including sixteen girls won prizes. Fourteen veterinary healers, six fishermen and twenty four women centurions were felicitated.

# 1.1.3 14th Shodhyatra: 'Shram Yatra' in Tsunami affected Tamil Nadu

In an example of timely organizational response, the fourteenth 'Shodhyatra' was scheduled in response to the Tsunami. The journey captured the peoples' will to face and triumph over natural disasters and celebrate their spirit and innovative survival skills. It was organized from January 19 to 24, 2005 in Nagapattinam district of Tamil Nadu. Four grassroots innovators participated in the Shramyatra. Amongst other yatris were three fellows from AASTIK who were from overseas, six villagers from Junagadh and Bhavnagar Districts, four students from Gujarat Vidyapeeth and four staff members from SRISTI. Fifteen students from the Engineering College, Madurai, Tamil Nadu joined the Shram Yatra. Ten volunteers from SEVA, Madurai, constantly extended their support and did relief work and monitoring.

Mr Johl from Ludhiana sent a truckload of blankets, cloth and other materials for the affected people in Nagapattinam district. SEVA had arranged two trucks of immediate relief materials to Nagapattinam District before Shodhyatra, which included clothes, ration and medicines, distributed by five volunteers.

Honeybee network collaborator Mr P. Vivekanandan from SEVA, Madurai, planned and coordinated the efforts with the SEVA volunteers. They surveyed the villages along the sea coast in Nagapattinam district, which was one of the worst affected districts and identified those villages where major economic loss had occurred.

The Shodhyatris started from the base camp in the morning, reached the affected villages, and joined the villagers in requirement analysis, and extended their labour in reconstruction activities. While many of the Yatris committed immediate financial and material help, others proposed long-term rehabilitation plans and committed their participation in future interventions. The affected villagers recounted techniques and novel ways of coping with disaster and these were documented.

# 1.2. Organization

# 1.2.1 Establishment of new GIAN Cell

With a view to expanding the scope of GIAN networks in the South of the Country, the newly formed GIAN-Karnataka cell held its inaugural steering committee meeting on July 14, 2004. The cell is chaired by the Vice Chancellor of the Visveshwaraiah Technological

University. The steering committee members comprise the innovators, two nominees of NIF, members of PRITVI and representatives of the Management of SSIT, Tumkur. A set of projects has been assigned to the cell for technical incubation.

### 1.2.2 CSIR-NIF MoU

An MoU between CSIR and NIF was signed on June 29, 2004 at the CSIR headquarters in New Delhi. The Agreement has opened up unprecedented opportunities for the innovators to access the laboratories of CSIR, based on the recommendations of a Joint Implementation Committee. This institutional linkage envisages research collaboration on short-listed entries in herbal, energy, mechanical and food processing categories, from NIF's database. Another concrete initiative that follows from the Agreement is augmenting NIF's human resource in various technical fields. The fellows recruited under the Agreement would exclusively work on the short-listed technologies and build ties with other laboratories, participate in IPR protection and evaluate the scope for commercialization of these innovations.

### 1.2.3 Linking People's Biodiversity Register and National Register at NIF

A Memorandum of Agreement was signed with IISc, Bangalore, to facilitate the inclusion of entries from the Peoples' Biodiversity Register [PBR] into the National Register of NIF, with provisions for Prior Informed Consent [PIC]. With the existing resource constraint at NIF, it is understood that the Biodiversity Authority under the Ministry of Environment and Forests would provide the support for seeking PIC of each community, getting the public domain database translated into local languages and scrutinizing and segregating the confidential from the public domain part of the People's Knowledge Database [PKD]. The agreement with the Mala community that took place with support from IISc is a noteworthy step towards realizing NIF's objectives.

# 1.3 Achievements and rewards

#### 1.3.1 US Patents for Grassroots Innovations

During the year 2005 NIF acquired one US patent for "Adaptive Agricultural Machine" (Bullet Shanti) of Mansukhbhai Jagani, Patent No. 6854404 dated February 15, 2005.

# 1.3.2 Laurels for GIAN West

GIAN West was adjudged the joint winner of the National Award for Technology Business Incubator for the year 2003. The Award instituted by the National Science and Technology Entrepreneurship Board, DST, Govt. of India, was presented by the Hon'ble President of India, Dr A P J Abdul Kalam, on June 30, 2004, as a part of the Technology Day function in New Delhi. One of the technologies incubated by GIAN, the cotton stripper machine, developed and commercialized by Shri Mansukhbhai Patel, received an award under the category of Successful Commercialization of Indigenous Technology.

### 1.4 New Initiatives

# 1.4.1 Micro Venture Innovation Fund (MVIF)

The Micro Venture Fund continued to play a stellar role in identifying and supporting viable products for spawning business enterprises. Forty seven projects were supported by MVIF

during 2004-05 for which an amount of **Rs. 15,72,723** (Rupees fifteen lakhs, seventy two thousand seven hundred and twenty three) was sanctioned and released. Project details are enclosed in the NIF Business Development Activities section.

# 1.4.2 Geographical Information System (GIS)

The Information Technology and Dissemination [IT&D] Department at NIF started working on developing analytical database using GIS techniques. Digital Database of India for Boundaries up to District Level was prepared. Many thematic maps like distribution of beneficiaries of Micro venture Innovation Fund (MVIF), pressure-stove entries in NIF's database, Bicycle based entries, Sprayer based entries, Coconut based entries, District-wise distribution of entries for 1st, 2nd, 3rd competition, Herbal map using 3rd competition database, were prepared using GIS techniques. GIS Maps were prepared and supplied along with data tables, for the NIF portal: www.nifindia.org portal, to meet the needs of Incubation Network, SCAI, and MVIF Geographical Spread.

# 1.5 Finance and Project Grants

Apart from the MVIF disbursement of Rs 15.7 lakh for projects by NIF, a grant of approximately Rs 13.89 lakhs was sanctioned during the year for various projects developments at NIF by the National Agricultural Technology Project. NIF has received a sum of Rs.11,000 as donations; Rs.10,000 from Mahesh Patel of GIAN West and Rs.1,000 from Mr Balram Saini, an innovator from Haryana.

#### 1.6 The Third National Innovation Award Function, January 2005

His Excellency, the President of India, Dr A P J Abdul Kalam honoured the Awardees of the Third Competition. The event was held on January 5, 2005 at the Indian Institute of Management, Ahmedabad.

The Award Function was attended by over 1500 people, representing scientific institutions, NGOs, schools, and colleges apart from the innovators with their families and other stakeholders from the Honey Bee network. A total of 95 innovators and Knowledge holders received awards or certificates of appreciation under various categories: 17 national awards, 5 state awards, 43 consolation awards, five student awards in different categories, and 25 appreciation certificates.

