





National Innovation Foundation - India

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Autonomous Body of the Department of Science and Technology, Govt. of India



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The art of collaborative research and value addition is one area where NIF has continuously extended the frontiers of imagination and action. Not only the collaboration with Council of Scientific and Industrial Research (CSIR) was renewed, and MOU signed with Indian Council of Agricultural Research (ICAR) but a very large project was also approved by Indian Council of Medical Research (ICMR). It will help NIF to screen 800 promising herbal leads through contract research organizations and other labs to get time bound results.

With limited staff and other resources, mobilising resources from outside, both intellectual and financial, is imperative. NIF has tried to show that constraints can often be converted into opportunity. NIF had to bear a budget cut during the year. In real terms it was almost at the same level it was, when NIF was founded in the year 2000. But the NIF team has continued to garner and harness tremendous voluntary support from scientific, technological, IPR and fabrication community. A very creative and empathetic mobilization of social and ethical capital of the Honey Bee Network has made it happen. The role of new social movements in supporting missionary organizations becomes quite evident.

The first Festival of Innovation (FOIN), March 7-13, 2015 at Rashtrapati Bhavan hosted by the office of the President of India, gave an invaluable opportunity to NIF to take the inclusive innovation movement to the next level. I must thank our Hon'ble President, Shri Pranab Mukherjee ji and his office for entrusting us this responsibility to link the creativity of informal grassroots level with the innovations in formal sector for grassroots applications. This way several missing links in innovation ecosystem began to be bridged better than before. The innovators at the grassroots level rubbed

# **Preface**

shoulders with those from the formal sectors like engineering, sanitation, biotechnology, and medical streams. The innovation champions from many countries, leaders of banking and financial institutions, entrepreneurs, scientists, and policy makers visited the innovation exhibition and interacted with the grassroots innovators. The Innovation Scholars - in - Residence also were welcomed at the FOIN so that they could absorb the spirit of the Festival. These scholars spent ten days as the guest of the President of India at Rashtrapati Bhavan. The NIF team coordinated their interaction with various stakeholders under the guidance of the office of the President.

This year also marks the 25<sup>th</sup> anniversary of the Honey Bee Network, which has been spearheading the grassroots innovation movement in the country and around the globe. The emergence of NIF fifteen years ago could become possible due to relentless work of thousands of volunteers of the Network in the preceding decades. These volunteers continue to toil hard to help NIF reach the nook and corners of the country which would have been well nigh impossible otherwise. The volunteers also help in validating and value addition, filing patents, fabricating products etc., at nil or minimal cost.

I was also fortunate to have had the opportunity to address a very large community of global scholars and activists involved in innovations at/with/for and from grassroots brought together by the third International Conference on Creativity and Innovation at IIMA supported by NIF among others.

The recent establishment of the Technology Business Incubator at NIF would also help innovators and young entrepreneurs to join hands to take grassroots technologies from the 'Mind to the Market' completing the entire value chain. I hope that NIF will continue to serve the society and in particular the creative communities of India and other third world countries with even greater dedication in the years to come. I heartily compliment the Team NIF and various volunteers of the Network for their continued demonstration of the power of distributed leadership and social engagement.

RA Mashelkar

# Introduction



# **Anil K Gupta**

Executive Vice Chairperson, NIF Professor, Indian Institute of Management, Ahmedabad

The NIF has continued to engage with creative communities in different parts of the country. The efforts are gaining higher momentum every year. The positive support from Department of Science and Technology has further enthused the NIF team to embark upon several new challenges. NIF has persisted with the idea of MLM (more out of less for many) as often stressed by the Chair, Dr R A Mashelkar. With declining budget, NIF has extended its effort for outreach, validation of, and value addition in outstanding traditional knowledge as well as contemporary grassroots innovation by mobilising resources from other institutions.

## Networking and partnerships

What is more creditable is the confidence, which various partners, apex science and technology institutions have shown in the commitment and competence of NIF in furthering the cause of inclusive innovations. The MoU with Council of Scientific and Industrial Research (CSIR) was renewed for another five years. What does it entail for the blending of excellence in formal and informal science? It implies that grassroots innovators can continue to engage with the best minds in the CSIR labs. It is true that the momentum of this cooperation had slowed down a bit in the recent years but the situation is changing and for better. The legacy of this cooperation started in 2004 under the leadership of then Director General of CSIR, Dr. RA Mashelkar (Present Chairperson of NIF) and has been continued with successive DGs.

Informal but very active cooperation with Indian Council of Agricultural Research (ICAR) has been formalized through a MoU. I must acknowledge the unstinted support from various ICAR institutions and state agricultural universities that NIF, in fact the entire Honey Bee

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Network has received over the years. The labs/universities have helped us in validating farmer and artisanal innovators' claims, without which we will have difficulty in recognizing them through awards, or supporting them for value addition or business development. Partnership with ICAR has also opened doors for some additional resources for disseminating the innovations through district level Krishi Vigyan Kendras.

One of the largest sections in the national register of grassroots innovations and traditional knowledge is herbal practices for human and animal health. While veterinary claims are being pursued through ICAR insitutions, human health had been pending in large numbers. There has been a very major development during the year in NIF's partnership with Indian Council of Medical Research (ICMR). The proposal for supporting validation of 800 unique herbal leads for addressing major human diseases has cleared the financial procedures at the Department of Health Research. Once released, this will strengthen NIF's ability to serve one of the most neglected segments of grassroots knowledge providers, both individuals and communities. I am hopeful that after validation, support for clinical trials prior to full-fledged development of health products will also be forthcoming. The expert committee under this initiative is chaired by Dr R Kumar of Indian Institute of Sciences, Bengaluru.

The future research and development scenarios in the world are going to be much more distributed, diversified and open. Various kinds of expertise on any specific problem are unlikely to be found in any one institution, place or discipline. Networking and partnership are the ways forward. The resource constraint, limited budget and penchant for frugality have led to maximum reliance by NIF on such an approach. It has also meant that the mission of NIF is owned by a very large number of stakeholders. They all share their ideas about different ways in which wings can be added to the often

unarticulated aspirations of creative communities and individuals. The downside of distributed knowledge management systems is a bit of uncertainty about availability of relevant information or resources. But this is compensated in our view through redundancy and additive social capital of partners. It is not just NIF's problem to find relevant expertise or resources, the Network members influenced as they are by the Honey Bee Network philosophy, also try.

In addition, NIF has also worked with many leading private sector labs and institutions. Such partnerships are likely to expand. NIF Incubation and Entrepreneurship Council (NIF-ientreC) was registered as Technology Business Incubator this year. It will open a new chapter in spawning start-ups not only by innovators but also other entrepreneurs who wish to enter into partnership with innovators. The IGNITE awards were given by the former President of India, Dr. APJ Abdul Kalam who inspired the winners and also those who participated in the idea contest from all over the country. Idea of children matter but they matter even more if these are guided by samvedana for disadvantaged social segments. A collaborative workshop was organized with the help of Honey Bee Network partners involving IGNITE winners and the slum/rural children to sensitize both about the value of collaborative and empathetic learning.

In the 25<sup>th</sup> year of the Honey Bee Network, third International Conference on Creativity and Innovation for/with/at/from Grassroots (ICCIG) was supported at IIMA to engage academic around the world with the grassroots innovation movement. We had faculty from the top universities of the world including University of California, Berkeley, MIT Boston, besides numerous institutions in Brazil, South Africa, Australia, several other African and South East Asian countries. UNICEF and NABARD supported ICCIG besides SRISTI, GIAN and numerous volunteers of Honey Bee network and

of course faculty and students of Indian Institute of Management, Ahmedabad. Without IIMA's support the grassroots innovation movement could not have grown to the present level. NIF greatly appreciates the continued support from IIMA.

This year has also involved shifting a large part of the NIF office to Grambharti, a Gandhian institution situated 55 km away from Ahmedabad. Through SRISTI's decades of partnership with Grambharti, NIF also has been offered land at no cost on long term lease to build a National Inclusive Innovation Center for Development (NIICenD) campus. This will imply that connection between NIF team and the nearby local rural communities will become stronger and deeper. Already several initiatives have been taken by NIF team to share sustainable, open source knowledge with neighbouring villagers with excellent results. Both on-farm and on-station research is getting strengthened through this partnership. NIF is trying to practice what it preaches through frugal, flexible, and friendly partnership with communities and creative people.

I hope that support of volunteers and various partners will continue to be available to NIF and the Network in the service of grassroots creativity.

Anil K Gupta



# **Director's Message**

# **Vipin Kumar**

Director and Chief Innovation Officer, NIF

The year 2014-15 commemorated the work of 25 years of the Honey Bee Network, which laid the foundation for setting up the institution of National Innovation Foundation – India (NIF) in the year 2000 with support of the Department of Science and Technology. NIF has since then built upon the voluntary spirit of the Network to take forward the agenda of the grassroots innovations.