#### 2. Review of Activities: NIF and GIANs

The National Innovation Foundation continues to play a significant national role by bringing to light thousands of unique innovations from remote parts of India, funding product development initiatives and using conventional media channels and ICT avenues to disseminate information to national and global audiences.

# 2.1 Scouting and Documentation

The Scouting and Documentation [S&D] team at NIF is the frontline department in touch with innovators and collaborators and performs the core functions of National Innovation campaign management and detailed innovation documentation, which set the stage for value addition and social diffusion. The activities are enumerated below.

### 2.1.1 Screening of Entries for the Third Competition National Awards for Innovations

A national network of experts helped the process of evaluating the short-listed entries reach new heights. After the first round of screening, the accepted entries went through a second round of verification and documentation before the Research Advisory Committee meeting. NIF had created the expert panel from Technical Institutions, Professionals and Experts. The experts' evaluation reports helped in arriving at the final selection list for the Third Competition National Awards.

# 2.1.2 Fourth National Campaign for Scouting Innovations

The spectacular 'innovation scouting success story' continues. The Fourth Biennial Campaign of NIF ended in December 2004. NIF received 16,455 innovations and Traditional Knowledge Practices from various sources. Efforts were made to enhance the quality of documentation, which has been a constant concern. During the year, communication was established with over 300 NGOs, 600 District collectors in 28 States and 37 Vice Chancellors of Agricultural Universities in twenty States.

# 2.1.3 Additional Networking for entries from (Non-grassroots) Professionals

Non-grassroots innovations from technical professionals were included this year. Compared to previous competitions, NIF received a large number of entries from individuals who are not from the grassroots unorganized sectors, and who are categorized as "Professionals". Since NIF cannot offer financial support, and to inform such innovators in advance, the campaign announcement itself included an advice to such "professionals" to contact a dedicated group i.e. Centre for Innovation, Incubation and Entrepreneurship (CIIE) housed at IIM, Ahmedabad, which supports innovations developed by the formal sector. The idea is that "professionals" can directly forward their innovation ideas to CIIE.

# 2.1.4 Memorandum of Agreement with the Mala Community

Traditional Knowledge protection received a quantum boost this year. MoA with eight traditional knowledge holders of the Mala village community was signed on June 14, 2004 between NIF and traditional knowledge holders of Mala community with the facilitation by IISc experts. This signing of MoA was endorsed by the entire Village Assembly which had one of its regular meetings just prior to the signing of the MoA. The Secretary of the Village Council endorsed the MoA on behalf of the council. This Agreement would allow the integration of their Knowledge with the National Register at NIF with Prior Informed Consent (PIC).

#### 2.1.5 Revision of Prior Informed Consent (PIC) Form

NIF continued to update critical IPR and knowledge management processes and related documents. The Prior Informed Consent [PIC] form was reviewed with feedback from innovators, collaborators, staff, experts and the framework was modified by NIF into a two-stage process. NIF follows PIC for transactions in India as well. The challenge is in terms of reaching out to all the innovators for PIC and reviewing their innovations in the light of inclusion in the National Register as well as evolving strategies to build enterprises around them.

### 2.1.6 New Partners and New Paradigms

New collaborators have helped make inroads into remote hitherto unexplored areas. This has happened partly because of media coverage in English and in vernacular languages. Many of the existing innovators and collaborators have liasoned effectively with the District Administration and also at the community level to create awareness about NIF's mission. New partnerships were initiated for scouting and documentation in Kutch, Gujarat and various districts of Karnataka and Tamil Nadu. In Maharashtra, a few innovators have mobilized entries and established links with scouts at the grassroots. As a part of the Fifth Campaign, communication was sent to 595 District Collectors and 34 Vice Chancellors of Agricultural Universities from 28 States. The process of communicating with Members of Parliament, NGOs and school students is on.

#### 2.1.7 Communication with Prasar Bharati and Doordarshan

Meetings were held with the Director General and Deputy Program Director of AIR to announce the awards of the Third Round through their national network and create awareness about the Fourth Campaign. The scope of producing a highly visual television series on innovations with Doordarshan was also pursued.

# 2.2 Value Addition Research and Development Activities [VARD]

The VARD Section at NIF, in conjunction with the BD (Business Development) department, is involved in study, analysis, redesign, testing and product optimization of handpicked innovations. Details of its activities are listed below.

# 2.2.1 Institutional Networking

In June 2003, the Indian Council of Agricultural Research (ICAR), New Delhi approved NIF as a co-coordinating Centre under the Multimedia sub-project on "Collection, Documentation and Validation of Indigenous Technical Knowledge (ITK)".

Under the National Agricultural Technology Project (NATP), NIF has identified and documented substantial indigenous technical knowledge. NIF has documented a large number of agricultural technologies, practices and plant varieties developed by the farmers during the last three years.

NIF has proposed to start a Collaborative Research Program with a network of scientists and laboratories in the private, the public and the voluntary sectors for systemic screening, evaluation and value addition, with NATP support. The documented practices have been segregated and sent to various research institutes and laboratories for validation.

For validating Indian Traditional Knowledge practices, NIF has also linked up with the following organizations:

- 1) G B Pant University of Agriculture and Technology, Uttaranchal
- 2) Indian Agricultural Research Institute, New Delhi
- 3) Kerala Agriculture University
- 4) Navsari Agriculture University
- 5) Tamil Nadu Agriculture University
- 6) University of Agricultural Sciences, G.K.V.K, Bangalore, Karnataka

A database of state-wise list of Indian scientists working on ethno-pharmacology, with their areas of specialization, was generated.

The VARD team visited the Ayurvedic facilities around Ahmedabad and JIS Kalyani College, West Bengal and networked with student representatives there. For mechanical innovations, linkages were made with experts in technological institutions such as IIT Mumbai, IIT Kanpur, IIT Delhi, IIT Guwahati, IIT Roorkee, IIT Chennai, LD Engineering College (Ahmedabad), and Nirma Institute of Technology (Ahmedabad).

An MoU for GIAN-Tech, a Technology Incubation Cell, was signed with IIT Kanpur, to develop the products of Grassroots Innovators at IIT, Kanpur.

Table 1: Projects executed under National Agricultural Technological Project (NATP) [2004-2005]

Sr. No	Name of the institute	Purpose (Validation / Verification)	Amount sanctioned (Rs)
1.	University of Agricultural Sciences, G.K.V.K, Karnataka.	Evaluation of the insecticidal properties of herbal products against diamondback moth, <i>Plutella xylostella</i> .  Evaluation of the acaricidal properties of herbal products against spider mite, <i>Tetranychus urticae</i>	1,25,000
2.	ARS, Durgapur, Rajasthan Agricultural University.	Validation of plant variety: High yielding variety of cauliflower – Ajitgarh Selection Farm machineries:  o Multicrop thresher. o Groundnut digger. Crop protection: o Control of powdery mildew in Methi (Fenugreek) using herbal formulation and other treatments. Organic pest control in pulse. Organic pest control in Karela (Bitter gourd)	3,40,400
3.	IARI (Indian Agricultural Research Institute), New Delhi.	Efficacy testing of ten herbal formulations for controlling different pests/insects like heliothis, prodenia and other sucking pests in crop plants during Rabi, 2004-05	58,000
4.	G. B. Pant University of Agriculture, Pantnagar.	Testing of five products (decoctions of different plant species) for their efficacy against different diseases / pests in crops like chickpea, pea and/or lentil during Rabi – 2004-05	75,000
5.	G. B. University of Agriculture, Pantnagar.	Testing of 11 natural dyes	1,650
6.	N. M. College of Agriculture, Navsari Agricultural University.	Testing of 10 formulations against pest complex of okra and cotton i.e. sucking as well as borer pests and comparing their bio-efficacy against standard pesticidal check	2,00,000

7.	Hemchandracha	Validation of 14 veterinary practices for	81,000
	rya North	treatment of diarrhoea in animals and the	
	Gujarat	antimicrobial activities of the compounds /	
	University,	solutions provided against common	
	Patan.	pathogenic bacteria, fungi and yeast.	
		Total amount sanctioned	Rs 8,81,050

The following engineering product innovations were supported through the VARD section, by providing financial help, technical assistance for design, testing and manpower support.

Table 2: Engineering innovations related projects supported from VARD fund (April 1, 2004-March 31, 2005)

No.	Project title	Date	Innovator/Organization (to whom payment was made)	Amount (Rs)	
1	Preliminary testing and video shooting of septic baffle system	31/05/2004	Mr Rajesh T R, Kerala	1650	
2	Registration fee for attending training course	08/07/2004	Electrical Research and development Assoc. Baroda, Gujarat	1650	
3	Prototype development of tube and tyre-less bicycle	05/11/2004	Mr Swapnil Sharma, Uttar Pradesh	2200	
4	Prototype development of shoe to walk on water	03/12/2004	Mr Dwarka Prasad Chaurasiya, Uttar Pradesh	1000	Formatted: Swedish (Sweden)
5	Prototype development of hydraulic prime mover	03/12/2004	Mr Naushad K T, Kerala	2300	
6	Organizing competition during TEQNIX organized by LD College of Engineering, Ahmedabad	23/02/2005	LD College of Engineering Alumni Association, Ahmedabad, Gujarat	17000	
7	Incubation network for milking machine, rain gun, natural water cooler, garlic peeling machine and lemon cutting machine	04/03/2005	Mr Dayal Singh	45400	
8	Prototype development of fodder cutter	15/03/2005	Mr Chandrapal Singh, Uttar Pradesh	8000	Formatted: Swedish (Sweden)
9	Prototype development of bicycle pump	18/03/2005	Mr Vikram Rathor, Andhra Pradesh	8000	
			Total	87200	

#### 2.3 **Business Development Activities**

The crucial last mile in the "innovation to enterprise" value chain is handled by the Business Development department. As part of its work, the Business Development team actively pursues cases for technology licensing and scouting of entrepreneurs to take up those grassroots innovations that show promising market potential. It has pursued various project proposals for funding under MVIF. It has also continuously given support to the GIANs and other collaborators in the Honey Bee network. The major initiatives are detailed below.

# 2.3.1 Technology Commercialization Initiative

#### 1. Natural Water Cooler

This innovation by Arvindbhai Patel was licensed in collaboration with GIAN-W to an entrepreneur based in Ahmedabad. The non-exclusive manufacturing and marketing rights for the states of Gujarat and Rajasthan were transferred to M/s. Nature Products, Ahmedabad, Gujarat, with a proviso for payment of royalty of two and a half per cent of sales for a period of five years.

# 2. Unique Coupling Device

This innovative device, developed by R K Debgupta can be integrated into automobiles, pumps, generators as couplers in power transmission system or any other equipment where energy is transferred from a driver shaft to a driven shaft. The product has been licensed to Dipak Das and Company in Guwahati.

# 3. Zero Head Water Turbine

This device developed by Mr Nripen Kalita, Assam, generates electrical energy from flowing river water and simultaneously pumps the water for irrigation or similar purposes. The technology was transferred to an entrepreneur, Mr Kailash Agarwal of Tinsukia, for an upfront payment and Rs.1,000 per piece sold. The Entrepreneur also contributed a sum of Rs. 20,000 towards Innovation Promotion Fund of NIF.

### 4. Cassava Peeling Machine

The cassava peeling machine, conceived by Shri. Uddhab Kumar Bharali is made of stainless steel and food grade rubber components. It has a peeling capacity of 5-6 kg per minute. The exclusive all India manufacturing and marketing rights for the technology were transferred to Subash Deka of Guwahati, Assam.

### 5. Improved Treadle Printing Machine

This innovative, low-cost treadle printing press, re-engineered by Satish Kamnikar, delivering quality printing output, can be used to print on major substrates ranging from paper to plastic. NIF facilitated the marketing franchise through an entrepreneur, Mr Ishan Baruah, for an upfront fee and four percent royalty to NIF. The innovator has already sold five machines in North Eastern India through this franchisee.

### 2.3.2 Innovation Success Stories

# 1. Garlic Peeling Machine and Lemon Cutting Machine

The Garlic peeling machine, developed by Mr M. Nagarajan of Usilampatti, Madurai, is used in pickle industry and in the manufacture of herbal formulations. Twenty of these machines have been sold in South India. NIF BD cell also assisted the innovator in selling the unit to Perfect Foods, Pakistan and in exploring exports and franchising in United States. The other innovation, a lemon cutting machine, has also achieved modest success in the market.

# 2. Milking Machine

This is a manually operated, low cost milking machine developed by Mr Raghava Gowda of Karnataka. The product has been receiving attention from the rural community and many

purchase queries have been received. These have been forwarded by NIF to the innovator, who is mass manufacturing and selling them.

# 3. Remote Operated Device for Fire Crackers

This device for safe lighting of fire-crackers was developed by Mr Balram Singh Saini of Haryana. It was identified by Mr Bharatbhai Vyas for a new application to be used during occasions such as marriage, festivals etc. He has signed an agreement to acquire National marketing rights of this technology.