In addition to the efforts in reaching the hitherto unreached parts of the country, mobilizing support for value addition in grassroots technologies and protection of IPRs, the year also saw a number of partnerships being developed to take grassroots innovations to the market so that their real value can be harnessed by the society. Some other collaborations were forged aiming to build an enabling ecosystem around these innovations. NIF again supported the Rashtrapati Bhavan in its innovation promotion efforts, helping in conducting the second Innovation Scholar-in-Residence program and organizing the first Festival of Innovation (FOIN). NIF's 8th National Biennial Award ceremony was held on the first day of the FOIN. During the FOIN, NIF also facilitated the Global Roundtable on Inclusive Innovation, SRISTI's Gandhian Young Technological Innovation (GYTI) Awards, exhibition of innovations by technology and medical students, and the round-table on financing innovation organised with National Bank for Agriculture and Rural Development (NABARD), among other activities.

The annual budget provided to NIF has been a constant constraint but NIF has tried to work around the constraint by inculcating frugality in its internal expenses and also by involving partners who have worked on a pro bono basis. I also hope that NIF would not have to work with this constraint in the future, though the guiding

principles of frugality and sustainability imbued in its working since its inception would continue to be followed. I welcome participation of all to contribute towards any segment of the innovation value chain. The dream of an innovative and inclusive India cannot be fulfilled until all stakeholders join hands to build a robust ecosystem to nourish and nurture innovations.

I take this opportunity to gratefully acknowledge the guidance provided by the Hon'ble Union Minister of Science and Technology, Dr. Harsh Vardhan and the Hon'ble Minister of State for Science and Technology Shri YS Chowdary. I am thankful to NIF's Chairperson, Dr RA Mashelkar, Executive Vice Chair, Prof Anil Gupta and other Governing Board Members for sharing with us their vision and motivating us to undertake bigger responsibilities with aplomb. I wish to put on record my deepest regards for Dr T Ramasami, former Secretary, Department of Science and Technology for his continued support and encouragement during his tenure as Secretary and even afterwards. I also wish to acknowledge the generous support provided by Prof Ashutosh Sharma, the Secretary and other officials of the Department of Science and Technology. My colleagues at NIF and in the extended Honey Bee Network family also deserve appreciation for their commitment to the cause. I am sure our network and bonds will grow stronger with time, to meet all the challenges of tomorrow.

With my best wishes

Vipin Kumar

# **Governing Board**

#### 1. Dr. R A Mashelkar - Chairperson

National Research Professor, CSIR - National Chemical Laboratory, Dr. Homi Bhabha Road, Pune - 411 008

## 2. Prof Anil K Gupta – Executive Vice Chairperson

Indian Institute of Management, Vastrapur, Ahmedabad - 380 015

#### 3 Ms. Elaben Bhatt – Member

Founder, Self-Employed Women Association, SEWA Reception Centre, Opp: Victoria Garden Bhadra, Ahmedabad - 380 001

#### 4. Dr. V L Kelkar - DST Nominee- Member

A-701, Blossom Boulevard, Plot No. 421, South Main Road, Near Pingale Farm, Koregaon Park, Pune - 411001

#### 5. Shri H K Mittal – Member

Scientist G, Adviser & Head, National Science & Technology Entrepreneurship Development Board, Technology Bhawan, New Meharauli Road, New Delhi -110 016

#### 6. Director General - Member

Council of Scientific and Industrial Research, Anusandhan Bhawan, 2 Rafi Marg, New Delhi -110001 or Director CSIR-CMERI as his nominee

#### 7. Director General - Member

Indian Council of Medical Research, V. Ramalingaswami Bhawan, Ansari Nagar, New Delhi -110029

## 8 Prof. Devang Khakhar – Member

Director-Indian Institute of Technology Mumbai, Powai, Mumbai - 400076

## 9. Shri Pradyumna Vyas – Member

Director National Institute of Design, Paldi, Ahmedabad

## 10. Shri Kishore Biyani – Member

Founder, Future Group, SOBO Central, 4th Floor, Nr. Haji Ali, Tardeo, Mumbai - 400 034

## 11. Prof Pankaj Chandra – Member

Former Director, Indian Institute of Management, Bangalore, Bannerghatta Road, Bangalore

#### 12. Ms Riya Sinha – Honey Bee Network Nominee

Satisar Apartments, B 802, Sector - 7, Plot - 6, Dwarka, New Delhi

# 13. Secretary, Ayush - Ex-officio - Member

Department of AYUSH, Ministry of Health and Family Welfare, Red Cross Road, New Delhi - 110001

## 14. Chairman, SIDBI - Ex-officio - Member

Tower 15, Ashok Marg, Lucknow 226001

## 15. Secretary, MSME - Ex-officio - Member

Udyog Bhawan, New Delhi

## 16. Dr. S. Ayyappan – Member

DG, ICAR, Krishi Bhawan, Dr. Rajendra Prasad Road, New Delhi-110001

## 17. Financial Advisor - DST - Ex-officio - Member

Department of Science and Technology, Technology Bhavan, New Mehrauli Road, New Delhi - 110 001.

#### 18. Chief Secretary, Government of Gujarat - Ex-officio- Member

Gandhinagar - 382020, Gujarat

# 19. Director/Chief Innovation Officer –Ex-officio– Member

National Innovation Foundation-India, Satellite Complex, Premchandnagar Road, Satellite, Ahmedabad - 380015, Gujarat

# **Finance Committee**

#### 1. Dr. R A Mashelkar – Chairperson

National Research Professor, CSIR - National Chemical Laboratory Dr. Homi Bhabha Road, Pune - 411 008

#### 2. Prof Anil K Gupta - Secretary

Indian Institute of Management, Vastrapur, Ahmedabad - 380 015

## 3. Prof Pankaj Chandra - Member

Former Director, Indian Institute of Management, Bangalore, Bannerghatta Road, Bangalore-560076

### 4. Ms. Elaben Bhatt - Member

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#### 5. Financial Advisor – Member

Department of Science & Technology, Ministry of Science & Technology, Technology Bhawan, New Mehrauli Road, New Delhi - 110 016

#### 6. Director/Chief Innovation Officer – Member

National Innovation Foundation-India Satellite Complex Premchandnagar Road, Satellite, Ahmedabad - 380015

# Organizational Chart

Scouting

# Governing Board Chairperson Finance Advisory Committee **Executive Committee of** Vice Formal & Informal Chairperson **Honey Bee Experts** Network Director/ Chief Innovation Officer Departmental Heads Business Development & Micro Venture Value Addition, Dissemination IPR Management Information Research and Development & Documentation & Social Diffusion Technology

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# **Marching Ahead**

In the twenty fifth year of the Honey Bee Network, the journey of grassroots innovators and the outstanding traditional knowledge holders from remote corners of the country to the Rashtrapati Bhavan has been a major milestone. All those who care about inclusive innovation ecosystem can be justifiably proud of. But several bigger challenges still confront us. More than 700 patents filed in the name of the innovators including children are a tip of the iceberg. Much greater stock of knowledge is being shared in the open source. Efforts are underway to pool all the ideas, knowledge and practices, which are not unique. They will be shared as a part of People's Knowledge Database (PKD) so that society can take cues about the way social concerns are emerging in different parts of the country. This database will eventually also help us to hear the 'silences' that are the problems, which are not being addressed or which are not being noticed.

The first Festival of Innovation (FOIN) hosted by the office of the President of India at the Rashtrapati Bhavan created a new landmark in the way India celebrates innovations. Providing support for this has been another new responsibility of National Innovation Foundation showing expanding social and ethical capital base of the Network.

The report summarises the way we learned from shodhyatras, supported creative children and other innovators, honoured creative contributors to addressing various unmet needs of the the country at the Eighth National Biennial Presidential Grassroots Innovation award function and a lot more. Please share your feedback, get involved with the inclusive frugal innovation movement that Honey Bee Network represents.

# **Shodh Yatras: Haryana and Sikkim**

NIF joined SRISTI in organizing the 33<sup>rd</sup> Shodhyatra, from Jant-Pali village to Dattal Nangal Chaudhary, Mahendragarh district, Haryana during May 24 to 31, 2014. The 34<sup>th</sup> Shodhyatra was pursued during January 28 to February 3, 2015 from Lum to Tingvong village in upper Dzongu, North Sikkim district, Sikkim. The shodhyatris, coming from different walks of life from India and abroad, walked together to learn from four teachers: a) nature b) each other c) one's inner self and d) the common people. During the shodhyatras, the yatris organised village meetings, idea and biodiversity competitions, met creative artisans, artists, centenarians, farmers, outstanding traditional knowledge holders and innovators. NIF and Honey Bee Network volunteers demonstrated relevant innovations to the villagers, put up poster exhibitions and shared the Honey Bee database with the villagers.

Walking through the villages in Mahendragarh district, Haryana during the 33<sup>rd</sup> Shodh yatra was very reassuring in certain aspects and bewildering in other. Yatris did not come across even a single malnourished child in the villages during the walk. How could it happen when many other states and

regions of Haryana itself have rampant malnutrition? The credit goes to the mothers for breast feeding their children up to two and half to three years. If they did not have a second child, then some mothers breast fed the first one up to five years. There were also public write-up on the walls advocating breastfeeding of the infants. Culturally the region was extremely hospitable and generous in its treatment of strangers. Every 100 yards and sometimes lesser, there were water pots for people to quench their thirst. Similar must have been the

culture in different parts of the country in the past but during the walks over the last 17 years, yatris have not come across so much concern for water for human as well as birds on the kutcha roads connecting one village to another in any parts of the country.

Arjunbhai showed in every meeting the process of making a bird feeding platform using old plastic bottles and plates. Gujarat also has many more chabutaras in drier and less developed regions.



Haryana Shodhyatra: Village meetings and innovation demonstration

# **Shodh yatras: Haryana and Sikkim**

There were memorials for various soldiers who laid their lives for the country. There has been a long tradition of youth from the region joining the defense services. Many people had built sculptures of their grandparents to show their respect. This again was a unique feature, which we had not seen elsewhere with so much respect. There was not any colour missing from the houses painted in purple, green blue, red and greys. There were some worrisome aspects of development also. Given the uniform charges for electricity, regardless of the actual consumption, farmers use water very irresponsibly. In many places, the water table has gone down to more than 1000 feet and the drinkability of the water has come down also. Paradoxically, any worthwhile rain water storage structures were also not found. In some places, where attempts were indeed made, the quality of the work was so poor that it was washed away within a single rain. In Vidharba of Maharashtra, similar apathy for water conservation was noticed last year. No lesson had been learned from regions, which have had success in this regard such as Saurashtra.

A very large number of young people of the region prefer to become school teachers and the quality of education seemed reasonably good. Students from government schools were generally well informed though there was no shortage of private schools in the region. But surely, the educational quality of many government schools can be improved. Mandhana government school was an outstanding school where so many ideas were received in the on-the-spot idea competition, many of these on the edge of the technological imagination. There are several lessons for the policy makers and other agencies from the grassroots? There could be a nation-wide campaign for educating women for breastfeeding their infants for at least two years if we want to get rid of the scourge of almost 50 per cent children malnourished in the country. This will require a massive reorientation in the developmental priorities. Without healthy children, the country cannot have a bright future. The shodh yatris did come across vegetable gardens in several villages akin to the practice found in Anantnag district, J&K, another region which has very low infant malnutrition. In Gujarat and many other developed states, it is very rare

to find vegetable gardens in every farm. This could also be popularised. NIF could help spread the varieties of indigenous vegetable seeds it has received from many local communities.

Judicious use of water is the need of the hour. Villagers are aware that serious crisis is in the offing. In some villages, as against 122 wells a decade ago, hardly 25 were in operation. Yatris shared an example of a farmer Harbhajan Singh from Hisar, Haryana, awarded by NIF in 2001 for suggesting alternate row irrigation in cotton crop. This would reduce water requirement by half and also reduce pest incidence and hence expenditure on control of pests.

While visiting government schools during the 33<sup>rd</sup> Shodhyatra, impromptu idea competitions were organized. In Buwana village, Sachin shared a problem about tall and short children not being able to sit equally comfortably on desks of the same height. He suggested desk with adjustable heights. This problem has been around for decades. Just like Chhaya, class seven, Gandhinagar district had drawn our attention to the school taps at height higher than little children like her could access, many children here were also not willing to live with persistent design problems in our system. There were more than 300 ideas received from different schools, maximum were received in Mandhana school. Quality of ideas from many rural schools was comparable with the best in the country. In the same village, yatris met Kedarnath Khatri who had grown Bt cotton without any pesticide. For a particular disease involving curling of leaves, he sprayed the decanted water collected from limestone powder soaked overnight. For other pests, he sprayed an extract of two kg each of datura, akada and neem in four or five times water or in cow's urine. Many farmers were following his practice. Never before did the shodh yatris meet so many farmers trying to find non-chemical alternatives for pest control and that too in the cradle of green revolution and the crop, which receives almost half the pesticides of the country, i.e. cotton.

Another notable thing during this Shodhyatra was a large number of innovative cycle based weeding and sowing equipment being

experimented upon by the farmers. Pravin and Madho Singh had developed a three wheel human powered weeding device, tested first time on the last day of visit. Shiv Prasad had used the front wheel of cycle and attached two disc ploughs tilted in opposite direction to weed the cotton crop. In Dulhori Jat, a young boy, Pravin mentioned about the problem old people face while boarding the bus. He suggested retractable steps so that old people and women can easily board the bus. In the same village, Omvir Singh showed a frugal motor winding machine costing hardly Rs. 3000, which would have cost at least Rs 20000 in the market. After walking for a while, the shodh yatris stopped for a cup of tea near Shahbajpur, seeing a amaltas (Cassia fistula) tree in full bloom with yellow flowers. As usual, shodh yatris started discussing the purpose of yatra and enquired if the people sitting there knew any innovator. A young student Sujit also confirmed that he also did not know any one. The yatris did not give up. The shodh yatris started narrating examples of innovators they saw on the way using cycle to develop different devices, Sujit immediately recalled a farmer who had actually developed a cycle based millet sowing device. The shodh yatris arranged a vehicle for him to go and fetch Maharam, the innovator from nearby hamlet of Shabhazpur village. It was a very interesting case where a frugal grassroots innovation was more efficient and productive than the costlier version. He explained that when Bajra was sown with the help of cycle plough, the depth was never more than 1 ½ inch and the soil cover on the seed was also thinner. When sown with tractor, the depth was higher and soil cover was also thicker. In the former case, the tillering was higher and yield was sometimes higher than 20 per cent compared to the seeds sown by tractor drawn seed drill. The general assumption is that sowing by heavy machinery would be more productive. Not in this case.

Rishipal, a young student in Dulhori Jat village developed a car driven by compressed air. There were other innovators who had developed similar cars before but that should not detract the importance of what Rishi did in a small village without any technical training. There were many other innovations that we came across such as a mechanic using an old engine in place of compressor for filling air in tank. If the idea of one of the students, Anjali had been implemented widely, many accidents could be avoided. She mentioned that unless one used a seat belt the car should not start. This Shodh yatra, like the earlier one in Punjab, clearly showed that even in the most developed regions of the country, the productivity of the workers remains to be improved and emerging innovations underscore urgency of this goal.

There are many lessons one can learn from 33<sup>rd</sup> Shodh yatra about sanitation, child nutrition, breast feeding of infants for two – three years, local agitations against consumption of liquor, higher tree density in the cultivated fields, etc. Issue is: how to design a richer eco-system for millions of such grassroots and student innovations to be supported at the district level?



# **Shodh yatras: Haryana and Sikkim**



Sikkim Shodhyatra: Biodiversity competition and innovation demonstration

During the 34th shodh yatra in Sikkim, one of the first Indian states to declare itself as organic, finding clean mountains and stone pathways was not surprising. In fact there were more dustbins in the mountainous tracks near Lum village than in the plains. A child Lyangsung, from Gnon Sangdong suggested during an on-the-spot idea competition that a machine be developed to reuse waste plastic and make slippers for the poor people. There could not be a better example of compassion and creativity blended so well. He did not know about 3D printers, which if available to the community could make his idea come true. Lepcha tribe has an extraordinary repertoire of creativity in cuisine, craft, culture and architecture, besides, very rich biodiversity based knowledge system. One requires a permit to enter their region so that the cultural integrity of the community is not violated. In every village, Shodh yatris found aesthetically designed bamboo stalls where dishes made of millets, yams and others tubers and fruits were displayed. The bamboo cups were an irresistible purchase besides of course local wines made of plums, cinnamon, pineapple, ginger and some local herbs having medicinal and nutraceutical properties. Recognising the ill-effects of drinking, Pema Tsheling, a local community leader and few other sarpanchs of adjoining villages had banned the sale of commercial liquor with a fine of ten thousand rupees for any violation.

The arduous route used by Shodh yatris, as many community members mentioned, had not

been used for the last fifty years. Going from three thousand to six thousand feet high and then coming down was indeed very strenuous. The cardamom crop had suffered a great deal of loss in the last few years because of disease infestation but the orange crop was extremely productive and tasteful. However, as is the case in most tribal areas, there was practically zero in situ value addition. Several innovators walking with us shared their experience and demonstrated their ideas for triggering experimentation and innovation in this domain. Dharamvir's Food Processing Machine, a cycle based hoe, a fruit nipper were very popular. SRISTI and National Innovation Foundation (NIF) plan to follow up the Shodh yatra with some entrepreneurial initiatives in each of the fifty eight villages/watts of Dzongu district. One of the unusual fabrics we came across was made of the fibre of stinging nettle. Only two families knew how to make it locally though Uttarakhand has more buoyant tradition still. Afterwards, Honey Bee Network institutions have initiated efforts to skill seven families under the mentorship of the knowledgeable couple in one of the villages in a rented room. This will help keep this distinctive tradition live.