### 4. Arecanut Dehusking Machine

This is an Arecanut husk removing machine developed by Mr Narasimha Bhandari of Karnataka. NIF BD cell helped the innovator in selling one unit to Mr Edwin Tan, Choon Hong & Co Pte. Ltd., Singapore.

Market research and documentation activities were conducted for the following product portfolios:

- Portfolio for Bicycle Rickshaw Technologies (Jabbar Gear, Kanakdas Bicycle, Rickshaw run on compressed air, Shock Absorber for Cycle Rickshaw).
- Portfolio for Areca Nut Peeler & Food-processing Technologies.
- Portfolio for Mosquito Repellents (Lina Talukdar and others).
- Portfolio for Natural Dye.

# 2.3.3 Website Development and Development of E-catalogue

The Business Development team felt the need to facilitate commercialization of grassroots innovations, through an online business portal. As a result of this requirement, the BD website www.nifindia.org/bd was developed and a total of 62 technology handouts and e-brochures prepared, covering 18 product categories.

# Posting on Technology/Trade and Business portal

Apart from the BD site at www.nifindia.org, the following portals were explored for posting technologies online:

- o www.birchbob.com
- o www.dir.vorras.net
- o www.alibaba.com
- o www.asean-trade.com
- o www.foodproceesing\_technology.com

### 2.3.4 Partnering with Voluntary Sector

In its endeavourer to reach out and create synergy with other voluntary organizations, NIF has joined hands with CAPART, which works under the aegis of the Ministry of Rural Development. Under the Young Professional Scheme, one young professional has been placed with the NIF Business Development section.

# 2.3.5 Student activities

A total of thirty SCAI chapters have been set up at leading educational institutes to facilitate scouting of innovations, conducting market research and grooming potential entrepreneurs. These clubs have been formed in Management Institutes, Technical/Engineering Institutes

and Agriculture Institutes all over India. A Business plan competition 'DISHA' was also launched with the assistance of these clubs.

# **DISHA: National Business Plan Competition**

DISHA - 2004, a National Business plan competition was a grand success with the participation of over 500 teams from around the country. This online competition, was based on 125 innovations from NIF database representing areas of traditional knowledge, herbal formulation, plant variety, mechanical engineering.

A total of 557 teams from 77 Business schools and two IITs from 23 states of India registered online . Thirty seven projects were submitted at the end of the competition cycle. The team from Fore School of Management, Delhi who prepared a business plan for "Motor Protection Device" was the winner for DISHA 2004, North India. The team from National Institute of Bank Management, Pune with the business plan for "Garlic Peeling Machine" was the winner for DISHA 2004, Rest of India.

# 2.3.6 Cross-regional Application of Innovations

NIF and the GIANs recognized the vast potential of cross-regional application of technologies and initiated projects in that direction. Initially this initiative was done on a pilot basis for six months for the innovations shown in Table 3.

Table 3: Cross-regional application of innovations

Technology	Innovator and Domicile State	Areas for Cross-regional Application	Project Undertaken by
Milking Machine	Mr V.A. Johnny, Kerala.	Maharashtra	GIAN-W
Milking Machine	Mr Raghava Gowda, Karnataka.	National	NIF North-East cell, GIAN-W
Incense Stick Making Machine	Mr Usman Shekhani, Chattisgarh.	North Eastern States, MP, Chattisgarh	NIF, NIF North-East cell, GIAN-W
Tea Making Machine	Mr Ashok Dhiman, Haryana.	National	NIF, GIAN-W and NIF North-East cell,
Herbal Fragrances	Narayana Karki, Assam	National	NIF
Egg Incubator	Kerala	National	NIF North-East cell
Exercise cum Washing Machine	Ms Remya Jose Kerala	National Market and International Market	GIAN-W
Tile Making Machine	Mr Sukhranjan Mistri, Uttaranchal	National (particularly with low income segment)	GIAN-W
Groundnut Digger	Mr Yusuf Khan Rajasthan	Gujarat, (other states like TN, AP etc)	GIAN-W
Hair Shaver for Sheep and / Horse	Mr . Mohammad. Idris UP	North India	GIAN-W

#### 2.3.7 Micro Venture Innovation Fund (MVIF)

Forty seven projects were supported under MVIF in the year 2004-05 for which an amount of Rs. 15,72,723 (Rupees fifteen lakhs seventy two thousand seven hundred and twenty three) was sanctioned and disbursed. These 47 projects cover a wide range of categories such as Utility, Energy, Farm Machinery, General Machinery, Transport, Agro Forestry, and Herbal formulation.

Table 4: Projects supported from MVIF in the year 2004-05

No.	Innovation Title	Innovator Name	Agency	Date of Sanction	Disbursed Amount (Rs.)	
1	Interlocking brick manufacturing unit	Umesh Chandra Sharma	NIF	23/6/2004	24753	
2	Bicycle Hoe	Gopal Bhise	GIAN-W	13/7/2004	15000	
3	Wood cutting machine	Karunakant Nath	GIAN-NE	20/7/2004	58000	
4	Kerosene Gas Stove I, Improved Pump less Stove, Kerosene Stove II, Hydrogen Powered Stove	Niranjan Prasad Sharma, Sameerul Hasan Liyaquati, Sarfuddin Amanuddinn Kazi, Vyasji Mishra	GIAN-W	18/8/2004	2300	
5	Kerosene Gas Stove I, Improved Pump less Stove, Kerosene Stove II Hydrogen Powered Stove	Niranjan Prasad Sharma, Sameerul Hasan Liyaquati, Sarfuddin Amanuddinn Kazi, Vyasji Mishra	GIAN-N	18/8/2004	5500	
6	Motorized Kite String Winder	Paresh Panchal	GIAN-W	18/8/2004	115000	
7	Amphibious Bicycle	Siadullah	NIF	18/8/2004	16000	
8	Rotary Huller	A N Manoharan	NIF	18/8/2004	14500	
9	Silkworm Tray & Effective Utility	S M Mangali	NIF	18/8/2004	25000	
10	Multi purpose cycle for rural market	Mr Kamruddin	GIAN North	18/8/2004	10000	
11	Motor coil winding machine	Mr Kailash Shrivastava	GIAN North	18/8/2004	12000	
12	Lemon cutting machine	Mr M Nagarajan	GIAN North	18/8/2004	150000	
13	Improved Sickle	Kishorebhai Bhaegawa	GIAN-W	18/8/2004	6600	
14	Septic Tank Baffle System	Rajesh T.R.	NIF	18/8/2004	9000	
15	Automatic Engine Stopper	Tukaram Verma	NIF	18/8/2004	1800	
16	Stove cum Water Heater	Jyoti Ravi Shankar	SSIT	18/8/2004	4500	
17	Trench Digger	Natulal & Radhayshyam	GIAN-N	25/8/2004	14823	
18	Horse Shaver	Idris	GIAN-N	25/8/2004	20000	Deleted: h & Kab
19	Tile Making Machine	Sukhranjan Mistry	GAIN-N	25/8/2004	4500	
20	Pine Needle as Fuel	Nand Kishore Upadhyay	GIAN-N	25/8/2004	5000	
21	Bicycle Driven Multipurpose Agri. Device	Dhirajlal Thaummar	GIAN-W	25/8/2004	12750	
22	Innovative Tong	Arvindbhai Patel	GIAN-W	25/8/2004	20500	1

23	Jabbar Gear	Sheikh Jabbar	GIAN-W	25/8/2004	23000
24	Bicycle Sprayer	Manshukh Jagani	GIAN-W	6/9/2004	16000
25	Jute Match Stick	Uttam Patil	GIAN-W	6/9/2004	10000
26	Double Action Signal System	Nageshwar Pandit	NIF	7/9/2004	2850
27	Treadle Printing Machine	Satish Deb	NIF	30/9/2004	14000
28	Small Efficient Diesel Engine	Manshukh Bhai Suthar	GIAN-W	25/10/2004	25100
29	Bamboo Stick Maker	Usmann Shekhani	NIF	25/10/2004	24000
30	Wind Turbine Operator Water Pump (Phase 1)	Mohd. Mehtar Hussain	NIF	1/11/2004	15000
31	Guru Kripa Multipurpose Harrow	Goraknath Kelba Kaspate	GIAN-W	2/11/2004	8000
32	Improved Fodder Cutter	Chandrapal Singh	NIF	5/11/2004	7000
33	Motorized String Winder	Paresh Panchal	GIAN-W	9/11/2004	600000
34	Low Cost Film Projector	Harilal Vishwarma	GIAN-N	24/11/2004	20000
	Innovative Key Way				
35	Making	Vijay Shanta Ram			
	Fixture	Gorkhae	GIAN-W	2/12/2004	12000
36	Automatic Parking Light	Ashok Kr. Sharma	GIAN-N	16/12/2004	10000
37	Fuel Saving Tandoor	S. Sohan Singh	GIAN-N	16/12/2004	10000
38	Modified Solar Cooker	Rajesh Deshmukh	GIAN-N	16/12/2004	10000
39	3 in 1 Khurpa	Rajbir Singh	GIAN-N	16/12/2004	5000
40	Cold Lamination Sheet	Swayampurna (NGO)	NIF	16/12/2004	60000
41	Multifunctional Starter for Electric Motor	Roshanlal Vishakarma	GIAN-N	8/2/2005	10000
42	Wind Turbine Water Operated Pump (Phase 2)	Mehtar Hussain	NIF	9/2/2005	38500
43	Treadle Printing Machine	Satish Deb	NIF	15/3/2005	5000
44	Wood Apple Tea	Subal Karmakar	NIF	18/3/2005	19200
45	Jyoti Herbal Hair Oil	Velsamma Thomas	SRISTI	29/3/2005	3000
46	Motor Protection Device	Bharat Kamble	NIF	30/3/2005	75000
47	Kerosene Gas Stove	Safrudin Kazi	GIAN-W	31/3/2005	2547
	Total				1572723

# 2.4 Activities Related to Intellectual Property Rights [IPR]

Protection of Intellectual property for grassroots innovations is another priority area for NIF. In the year 2004-2005, NIF filed fourteen patent applications (see Table 5). The IPR cell at NIF has made submissions to nine examination reports issued by the various patent offices. In the year 2004-05, NIF acquired one US patent for a Grassroots Innovator.

The IPR Cell at NIF has initiated documentation of Non-Disclosure Agreements, Sale Deeds, MoU, Disclaimers and other legal documentations as and when there is a need. Legal and IPR prosecution support was extended to all incubating partners and CIIE at IIM-A.

In the year 2005, four students from different law colleges sought internship with NIF. Internship with IPR cell predominantly involves students conducting Prior Art Searches for various technologies within NIF's database, thus exposing the students to patent applications.

Table 5: List of patent applications made during April 2004-March 2005

No.	Title & Patent No.	Innovator	Filing Agency, Law Firm
1	Zero head turbine - 224/KOL/04	Nripen Kalita	NIF
2	Cycle operated water lifting pump - 371/CHE/2004	Vikram Rathore	Surana & Surana
3	Rotary Huller - 434/CHE/2004	A N Manoharan	Surana & Surana
4	LPG Gas Conversion Kit - 433/CHE/2004	A N Manoharan	Surana & Surana
5	Tile Making Machine - 995/Del/2004	Sukhranjan Mistri	GIAN North, Anand & Anand
6	Tea making machine -994/Del/2004	Ashok Kumar Dhiman	GIAN North, Anand & Anand
7	Lemon Cutting Machine - 807/CHE/2004	M Nagarajan	Surana & Surana
8	An effluent filtering device - 806/CHE/2004	Rajesh T R	Surana & Surana
9	Simple Portable hand pounding machine - 52/KOL/2004	Uddhab Kumar Bharali	NIF
10	A nuts digger cum separator device - 1806/del/04	Mohd. Yusuf Khan	GIAN North Anand & Anand
11	An improved wood cutting machine (Directly by innovator)	Karunakanth Nath	NIF
12	Device for preventing snoring - 1375/CHE/2004	E K Abdul Rahman	Surana & Surana
13	Fixture to hold cylindrical objects.	Vijay Shantaram G	Surana & Surana
14	Skin (Garlic) Peeling Machine - 1374/CHE/2004	M Nagarajan	Surana & Surana

Table 6: List of new design applications made during 2004-05 under Patent Assistance

No.	Title & Application No.	Innovator	Filed Through
1	Tong	Vinod Kumar	GIAN -West
2	Relay	Ashish D Shah	GIAN -West
3	Relay	Ashish D Shah	GIAN -West

# 2.5 Information Technology and Dissemination [IT&D] Activities

# 2.5.1 Document Management System and Domain Maintenance

Since August 2004, approximately 5000 pages of scanned documents have been entered into the database. The following sites are maintained and updated by NIF.

- www.nifindia.org
- www.nif.org.in
- www.gian.org
- www.indiainnovates.com
- www.scai.org.in

The following domain names are reserved by NIF and point to one of the sites of the network.

- www.creativeindia.org
- www.indiainnovates.net
- www.indiainnovates.org
- www.innovateindia.org
- www.indiainnovate.com

#### 2.5.2 Entries in Electronic Database

A total of 9627 individual entries, covering 13274 innovations, of the third competition, were entered into the electronic database of NIF (National Register and Reference database); 4541 individual entries of the Fourth competition, incorporating 6405 innovations, were also entered. More innovations will be entered in the coming year.