There were many plants which were potential source of herbal pesticide. A farmer in Songyang village had made an innovative herbal pesticide solution combing six different plants. This could be one area of immediate collaboration between Sikkim government and NIF.

If we want educational development in the region without which no sustainable development can take place, then we must provide much better facilities in the schools. One can create audio-visual libraries of educational content and have a fabrication lab in every school so that the children can learn to design and develop solutions not only for local but also for regional and global markets. In high schools, one could provide phytochemistry lab and start a special two-year programme of biotechnology technician with sufficient skills to develop herbal products. The shodh yatris came across plants for reducing blood pressure, healing wounds, curing urinary troubles, curing diarrhoea, curing diabetes, dissolving blood clots, etc. The national goal should be that no raw material goes out of the region without value addition. We have to bring about a biodiversity based revolution so that this region gets economically developed.

National Innovation Foundation – India has decided to engage with the local communities and unleash a grassroots entrepreneurship programme with local youth soon after the Shodh vatra. One of the Presidential awardees, Dharamvir showed his food processing machine and the villagers did not want him to take it back. There is a huge potential demand for knowledge and innovation based enterprises. The yatris were deeply inspired by the cleanliness of the mountains where dustbins were placed at every few hundred meters. We wish the Indian cities will also have similar facilities. The tea in a bamboo cup tastes so good that someday, there will be no plastic cup in the country and north eastern region will provide millions of bamboo cups all over the country and unleash its entrepreneurial potential.

Almost all households in Sikkim have been provided toilets but in schools the situation is different. Senior officers from various cities of India could visit Sikkim, Mizoram and such other regions in North east to see what can be done on cleanliness front. Children need counselling centres, and online tuitions helpline and face to face reactions periodically. Sikkim can teach a few lessons about how ICDS program caters to the needs of tintype tots. Songian village has decided not to allow hard liquor brought from outside. Local herbal nutrition drinks are allowed of course. This is first such attempt in Sikkim. Learning from people overwhelmed all the yatris and made them feel humble.



Steep climb during Sikkim Shodhyatra

# **Eighth National Biennial Grassroots Innovation and Outstanding Traditional Knowledge Award Function**

Hon'ble President of India Shri Pranab Mukherjee gave away national awards in the presence of Dr Harsh Vardhan, Hon'ble Union Minister for Science and Technology and Earth Sciences, Shri YS Chowdary, Hon'ble Minister of State for Science and Technology, Smt. Omita Paul, Secretary to the President, Prof Ashutosh Sharma, Secretary, Department of Science and Technology, Dr RA Mashelkar, Chairperson NIF and other distinguished guests, innovators and their family members. The award function was organised at Rashtrapati Bhavan Cultural Centre on 7<sup>th</sup> March 2015. A total of 41 awards were given to 40 innovators and 6 communities in the function. The Hon'ble President of India Shri Pranab Mukherjee gave away 16 National, one Lifetime Achievement and one Posthumous Award. He also inaugurated the Innovation Exhibition and declared it open for public from March 7 to 13, 2015. Dr R A Mashelkar, Chairperson, NIF gave away the State (4), Consolation (16), Student (3), Partnership (6), Media (5) and Scout Awards (2).



Shri Pranab Mukherjee, The President of India, giving away the Lifetime Achievement Award

The Hon'ble President congratulated the award winners and called innovation as the key to progress and prosperity. He added that 'the process of innovation converts knowledge into social good and economic wealth' and that 'inclusive development is possible only when ideas and innovations of common people are supported whole-heartedly.' He urged the government agencies to play an enabling role so as to properly use our innovation potential for the greater good. 'Building viable linkages between formal and informal sectors also calls for deepening the involvement of the leaders of technological, financial and educational sectors with the creativity of common people and young students', he added. Referring to the first Festival of Innovation at the Rashtrapati Bhavan, the Hon'ble President hoped that the festival will 'provide a platform to bring different stakeholders together and make these entities active partners in inclusive innovation system.' Hailing the effort, he stressed that 'an empathetic value chain for disseminating good ideas can be built upon this initiative.'

Dr. Harsh Vardhan expressed happiness that NIF had 'paved the path for grassroots innovators with concrete incentives and institutional support to serve the society'. He referred to innovation related initiatives announced in the union budget like creation of the Atal Innovation Mission and Self-Employment and Talent Utilization (SETU) policy for supporting start-ups by common people. He also urged the scientific fraternity to come forward to support grassroots innovators and students so that their ideas can be taken forward. Speaking on the occasion, Shri Y.S. Chowdary hoped that the grassroots innovations being recognised and supported by NIF would help bring improvement in the lives of common people especially in the rural areas of the country.

The awarded innovations were identified from over 35,000 submissions received by NIF during its 8th National Biennial Competition (April 1, 2011 to March 31, 2013). The awardees were decided after a rigorous multi-level screening process. All the entries were subjected to technical, market and patent prior art search to ascertain the novelty/distinction, cost effectiveness, market and environmental sustainability, competitive advantage (over existing technologies), user friendliness and social applicability. The shortlisted innovations and outstanding traditional knowledge practices were presented before National Research Advisory Committees (RACs) of formal and informal experts. The RAC comprising the Heads of the top R&D institutions, experts from Engineering, Agricultural and Veterinary Colleges, Vice Chancellors of various Universities etc., evaluated the shortlisted innovations/practices on November 25, 2014 for engineering sector and December 3, 2014 for outstanding traditional herbal, agricultural, veterinary, food related knowledge practices. The RAC comprising eminent grassroots innovators also screened the innovations for awards on November 27, 2014.

The awards were given in six categories viz. Life time Achievement (1) National (16), Posthumous (1), State (4), Consolation (16), and student awards (3). Along with the grassroots innovators, awards were also given to journalists for their support to the grassroots innovations movement, fabricators for helping convert ideas into prototypes/ products, an international law firm for facilitating IPR protection for these innovators in the USA, Science and Technology Councils of Sikkim and Uttar Pradesh for supporting the grassroots innovation movement, among others.

# **List of Awards**



## **Lifetime Achievement Award (1)**

A I Nadakattan, Karnataka

### Posthumous (1)

Late C V Pathak, Maharashtra

#### **National First Awards (2)**

- 1. Energy-Solar multi muga reeling cum spinning machine M Manihar Sharma, Manipur
- 2. Plant Variety Sitara Sringar improved mustard variety Hukam Singh Lodha, Rajasthan

## **National Second Awards (6)**

- Agricultural Engineering Compost maker for mushroom cultivation Jeetender Mallik, Harvana
- 2. Utility-Cotton wick making machine Vijaybhai Solanki and Dipakbhai Vyas, Gujarat
- 3. Engineering Brick/ block making machine Arjunbhai M Paghdar, Gujarat
- 4. Plant Variety Surjeet Basmati 1 high yielding salt tolerant paddy variety Surjeet Singh, Haryana
- 5. Plant Variety Zion Mundi improved black pepper variety P G George, Kerala
- 6. Veterinary Medication for respiratory distress in poultry Shatadal Ghorai and Narugopal Ghorai, West Bengal (Fulbari and Brindabonchak village Community representatives)

#### **National Third Awards (8)**

- 1. Agricultural Engineering Sugarcane bud planter Roshan Lal Vishwakarma, Madhya Pradesh
- 2. Engineering Brick Making Machine K Chandrashekhar, Andhra Pradesh
- 3. Energy– Modified Boiler Based Mawa Maker Subhash Ola, Rajasthan
- 4. Plant Variety –Punnathanam Jathy an improved nutmeg variety –Varkey Thomman, Kerala
- 5. Human Herbal medication for diabetes Bhikhiben Prahladbhai Bajaniya, Gujarat (Bajaniyapura village Community representative)
- 6. Human Herbal medication for diabetes Thakor Makwana Panchabhai Virabhai, Gujarat (Kamalpur village, Community representative)
- 7. Veterinary Herbal medication for mastitis Becharbhai Samantbhai Devgania, Gujarat (Hadida village Community representative)
- 8. Veterinary Herbal medication for bloat Kailash Mistry and Sukhdev Rai, Bihar (Raipur Jagannath and Banu chhapar village Community representatives)

### **State Awards (4)**

- 1. Assam Interlocking brick making machine Umesh Chandra Sharma
- 2. Jammu & Kashmir Kashmiri gas samovar Shazia Jaan
- 3. Karnataka Bore well scanner Girish Badragond
- 4. Kerala Wireless electricity sensing device Rishikesh CS