### 2.5.3 Software Development

The following IT-enabled enterprise solutions were developed with the help of CRANTI Technologies.

**BD** website: A dedicated NIF business development portal was executed with Content development by BD department, while the technical support was extended by IT&D.

MIS: NIF Sanchalak: An integrated MIS system was conceptualized and developed by interns from IIIT, Hyderabad. The system captures data across process-flow in each function and generates reports for all levels of users. It has been integrated with all databases used previously by NIF i.e. National Register, Inward-outward etc.

# 2.5.4 IT Support for the Third National Award Function

Smooth 24x7 IT support for the Award Function was another area of work. Coordination of logistics, online and offline registrations, scheduling of events for hundreds of innovators, visitors and dignitaries and deploying IT-enabled processes and information flow during the Award Function was another major milestone.

#### 2.5.5 Dissemination Activities

- Multimedia CDs: A total of 8,078 multimedia CDs were distributed on different
  occasions and sent to district collectors, NGOs and Vice Chancellors of Universities
  for dissemination of fourth campaign. CDs were also distributed among students to
  create awareness about the campaign and lateral learning.
- **Building Linkages**: Drishtee Foundation is scouting for the fifth campaign through kiosks set up in Madhya Pradesh with technical support provided by NIF.
- **Posters:** More than 200 posters in English and Hindi representing the third competition's award winning innovations were printed.

# 2.5.6 Participation in Exhibitions and Fairs

• SPARX 2004 was a symposium organized by the students of L D College of Engineering. Five innovations from NIF were taken up by students for brainstorming and developing technical solutions.

- "INSIGHT", the marketing event organized by students at IIM-A, was the platform in which NIF demonstrated the prototypes of some innovations. User feedback and market response about the products were collated.
- SAATVIK, the food festival, was organized by SRISTI to exhibit various kinds of
  indigenous recipes and organic food. NIF exhibited its unique innovations in order
  to get market feed back. More than 30 innovative tongs were sold during the festival.
- In an exhibition organized by AAKAR Expocomm Pvt. Ltd, 21 prototypes of innovations were exhibited to get feedback from the market players. A special demonstration was done for the "motorized kite rope winder" developed by Pareshbhai Panchal and more than 150 units were sold. During the event, linkages were built with Laghu Udyog Bharati, an association of small-scale industries and a database of small-scale industries was generated to facilitate technical benchmarking and business incubation.
- A total of 37 technologies short-listed on the basis of market potential were showcased through posters, prototypes (for a few) and pamphlets.
- The WARDHA WARDHAN exhibition was organized by Magan Sangrahalaya Samiti, Wardha in March 2005 with the aim of recognizing, nurturing and protecting traditional Indian expertise in the context of sustainable development of India. It provided a common platform for rural technology experts, technicians, innovators and technopreneurs to interact and develop business opportunities. Prototypes of a few technologies were displayed by NIF in the exhibition. Participation in this event helped in identification of new business opportunities, addition of new information for NIF database, on the spot analysis of the innovations for value addition and order collection for various products.
- MINDBEND is a symposium organized every year by SVNIT, Surat in Gujarat.
  During this, a student competition "SAMAJ" is held, where students are invited to
  propose solutions to a few selected problems encountered by farmers and artisans.
  This year, NIF VARD team identified the problem areas in a few technologies that
  offered scope for improvement, posed them as questions in the competition and
  collated the student responses.
- A technology clearing house, a first if its kind, was organized at IIM-A to coincide with the 'Third National Award for Grassroots Technology Innovation and Traditional Knowledge' from January 5-7, 2005. Industry representatives were invited to see the prototypes of technological innovation, interact with innovators and participate in the workshop held on the occasion.

Networking with CII, New Delhi was strengthened. As an outcome of that, NIF put up its stall in two major exhibitions:

- TECHNOVATION 2005 (with South Africa) held at Pragati Maidan, New Delhi from Febuary 8 12, 2005. NIF showcased 41 innovations.
- Technology Summit (with Russia) at Hotel Vasant, New Delhi, NIF showcased twenty technologies that could be commercialized. There were over 50,000 visitors in three days.

NIF has forged linkages with The Indus Entrepreneurs (TIE) for scouting entrepreneurs through their three chapters in northern India.

# 2.6 GIAN Activities

### 2.6.1 GIAN North

#### a. Resource Mobilization

Land for GIAN-North Building has been allotted by DST, Rajasthan in Science Park, Shastri Nagar, Jaipur. A building plan has been prepared by PWD, Rajasthan for GIAN-North. The interest on Corpus of Rs. 50 lakhs for the FY 2003-04 has been received from Government of Rajasthan to meet the administrative expenses of GIAN-North.

# b. Value Addition Activities and Product Development

Product development is a key concern for NIF. GIAN North has been working on several innovations for product development, such as Remote Operated Device for safe firing of crackers, Tea Making Machine and Low cost Film Projector. A prototype of the remote operated device for safe firing of crackers was demonstrated to deputy controller of explosives at Jaipur and then sent to Chief Controller of Explosives, Nagpur for inputs.

### c. Grassroots Technologies for Social Benefit

GIAN-N has identified three technologies from other states with social benefit for replication in rural Rajasthan. These technologies address the problems of water scarcity, drudgery of women etc., and are most relevant to Rajasthan.

The three innovations are:

- Innovative Pulley with Lever for Water Lifting disseminated with the help of Dept of Science & Technology (Rajasthan) and implemented through local NGOs of different regions.
- ii. Water Tank for Animal
  - The innovator himself has diffused this technology to the villages near Udaipur.
- iii. **Manual Tile Making Machine** was diffused with the help of Kumaon Seva Samiti and its associated Self help groups.

# d. Commercialization

The following technologies were pursued actively by involving entrepreneurs and innovators interested in becoming future entrepreneurs:

- i. **Multi-crop Thresher** by Mr Madan Lal Kumhavat of Danta, Rajasthan.
- Trench Cutting Machine by Nathulal Jangid and Radhashyam Taylor of Sikar, Rajasthan.
- iii. Ground Nut Digger cum Separator by Mr Yusuf Khan, from Sikar.
- iv. Remote operated fire cracking device of Shri. Balram Saini, Haryana with M/s Ambika Fire Cracker Traders, Raipur, Ahmedabad.

# e. Enterprise Incubation Cell

Enterprise incubation has been proposed at Aravali Institute of Management, Jodhpur in association with Sena Inc., USA. This cell will take up innovations from GIAN-North region for incubation. It is proposed that a memorandum of understanding be signed after the groundwork has been completed.

#### f. Exhibitions, Workshops and Technical Presentations

 Participation in the exposition and discussion on grassroots innovations at Kisan Mela, Punjab Agricultural University, Ludhiana in September 2004 to explore the possibilities of cross-regional replications of technologies.

- A presentation at Aravali Institute of Management, Jodhpur in September 2004 and a press conference on Media Award - 2005 at the Pink City Club, Jaipur in September 2004.
- Innovators' and collaborators' meet during the Seventh Board meeting at Jaipur in September 2004.
- A presentation to Agricultural scientists at Agricultural Research Station, Rajasthan Agricultural University, Jaipur was made in October 2004.
- A presentation on GIAN-North activities to KCNIT, Banda at GIAN North office in October 2004.
- Participation in State Grassroots innovators award, Sikar in October 2004.
- Participation in DISHA-North at Indian Institute of Foreign Trade, Delhi in December 2004.
- Participation in FABLABS workshop at IIT, Kanpur in December 2004.
- Meeting with the Regional Officers, DST, Rajasthan at Jaipur in February 2005.
- Participation in the exhibition organized by GB Pant Institute of Social Sciences, Allahabad in March 2005.
- A presentation on GIAN-North activities and future tie-up activities at Centre for Entrepreneurial Leadership (CEL) of BITS Pilani during their national event "Ideas for Rural India" in March 2005.

# g. Announcements

Bhoruka Charitable Trust, Jaipur in association with GIAN-North has instituted a media award for best grassroots innovation reporting in the area where GIAN-North is operating. The award will be given to journalists in print and electronic media and reporting can be in English, Hindi or any northern Indian regional language.

GIAN (North) conducted three Board meetings in FY 2004 - 2005. Experts from fields of science & technology, education, social sector, industry and government etc. were invited to share their views on the work.

# 2.6.2 GIAN West

GIAN West continued to carry out projects under MVIF and also facilitated IPR Protection, Technology Transfer and Incubation of innovations.

- GIAN West was adjudged the joint winner of the National Award for Technology Business Incubation for the year 2003. The award carried a cash prize of Rupees One Lakh along with a trophy. The award was formally presented by the Hon'ble President of India, Dr A P J Abdul Kalam, on June 30, 2004 as part of the Technology Day function in New Delhi.
- One of the technologies incubated by GIAN, the Cotton Stripper machine, developed and commercialized by Shri Mansukhbhai Patel, was awarded a prize by the National Research Development Corporation under the category of Successful Commercialization of Indigenous Technology at the Technology Day function held on June 30, 2004 in New Delhi.
- Technical Presentations were made to members of the following agencies on important technologies, that could have applications in respective region: Electric Research Development Agency (ERDA) in Vadodara, Industry associations in Bicycle & Sewing Machine, R&D Center in Ludhiana, members of Entrepreneurship Development Training Programme organized by the Department of Management

Studies, Haryana Agriculture University, Hissar, members of Karnataka Chambers of Commerce and Industries, Hubli and members of Modinagar Industries Association, Ghaziabad.

#### 2.6.3 GIAN Cell - Karnataka

The young Karnataka GIAN cell was involved in following activities:

- Technical documentation and evaluation of grassroots innovations identified by NIF
- Technology incubation including assisting the innovator in the re-design and upgradation of innovations
- Process development, filing of patents, and development of business plans for commercialization of innovations
- Conducting Entrepreneurship Development training program for educational institute faculty to facilitate incubation activities.

# Projects handled by the Cell

The GIAN Cell has worked on short-listed innovations assigned under Project-based funding from NIF. The grassroots innovations were documented and evaluated by the Sri Siddhartha Institute of Technology.

The details of the projects are given in the following table.

Table 7: Projects executed with funding received from NIF

No.	Activity	Project Name
1	Markala ara	1.Exhibition & Workshop for Innovators and
1	Workshop	Faculty of Engineering. & Science
2	Projects Developed	1.Plastic sealer 2.Milking machine 3.Two-in-one stove
3	Products documented	1.Milking machine 2.Rain-gun 3.Vinayak Hydel pump 4.Sugarcane Stub Thrasher 5.Rotating wind/wave absorber 6.Biogas motorbike 7.Leg operated coconut husking machine 8.Bhoomidan energy producer 9.Septic tank baffle system 10.Offline flash system 11.Hydel pump-cum energy generation
4	Projects for national dissemination	1.Milking machine 2.Two-in-one stove
5	Ongoing projects	1.Two-in-one stove 2.PVC Septic Baffle system 3.Low energy water drawing device 4.Extraction of energy from wind and ocean waves

6	Products for Commercialization	1.Mobile-mobile-charger 2.Incense Stick cutter 3.Areca nut peeling machine 4.Milking machine 5.Three-in-one stove
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# 3. Dialogue on Policy Matters

One of NIF's mandates is the removal of policy gaps that hinder creativity and reduce the efficacy of grassroots innovations and Traditional Knowledge. The debate about whether an individual or group can represent the intellectual property of Traditional Knowledge practices that have been developed by scores of individuals over generations continues. Then there is the question of what knowledge is public and what is private. NIF is working within the intricacies of these debates and is now trying to move towards a more holistic solution which would work keeping in mind macro as well as micro objectives.

Over the years, and as a result of the national campaigns, the aspect of scouting and awarding Traditional Knowledge has emerged. NIF has come up with the mandate of appreciating Traditional Knowledge holders but the main constraint remains proper validation of these thousands of practices.

At times, it is not possible to give monetary incentives to thousands of individual TK practices. Options are being explored, such as providing group Insurance in order to provide a small but useful safeguard to these traditional knowledge holders. The idea is still in the formulation stage, and there is a need for insurance companies and other agencies to partner the cause. There have also been other methods of providing non-monetary benefits like encouraging the participation of healers from various parts of India in regional workshops and in local and national conventions.

### 4. Third National Innovation Awards Function

The Third Innovation Awards Function of NIF was held on January 5, 2005, at IIM Ahmedabad. The award winners were declared after a process of scrutiny undertaken by NIF and technical experts from various technology institutes and national R&D bodies. His Excellency, the President of India, Dr A.P.J. Abdul Kalam graciously agreed to be the Guest of Honour for the second consecutive year, reaffirming his commitment to facilitating the process of transforming India into an innovative society.

The Award Function was a multifaceted celebration, bringing together ignited minds from remote parts of the country together, united by a passion for innovation. The innovators got an opportunity to share their concerns and initiate dialogue with the invitees. The award function was a platform for knowledge sharing between formal and informal knowledge sectors, with both innovators and experts learning from each other's contexts. This unprecedented exposure was an empowering experience for the innovators which helped develop a new confidence to pursue further innovations and entrepreneurial roles.