# **Consolation Awards (16)**

- 1. Nutmeg desheller Sachidanandan VR, Kerala
- 2. Biba fruit shelling machine Sachin Subhash Jagtap, Maharashtra
- 3. Power operated passive weeder K Mahipalchary, Telangana
- 4. Tapioca cutting machine JR Dhanraj and K Mani, Tamil Nadu
- 5. Multipurpose kitchen tool Jasveer Kaur, Rajasthan
- 6. Community rice cooker H Paokholien Lhungdim, Manipur
- 7. Modified hack saw Kapil Dev Thakur, Bihar
- 8. Pappalu Pest tolerant cardamom variety K V Paulose, Kerala
- 6. Kochukudy improved nutmeg variety Jose Mathew, Kerala
- 10. Arjun improved cardamom variety Menuwin Thomas, Kerala
- 11. HZKB 1 traditional brinjal variety Laxmibai Zulapi, Karnataka (Community representative)
- 12. Medication for anestrus Nathabhai Waghajibhai Patel, Gujarat
- 13. Medication for lactogogue Prahallad Jala, Orissa
- 14. Medication for bloat Naresh Ishwar Singh, Uttar Pradesh
- 15. Herbal treatment for high blood pressure Badri Mahato, Bihar
- 16. Herbal treatment for high blood pressure Abdul Rehman Sada, Jammu and Kashmir

## Student Award (3)

- 1. Walker with adjustable legs Shalini Kumari, Bihar
- 2. Low cost braille printer Santokh Singh and Khushwant Rai, Punjab
- 3. Helmet based ignition system for two-wheelers SM Arthi, Laila Banu, Vinotha, Tamil Nadu

### **Partnership Awards (6)**

- 1. Thomas Turano, K&L Gates LLP, Boston
- 2. Indian Institute of Spices Research, Kozhikode (Calicut)
- 3. Jitendra Sahoo, Orissa
- 4. Kodar Patel, Gujarat
- 5. Sikkim State Council of Science and Technology, Sikkim
- Council of Science and Technology, Uttar Pradesh

### Media Awards (5)

- 1. Limca Book of Records
- 2. Dinesh C Sharma
- 3. Kavita Kanan Chandra
- 4. Rajasthan Patrika (Hindi)
- 5. Sakshi (Telugu)

## **Scout Awards (2)**

- 1. Govt. Higher Secondary School (Boys and Girls), Thiruvarur, Tamil Nadu
- 2. Police DAV School, Jallandhar, Punjab

# IGNITE 14 – the National competition for students' technological ideas and innovations

The IGNITE 14 competition (September 1, 2013 to August 31, 2014), received a total of 27123 submissions of students from 359 districts of 35 States & Union Territories. The competition is organised in association with Central Board of Secondary Education (CBSE), Society for Research and Initiatives in Sustainable Technologies and Institutions (SRISTI), and other partners. A number of State Educational Boards viz. Directorate of Higher Education, Himachal Pradesh, Goa Board of Secondary and Higher Secondary Education, Council of Higher Secondary Education, Manipur, Haryana Board of School Education, Nagaland Board of School Education, and Mizoram Board of School Education also actively promoted the IGNITE campaign.

An expert committee meeting was organised to review and finalize awards for IGNITE 14 on Oct 5, 2014 at IIM Ahmedabad. A total of 22 ideas/ innovation were recommended for the awards, which were announced on October 15, Dr APJ Abdul Kalam's birthday, celebrated as the Children's Creativity and Innovation Day by NIF. Dr. Kalam gave away the IGNITE 14 National awards on







Dr. APJ Abdul Kalam giving the award address and interacting with the award winners in the exhibition

November 19, 2014 to 28 student awardees at IIM Ahmedabad. These awardees belonged to 22 districts of 15 States and Union Territories. An exhibition of all award winning ideas and innovations was also organised.

A three day workshop (Nov 18-20, 2014) with IGNITE awardees and school children was also organized during the IGNITE function in collaboration with SRISTI. The idea was to bring privileged and underprivileged children from small villages, slums and other places together and help them observe, analyse, assimilate,

abstract and resolve the problems of the disadvantaged children in slums. It was expected that such a workshop would help induct the IGNITE winners in the Honey Bee Network philosophy and trigger a more samvedansheel attitude towards life.

IGNITE 15 national competition for original technological ideas and innovations of school students received about 2500 entries till March 31, 2015. The entries for this round of IGNITE will be received till August 31, 2015.







# The Festival of Innovation, Rashtrapati Bhavan, New Delhi, March 7-13, 2015

During the Decade of Innovation (2011-20), various initiatives have been taken up by the Rashtrapati Bhavan to promote innovation, particularly grassroots innovation in the country, and its linkages with higher education and research system. Since 2010, National Innovation Foundation – India (NIF) has been organizing an exhibition of grassroots innovation at The President House to expose the Mughal garden visitors and others to the pervasive culture of creativity and innovation at grassroots. To leverage the uniquely frugal and empathetic model of grassroots innovations developed in India, the President's Office decided to organize the Festival of Innovation (FOIN) at the Rashtrapati Bhavan during March 7-13, 2015, with the help of NIF. As part of the FOIN, a number of activities were planned every day.



Shri Pranab Mukherjee, The President of India, inaugurating the innovation exhibition

On the first day of the FOIN, March 7, 2015, selected grassroots innovators and outstanding traditional knowledge holders from all over the country received awards at the hands of Hon'ble President of India Shri Pranab Mukherjee at Rashtrapati Bhavan Cultural Center, Rashtrapati Bhavan, New Delhi in NIF's 8th National Biennial Award Function. The Hon'ble President also inaugurated an exhibition of grassroots innovations where value added products based on the knowledge of award winning grassroots innovators were also showcased. The second batch of creative Innovation Scholars - In -Residence joined the residency at Rashtrapati Bhavan on March 7, 2015. They were given chance to demonstrate their technologies to visitors, scientists, policy makers, entrepreneurs, Ministers etc.

On December 11, 2013, the Hon'ble President had launched an 'In-residence' Programme for writers, artists and innovation scholars at Rashtrapati Bhavan, to provide further impetus to grassroots innovation. In March 2014, NIF's national award winners and grassroots innovators, Gurmail Singh Dhonsi (Ganganagar, Rajasthan; innovator of the rapid compost making machine and tree pruner), Dharamveer Kamboj (Yamunanagar, Haryana; innovator of the multi-purpose processing machine) and Tenith Adithyaa (IGNITE Awardee from Virudunagar, Tamil Nadu; innovator of adjustable electricity extension board and banana leaf technology), were selected as Innovation Scholars under this scheme of Rashtrapati Bhavan along with SRISTI Techpedia's Gandhian Young Technological



Shri Pranab Mukherjee, The President of India, at the stall of Shazia Jan, innovator from J&K





Shri Pranab Mukherjee, The President of India, with the Innovation Scholars In-Residence

Innovation Award winners Manisha Mohan who developed Society Harnessing Equipment (SHE) and M.B. Avinash who developed Self-cleaning functional molecular material. The scholars were selected for residency of twenty days at the Rashtrapati Bhavan in July 2014.

The second batch of Innovation scholars was provided residency at the Rashtrapati Bhavan starting March 7, 2015 for a period of two weeks. The innovation scholars included grassroots innovators Rai Singh Dahiya (Jaipur, Rajasthan; innovator of Biomass gasifier), Mansukhbhai Jagani (Amreli, Gujarat; innovator of Bullet Shanti), B Mohanlal (Alappuzha, Kerala; innovator of reversible reduction gear for marine diesel engine and Z- drive propeller), Kamruddin Saifi (Ghaziabad, Uttar Pradesh; innovator of Chaff cutter with clutch and brake

system) and student innovators Sarthak Shukla (Ghaziabad, Uttar Pradesh; innovator of cylindrical shaped refrigerator with rotatory tray), Mukul Malviya & Diptanshu Malviya (Sirohi, Rajasthan; innovator of wrapper picker), Priyanka Mathikshara (Chennai, Tamil Nadu; innovator of super stocker 3C), Vikas Dhruwdas Karade (Mumbai, Maharashtra, innovator of X Ray to 3 D), Anand TS (Chennai, Tamil Nadu; innovator of prosthetic knee for uneven terrain), Shantanu Pathak (Mumbai, Maharashtra, innovator of Caremother).

During this period, these innovation scholars-in-residence interacted with concerned ministries, research institutions, etc. for possible support for further research and development work and/or diffusion of their innovations. The purpose is to build their

# The Festival of Innovation, Rashtrapati Bhavan, New Delhi, March 7-13, 2015

linkages with policy, technology and other institutions such as industry associations, Bureau of Indian Standards and other stakeholders. The Hon'ble President also interacted with the scholars-in-residence and motivated them.

NIF coordinated with the President House and helped in screening of entries, coordination with innovators, technical institutions, government departments, ministries etc., for making the programme a great success. NIF is expected to support the residency and provide post residency mentoring as well.

A Global Roundtable on Inclusive Innovation was also organized during March 7-8. Senior experts, policy makers and other stakeholders were invited to draw lessons for poverty reduction, entrepreneurship development and value building for inclusive innovation. Leaders

from public, private and civil society sectors within the country were also invited. Speaking at the Rapporteurs' summarization of Global Roundtable on Inclusive Innovations, the Hon'ble President mentioned that India has had a long tradition of grassroots innovation. Since time immemorial, common people have developed novel solutions in the wake of the difficulties faced in daily life. He mentioned that 'creating an inclusive eco-system calls for linkages between grassroots innovators on the one hand, and academic institutions and market forces, on the other'. He stressed, 'countries successful in building such a network have become innovation leaders'. While applauding the work of Nobel Laureate Prof. Mohd. Yunus in creating an outstanding model for micro-finance, the Hon'ble President mentioned that 'the next major breakthrough will come through micro venture innovation finance', championed by the Honey Bee Network and



Shri M Venkaiah Naidu, Union Minister for Urban Development visiting the exhibition



Smt. Maneka Gandhi, Union Minister for Woman and Child Development visiting the exhibition

National Innovation Foundation. He invited all the distinguished delegates to 'participate in the Indian development story, which will exhibit frugal and sustainable pathways for other countries and communities'.

On March 8, Dr. R A Mashelkar, Chairperson NIF and Dr. K Vijayraghavan, Secretary DBT gave away the Gandhian Young Technological Innovation (GYTI) Awards of SRISTI to innovative technological student projects under the guidance of respective faculty members in engineering, pharmacy, science and other applied technologies. Biotechnology Industry Research Assistance Council (BIRAC)-SRISTI GYTI awards of Rs 15 lac each will also be given from this year onward to fifteen most promising student projects besides appreciation award of Rs one lac to 100 other students. It is hoped that through this process, grassroots innovators will start being linked with technological youth of the country.

A children's creativity and co-creation workshop was organized by SRISTI with support of UNICEF, NIF and local voluntary organizations on March 9-10. The workshop tried to identify and address unmet social needs in slums of Delhi seen through the eyes of 35 privileged and 35 underprivileged children (age group of 10 to 17 years) from various parts of the country. Previous IGNITE winners and some of the GYTI winners were also invited. An exposure to the exhibition of innovations by children, technology students and grassroots innovators including farmers, mechanics, artisans etc., was given to them to ignite their creativity. Children were divided in four groups to visit different slum areas of Delhi viz. Valasva, Yamuna Pushta. Batla House and Kushumpur Pahari to interact with the people and see their day to day problems. On March 10 children made their presentations with assistance from the coordinators. After lunch there was a discussion on changing pedagogies and ways in which



Nobel Laureate Prof. Mohd. Yunus at children's creativity workshop

# The Festival of Innovation, Rashtrapati Bhavan, New Delhi, March 7-13, 2015

partnerships between privileged and underprivileged children will help to find solutions for both. The workshop triggered an innovative thought process among the children and helped in tapping the dormant creative potential of underprivileged kids who probably did not have the courage to articulate their ideas earlier.

The meeting of the National Innovation Clubs was organized on March 10 where representatives of over 100 innovation clubs at different NITs, Central Universities, and other institutions shared their achievements. An exhibition on Innovations in Medical and Biotechnology was organized on March 11 by ICMR where 46 innovations having grassroots applications were displayed. NIF hopes that these formal sector innovators will also consider joining hands with grassroots innovators and outstanding traditional knowledge holders in health sector. An exhibition on innovations for Clean India, 'Swachh Bharat' was organized on March 12. Shri M. Venkaiah Naidu. Hon'ble Union Minister of Urban Development visited the exhibition and inspired the innovators and entrepreneurs in the field of sanitation, public hygiene and related areas. Smt. Maneka Gandhi, Hon'ble Union Minister for Women & Child Development also visited the innovation exhibition and motivated the innovators.

NABARD and NIF organized the policy dialogue on Financing of Innovations on March 13, where leaders from banking and financial sectors were joined by Shri Pranab Mukherjee, Hon'ble President of India, Shri YS Chowdary, Hon'ble Minister of State for Science and Technology, and Dr. Hasmukh Adhia, Secretary, Department of Financial Services besides Chairmen and EDs of various banks and Indian Bank Association.

The Hon'ble President, in the concluding session, mentioned that the 'development of innovation involves the conversion of a novel idea into a viable product' and for 'financing of innovation, the role of the banking system is paramount in the entire innovation value-chain'. Regretting that many innovations in the country could not be taken forward due to the lack of adequate financing opportunities, the Hon'ble President remarked that there was an 'urgent need to deliberate on the strategy required for changing the climate of cooperation between innovators, investors and entrepreneurs'. He talked about several new initiatives of the government like Pradhan Mantri Jan Dhan Yojana, Atal Innovation Mission and the Self-Employment and Talent Utilization (SETU). There were many challenges however, that still remained to be addressed. Stressing the role of mentoring, in addition to finance, he mentioned that 'the banking system, in collaboration with the National Innovation Foundation, can help create a pool of mentors in every district to assess and meet the financial needs of the innovators.' He stressed the fact that 'sensitization and capacity building form an important agenda of inclusive innovation system.' He complimented NABARD for its efforts and achievements through a systematic and strategic approach and for organizing the dialogue. He concluded by thanking NIF for organizing the first Festival of Innovation and declared it closed.



Policy dialogue on financing of innovations

# **Sectional Activities**

## a) Scouting and Documentation (S&D)

#### i. National Biennial Campaigns

The Ninth National Biennial Competition (April 1, 2013 -March 31, 2015) received about 33, 500 submissions from different parts of the country. The Tenth National Biennial Competition will continue during April 1, 2015 -March 31, 2017.

## ii. Capacity building

Interactive meetings were organized with scouts and volunteers of West Bengal, Himachal Pradesh, Punjab, Gujarat, Bihar and Jammu and Kashmir for their capacity building, reviewing the S&D activities in these states and to develop new strategies for further work.

## iii. Meetings/workshops

Over 60 meetings were organized in different villages of Sitamarhi, Nawada,

East Champaran, West Champaran, and Rohtas district, Bihar, Jalpaigudi district, West Bengal, Amreli, Banaskantha, Dahod, and Gandhinagar district, Gujarat. The purpose was to promote lateral learning among traditional knowledge holders, spreading awareness about grassroots innovations and scouting new biodiversity based local practices. Many practices were prioritized based on the feedback received from villagers and herbal healers.

NIF team visited Kavaratti, Union territory of Lakshadweep to initiate grassroots innovation related activities in the archipelago. The local Science and Technology Council agreed to include these activities in their agenda.

# b) Value Addition, Research and Development (VARD)

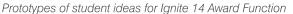
# i. Engineering Technologies

To strengthen the fabrication facilities at NIF's FAB-LAB, different machines including 3D printer, vacuum forming machine, Tig welding machine, spot welding machine, manual pipe bender, gas welder cum cutter, compressor with spray gun, etc., were installed. Seven prototypes of the award winning ideas in the IGNITE 14 competition were developed in the FAB LAB and four others by taking help of a fabricator and a design firm. During the period, twenty one innovators from eleven states were supported for prototype

development and also strengthening their workshops. Validation of paddy husk stove and modified evaporated cooler were conducted at SPRERI, V V Nagar and MNIT, Jaipur.

STMicroelectronics, a leading manufacturer of semiconductors globally has engaged with Honey Bee Network and NIF to help develop improved prototypes of grassroots technologies. Engineers of this firm are working on two awarded Ignite technologies by children viz., posture correcting chair and helmet controlled ignition system for two wheelers.



















Prototypes of student ideas for Ignite 14 Award Function

# ii. Agriculture Technologies:

#### **NIF ICAR Collaboration**

National Innovation Foundation – India entered into an understanding on March 9, 2015 with the Indian Council of Agricultural Research (ICAR) to verify, validate and promote innovations from the agricultural sector. The agreement was signed by Prof Anil K Gupta, Executive Vice Chair, NIF and Dr. S Ayyappan, Secretary, DARE and Director General, Indian Council of Agricultural Research at New Delhi in the presence of Dr. Vipin Kumar, Director and CIO, NIF and Dr. Baldev Raj, Director, NIAS besides numerous other senior functionaries of ICAR.

Under the agreement, NIF will share with ICAR, promising technologies from its database comprising innovative agricultural machineries, plant protection practices, improved plant varieties, farm practices etc., which will be verified and validated through ICAR's available R&D facilities. A Joint Implementation Committee (JIC)

chaired by Director General ICAR will monitor and steer the activities proposed under the agreement. This collaboration is expected to convert many ideas and innovations from the grassroots to value added products and generate wealth for innovators, and value for society. These technologies will also generate livelihood options for the youth and self- help groups in rural areas.