Seventy eight innovators and knowledge holders received awards under various categories. The National Awards for innovations were conferred on nineteen people. In addition to these, five state level awards, five student awards and forty four consolation prizes, apart from certain special category awards, were conferred. Scouts from six different states, viz.

Maharashtra, Rajasthan, Assam, Bihar, Gujarat and Karnataka were rewarded. Twenty traditional knowledge holders in the field of herbal knowledge were recognized and appreciated. Prizes worth over sixteen lakhs were given for innovations in categories such as farm machinery, energy, utility and general machinery, agricultural practices, livestock management etc.

Dr R A Mashelkar, Chairperson, NIF, in his welcome address, recalled the message which the Honourable President had delivered on the eve of the second award function, that "Innovation cannot remain only as a subject of curiosity, but must be spread and utilized by the entire country". Dr Mashelkar highlighted the continued efforts being made in this direction by NIF through networking with various bodies and technology institutions. The Honourable President emphasized the importance of recognizing the innovators through such Award functions. "Celebration of innovation is also celebration of knowledge," he said. He stressed that creativity is a result of an educational process, and is achieved by learning. Therefore, "learning uses creativity, creativity leads to thinking, thinking provides knowledge and knowledge makes one feel great!!" For him, encouraging grassroots innovation was more than just an annual event, it was a trigger to spawn a wider social movement. It is not just about encouraging creative minds who deliver local solutions but about triggering a wave to create a modern knowledge society with roots in every village.

The Gujarat Chief Minister Shri Narendra Modi visited the innovation exhibition on January 6, 2005 and showed interest in the technical innovations which had scope for application in Gujarat. A business-clearing house was organized in a separate enclosure at the venue, on 6 January, 2005, with the help of GIAN and SRISTI. The objective was to link innovation, investment and enterprise. An entrepreneur from Mumbai was interested in commercializing the Modified Tricycle Rickshaw developed by Sheikh Jabbar. One leading distributor for drip irrigation systems in the state of Gujarat wanted to commercialize various herbal pesticides. A senior official from the State Bank of India identified the innovator of the Motor Protection Device as a candidate whom they could support with training and funds to help him develop into an entrepreneur. An expatriate Indian from Kenya identified the potential of the low cost milking machine in Kenya and was interested in the transfer of technology. The Cycle-operated pump and the Prime Mover were identified for their potential application along the Narmada Canal in Gujarat.

Several group discussions were organized with the different stakeholders including grassroots innovators, traditional knowledge holders, development professionals, scouts and academicians to reflect on the concerns of grassroots innovation and traditional knowledge and to discuss ways of strengthening the Honey Bee Network.

An Award Book was published to mark the occasion. All entries that had received awards were presented systematically with details on the innovators as well as the innovations. The documentation is sensitive to the individual struggles of the innovators and salutes their perseverance and the support of those who facilitated the innovation process. The detailed information provided in the Award book provides a platform for exploring nationwide business opportunities to augment grassroots technologies and for creating equitable benefit sharing models.

# 5. Acknowledgements

We are deeply grateful to our innovators, scouts, volunteers, collaborators from all over India and abroad, Honeybee and other networks, SRISTI, GIANS, RAC members, IIMA and hundreds of technology institutes, organizations and individuals for their extended support and cooperation during this historic innovation movement powered by ignited minds.

#### 6. Join Us

Come forward and join NIF in this innovation movement. Together let us build the value chain to convert innovations into sharp products and successful enterprise. With your passion and expertise, you can assist us in the following areas:

# Scouting and Documentation:

You could help us in identifying and documenting the work of local grassroots innovators, traditional knowledge holders and in linking NIF with entrepreneurs who may be interested in setting up business ventures around chosen innovations.

#### Value addition:

As a technical expert, industry professional or student, you could assist us in adding value to innovations towards technology incubation.

# Angel investors And Entrepreneurs:

As an investor, you could choose to fund the enterprises built around innovations or as an entrepreneur, you could take up innovations from our product portfolio for developing new businesses.

### *Information dissemination:*

You could help us in diffusion of innovation details, conduct events, use online and offline resources to increase awareness of innovations that could change lives all over the country.

# **Building Linkages:**

By virtue of your position, or professional network, you could help us build linkages with agencies, industry clusters, policy makers and activists, who wish to facilitate this movement towards making India a knowledge society.

# Mentoring Innovators:

As an industry expert or technical specialist, you could be a mentor and extend professional expertise for technology incubation and value engineering of grassroots innovations.

Please feel free to write, call, fax or email us. We will get back to you.

# 7. AUDITORS' REPORT AND BALANCE SHEET

AUDITORS' REPORT TO THE DEPUTY CHARITY COMMISSIONER, AHMEDABAD REGARDING AUDIT OF ACCOUNTS OF NATIONAL INNOVATION FOUNDATION-INDIA FOR THE YEAR ENDED 31-03-2005.

#### Regn.No.F/7412/Ahmedabad

1. We have audited the attached Balance Sheet of NATIONAL INNOVATION FOUNDATION-INDIA as at 31st March 2005 and the Income and Expenditure Account for the year ended that date annexed thereto. These financial statements are

the responsibility of the Trust's management. Our responsibility is to express an opinion on these financial statements based on our audit.

- We conducted our audit in accordance with auditing standards generally accepted in India. Those standards require that we plan the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statements presentation. We believe that our audit provides a reasonable basis for our opinion.
- 3. The Accounts are maintained regularly and in accordance with the provisions of the Act and the rules.
- 4. Receipts and disbursements are properly and correctly shown in the accounts.
- 5. On the date of the audit, the vouchers in the custody are in agreement with accounts.
- 6. Books, Deeds, Accounts, vouchers and other documents and records required by us were produced.
- 7. An inventory, certified by the Trustee of the moveable of the trust has been maintained.
- 8. The Finance-cum-Administrative Officer Mr Hozefa Natalwala appeared before us and furnished the necessary information required by us.
- 9. No property or funds of the trust were applied for any object or purpose other than the objects or purpose of trust.
- 10. The amounts outstanding for more than one year are Rs.111055/- (a/c MVIF) and Rs. NIL is written off during the year.
- 11. During the year repair or construction work involving expenditure exceeding was not undertaken.
- 12. No money of the public trust has been invested contrary to the provision of section 35 of the Bombay Public Trust Act, 1950.
- 13. The trust has no immovable property.
- 14. No special matter is to be reported.

Place: Ahmedabad

For S. J. Pathak & Co. Chartered Accountants

S. J. Pathak

Partner Date: 07.07.2005

Memb. No. 16771.