## Large scale trials of farmer's variety:

Over 5000 cuttings of apple variety HRMN-99 of Hariman Sharma, Himachal Pradesh, which can grow in relatively hot climatic conditions, were supplied for multi-location trials to farmers in 27 States and Union Territories of the country including North Eastern states and Andaman and Nicobar Islands. Anand Agricultural University, Gujarat, Junagadh Agricultural University, Gujarat, Rajasthan Agricultural Research Institute, Jaipur, Indira Gandhi Agricultural University, Raipur, State Department of Horticulture, Varanasi,



NIF and ICAR MoU

Govind Ballabh Pant University of Agriculture and Technology, Pantnagar were also provided with the sample for on-farm trials.

The HMT paddy variety of Dadaji Khobragade was nominated under All India Coordinated Research Program (AICRP) of Indian Council of Agricultural Research (ICAR) for enabling the release of variety throughout the country.

The evaluation trials of different varieties and practices were conducted at large number of institutions and farmers' fields throughout country.

# iii. Herbal Human health and veterinary practices:

#### **NIF-ICMR Collaboration**

ICMR communicated the approval of SFC under NIF-ICMR collaboration for validation of unique claims of herbal healers during the XIIth plan and financial allocation of Rs. 148 lakh for FY 2014-15. In a meeting on July 7, 2014, the NIF-ICMR joint group finalized the strategies and road-map under the ICMR-NIF joint collaboration.

Under ICMR-NIF task force project, NIF has been given responsibility to develop the projects along with subject experts who may validate the grassroots traditional practices. These practices would be validated by the subject experts/scientists. and a uniform experimental protocol has to be evolved for the identified disease area. In a recent Task force committee meeting, it has been suggested to include tuberculosis, malaria, cancer, diabetes, de-addiction, anti-inflammatory and arthritis, obesity, diarrhoea and dysentery, liver disorders and jaundice, osteoporosis and hypertension related practices for validation.

The first installment of the financial support from ICMR was received for taking up the validation of leads in 11 disease categories (tuberculosis, malaria, cancer, diabetes, de-addiction, anti-inflammatory and arthritis, obesity, diarrhoea and dysentery, liver disorders and jaundice, osteoporosis and hypertension). ICMR Joint Implementation Committee recommended that NIF contacts various premier institutes and Contract Research Organizations (CROs) for validating these leads as per regulatory requirement and on fast track basis. NIF team visited various CROs and institutes to assess and discuss the possibility and modality of validation program.

### **NIF-CSIR Collaboration**

NIF renewed the MoU with Council of Scientific and Industrial Research (CSIR) for validation of and value addition in grass-roots technologies. The MoU was signed by Prof Anil K Gupta, EVC NIF and Dr P S Ahuja, the then Director General CSIR in the presence of Dr RA Mashelkar and the Governing Board Members on July 24, 2014 at IIM Ahmedabad.

#### **NIF-SRISTI Collaboration**

#### Validation of herbal practices

Four herbal formulations based on unique traditional practices were validated under *in vitro* conditions in order to determine their anti-microbial properties against skin pathogens. The result indicates that the extracts and formulations have very good activity. Six different practices were evaluated for their antimicrobial activity against six enteric pathogens using standard methods. All the extracts inhibited the growth of pathogens.

Four fruit ripening practices were evaluated for their ability to increase ripening process in mango. The phyllosphere microbes were also enumerated and evaluated for their role in ripening process. The treated fruits get ripened little early than the untreated ones with no major changes in the quality parameters when compared to normal control. A herbal practice for curing udder sores in bovine was evaluated in lab for its anti-microbial activity against the pathogenic isolates. The alcoholic extract of the plant showed prominent zone of inhibition against the test pathogen *S. aureus*.



NIF and CSIR MoU

# Quality Control and Formulation Development

Specifications were developed for a herbal cream (Care and Care) after standardization of its quality parameters. The method of developing chemical fingerprints of the raw, in-process and final formulation were also

standardized. A polyherbal syrup based on grassroots knowledge was developed and standardized for its quality parameters. The *in vitro* data indicates that the formulation has good anti-oxidant potential as evident from the high phenolic content and scavenging activity. Stability and further efficacy trials are ongoing to ascertain its shelf life.

## C. Business Development and Micro Venture

## i. Yuvan Longlife Pvt. Ltd.

NIF and BVG Life Sciences Ltd entered into a partnership to harness traditional knowledge of grassroots innovators and develop a wide range of products for human nutrition, animal nutrition and plant nutrition. One such initiative, Yuvan Wellness tea, was launched by NIF and BVG on March 8 at Rashtrapati Bhawan. Yuvan Wellness tea has been developed by NIF in collaboration with SRISTI natural product lab based on the knowledge provided by grassroots innovators. There are six variants of Yuvan Tea viz.

anti-ageing, anti-stress, anti-obesity, antidiabetes, anti-hypertension and antiinflammatory, which have been developed over a period of six years after research & development, and validation at leading institutions of the country.

Yuvan Tea will help a large number of individuals to manage lifestyle diseases and bring better health and wellness into their lives. The products shall be available across all major cities of India. NIF and BVG also propose to launch a number of products for preventing malnutrition amongst children. A number of functional foods based on







Launch of Yuvaan Tea: Shri Prakash Javadekar, Union Minister of Environment & Forests and Climate Change addressing the gathering on the occasion

grassroots innovations will be launched in the coming months. NIF nominated Dr. Vipin Kumar, Director, NIF and Dr. Pawan Kumar, Innovation Officer, NIF as Directors on the Board of Yuvan Longlife Pvt. Ltd., company established for the purpose.

# ii. Z-drive propeller and reversible reduction gearbox for marine diesel engines

Earlier in December 2013, NIF had entered into an agreement with Qurmos Marine Equipments, a firm of grassroots innovator from Kerala, B Mohanlal (innovator of

z-drive and gearbox for marine diesel engines) and Kerala State Co-Operative Federation For Fisheries Development Limited (MATSYAFED) for non-exclusive rights of marketing of the innovations within India for three years with the first order of 100 units valued about Rs 70 lakh. Qurmos completed the delivery of 100 units to MATSYAFED by July 2014. NIF had supported the entire value chain so that the innovator can have a good start to his business. For this, various activities undertaken by NIF team include building supply chain for various components,

manufacturing of all dies, castings machining and assembly.

## iii. Etikopakka toys

NIF entered into an agreement with Thane based Gogalgai Toys for non - exclusive marketing rights for twenty three Etikopakka products across India. Etikopakka products are lacquer finished wooden artifacts developed by innovator C V Raju from Vishakhapatnam, Andhra Pradesh.

## iv. Milking Machines

NIF entered into an agreement with Aviva Equipments Pvt. Ltd. for non - exclusive marketing rights for three different models of "Milking Machines" developed by Dakshina Kannada (Karnataka) based innovator Raghav Gowda (Ksheera Enterprises) for the states of Gujarat, Madhya Pradesh and West Bengal.

# v. Walker with adjustable legs

NIF signed an agreement with Kaviraa Solutions for non-exclusive manufacturing and marketing rights of 'Walker with adjustable legs', an innovation by Shalini Kumari, a student innovator from Patna, Bihar who had won an award in IGNITE 2011 competition.

## vi. Pole Pro – tree cum pole climber

NIF, innovator Mushtaq Ahmad Dar and company Indian Innovatix signed an agreement for commercialisation of "Pole Pro – tree cum pole climber" of the innovator from Anantnag, Jammu and Kashmir for exclusive global manufacturing and marketing rights for the innovation.

## vii. Innovative hill turbine

Grassroots innovator G K Ratnakar obtained work order from Bharat Sanchar Nigam Limited (BSNL) to install his water turbines at the sites of BSNL communication towers to generate electricity for them.

# viii. Extra weft insertion in handloom fabric ornamentation device

NIF had coordinated with the innovator Deepak Bharali to participate in the tender floated under the West Bengal Handloom Development Circuit Scheme 2014.

The innovator successfully received order for 450 machines against which the supplies of 200 machines were completed by the innovator.

## ix. Septic Tank Baffle System

NIF signed an agreement with GMI Zarhak Moulders Pvt. Ltd. for manufacturing and marketing of poly-septic tank developed by grassroots innovator Rajesh TR from Kerala with support from Blaise Costabir from Goa. Rajesh TR had developed a poly-septic tank with a nano baffle system, which makes the poly-septic tank more spacious as compared to the concrete septic tank.

## x. Multi Tree Climber

NIF signed an agreement with Bhumiputra Agri Brigade, Odisha for marketing of the multi tree climber developed by grassroots innovator, D. N. Venkat from Tamil Nadu for which he had won a NIF award. The climber can be used for climbing coconut, palmyra, teak, and rubber, silver oak & similar trees.

## xi. Farmer Developed Plant Varieties

NIF signed two agreements with Kaviraa Solutions, Nagpur for production and marketing of HMT & DRK (improved paddy varieties) developed by innovators Dadaji Ramaji Khobragade, Maharashtra and RICHA 2000 (improved Pigeon Pea variety) developed by Rajkumar Rathore, Madhya Pradesh. Dadaji Khobragade has been a National award winner of NIF and has developed eight paddy varieties including HMT and DRK. Rajkumar Rathore has been a consolation award winner of NIF for his RICHA 2000 perennial pigeon pea variety.

## xii. Cow Dung Pot Making Machine

NIF/ GIAN and grassroots innovators Pareshbhai Panchal and Gopalbhai Suratia entered into an understanding for value addition, product development and marketing of the innovation, 'Cow Dung Pot Making Machine'. Gopalbhai had developed the cow dung pots for nursery saplings and with Pareshbhai he developed the pot making machine with the support from NIF & GIAN. Subsequently, NIF/GIAN, Pareshbhai Panchal and Dip Technologies entered into an agreement for exclusive marketing rights of the 'Cow Dung Pot Making Machine' for five years in India.

#### xiii. Seed cum Fertilizer Dibbler

NIF/ GIAN, grassroots innovator Mansukhbhai Jagani and Shri Navkar Metals Ltd entered into an understanding for the exclusive manufacturing and marketing rights for the innovation, 'Seed Cum Fertilizer Dibbler' in India for five years. Mansukhbhai Jagani had developed the dibbler for easy application of fertilizer or sowing of seeds in the soil.

### xiv. Participation in Exhibitions

India International Trade Fair (IITF), Delhi: NIF team participated in the IITF along with grassroots innovators, who were able to generate over the counter sale of about Rs. Nine lakh with confirmed orders for another Rs. 6.5 lakh mainly for the multi-purpose processing machine and the milking machines.

Agritech India, Bangalore: A total of sixty multi-tree climbers of DN Venkat and Late Appachan along with six milking machines of Raghav Gowda were sold during the exhibition with the total amount of business made by the innovators being Rs. 5 lakh approximately.

# d) Intellectual Property Rights

During the period forty two provisional specifications (PS), three direct complete specifications (CS), seven PS to CS applications and eighty eight requests for examination were filed at the Indian patent office.

Seven applications for registration of farmers' varieties at the PPV & FR Authority, New Delhi were also filed. The registration

certificates of two farmers' varieties viz. Sushil Laxmi (Chick pea) and RICHA 2000 (Pigeon pea) were also issued by the PPV&FR Authority, New Delhi. NIF team also followed up with herbal healers for completing the necessary documentation work as required by National Biodiversity Authority for obtaining a patent on herbal product in India.

## e) Information Technology

In addition to providing the necessary hardware, software and networking support, IT team was also engaged in development of apps for in-house use. It also coordinated with the National Informatics Centre (NIC) team at the Rashtrapati Bhavan for sending e-invitations for the Festival of Innovation, March 7-13. 2015 at Delhi.

# Online job application submission module

An online job application module was activated on NIF website where applicants can fill in the required details and apply against advertised vacancy. This will help candidates just to update their record and apply for vacancies in future. The reviewers can filter, view and shortlist applications online and generate summaries as per requirement.

# ii. Smart phone based idea submission app

With the help of a IT volunteer firm, NIF got developed an android platform based 'Honey Bee idea submission app' for smart phones, which was launched at the IGNITE 2014 National Award function on Nov 19, 2014

at IIM A. A QR code has been generated, which can be scanned by a smart phone to download the application. The smart phone users then can simply type and submit an idea whenever it comes to their mind. The submitted ideas get stored in an online database.

## f) Dissemination and Social Diffusion

NIF team has been trying to improve the diffusion efforts across India. Several projects related to the diffusion of grassroots innovations have been ongoing. The aim of the exercise is to introduce new and innovative technologies among different communities. For example, a village in Rajasthan has been provided biomass gassifier to take care of their electricity needs mainly for irrigation. The 'operate and own' diffusion model is being tried where initial cost has been invested by NIF, which the villagers are gradually expected to return over a period of time. Similarly a number of natural water coolers have been installed in government schools in five districts of Rajasthan from where the reports have been positive. Efforts to diffuse side stand gear lock, improved cardamom varieties and improved cook stove in Kerala have also resulted in generating business for the innovators. Partnerships with Apang Manav Mandal (Ahmedabad) and Bhagwan Mahavir Viklang Sahayata Samiti (Jaipur) has helped diffuse a few modified crutches with springs/ shock absorbers. These have been facilitated through GIAN West and GIAN North respectively. A number of grassroots innovations are also being diffused in different districts of the Jammu and Kashmir state as well in partnership with GIAN Cell J&K. Similar efforts are being mounted in other parts of the country as well.

# i. DIY (Do-It-Yourself) Manuals for innovations

In order to diffuse open source innovations and those acquired under the GTIAF, efforts

have been made to develop DIY manuals where detailed technical drawings detailing the process of making various innovations have been provided. This will help small fabricators and manufacturers to know and understand the use of right components and process. Such manuals have been developed for seed cum fertilizer dibbler, coffee cooker, vatsal tongs, motorcycle based multipurpose agricultural device, and side stand retracting device for two-wheelers. Efforts are on to produce more such manuals for other innovations.

## ii. Participation in exhibitions

NIF participated in DST's INSPIRE national camp organized at New Delhi during October 6-8, 2014 where about 1000 of most creative students of the country participated with their science based projects. NIF displayed a number of student innovations and put up poster display of innovations by children.

NIF setup an innovation exhibition at the Sattvik – Traditional Food Festival organized by SRISTI during December 20-22, 2014 at IIM Ahmedabad. A number of innovations like cow dung pot making machines, walnut cracker, modified double boom knapsack sprayer, coffee cooker, mileage enhancing kit, modified walker, crutches with shock absorbers, travelling with folding seat, etc were put on display along with their posters. An idea competition was also organized for school children, which met with an overwhelming response.





NIF's stall at Inspire Camp 2014, New Delh.





NIF's participation in the Indian Science Congress 2015, Mumbai

NIF participated in the Indian Science Congress 2015 organised by the University of Mumbai during Jan 3-7, 2015. NIF team set up on display about 25 innovations from various sectors along with posters of many other innovations. About five thousand people visited the exhibition, which helped generate business leads for many innovations. A number of volunteers from different parts of the country could also be mobilized during the event.

## iii. Media

Like previous years, this year also NIF team engaged with media (both print and electronic) to bring out articles and stories on grassroots innovations and about its work. The second season of Teenovation serial on Zee Q channel profiling IGNITE awardees concluded with rave reviews.

Memoranda of Understanding were also signed with TBI (thebetterindia.com) and Times Internet Ltd for popularizing stories of innovations. Thebetterindia.com is an online portal for sharing inspiring stories and positive news. The collaboration proposes to periodically publish stories on grassroots innovations to reach a wider audience. The partnership with Times Internet Ltd, owners of The Times of India and The Economic Times websites, was intended for sharing content on grassroots innovations to reach a global audience and also to partner in various innovations related competitions. To start with, NIF was the knowledge partner in The Economic Times and Siemen's Great Minds Long Miles competition for original technological problem solving ideas and innovations.

# **Emerging Initiatives**



NIF and Bhagwan Mahaveer Viklang Sahayata Samiti MoU

With financial support from the DST, NIF Incubation and Entrepreneurship Council (NIF-ientreC) was registered as Technology Business Incubator with the certificate of incorporation under Ministry of Corporate Affairs, Gol. The TBI will identify potential technological ideas and innovations of grassroots innovators, socially relevant and technological cutting edge ideas and innovations of school and technology students. The Board of Directors of company under the Chairmanship of Prof Anil K Gupta, Executive Vice Chair-NIF includes Prof P K Sinha, IIM-A, Dr. Vipin Kumar, Director-NIF and Er. Rakesh Maheshwari, Innovation Officer-NIF.

NIF entered into an understanding with Gujarat Livelihood Promotion Company Limited (GLPC) on April 19, 2014 for diffusion of open source technologies, introduction of relevant innovations for expanding livelihood options, reducing transaction cost of farmers by sharing innovative practices, spotting creative people from the villages from various pockets of the Gujarat state among other things.

NIF and University of Mumbai (UoM) entered into an understanding on May 12, 2014 to collaborate to pursue research and teaching in the field of inclusive innovation management. Under the collaboration, a post graduate course on Inclusive Innovation and Knowledge Management would be conducted and the degrees would be conferred by UoM. All eligible faculty at NIF and SRISTI - Sadbhav - Sanshodhan Natural Products Laboratory would

be recognized as PhD guides by University of Mumbai, for undertaking various research activities on innovations. An innovation club may also be opened in different colleges of the UoM.

NIF and Bhagwan Mahaveer Viklang Sahayata Samiti (BMVSS), Jaipur entered into an understanding on November 17, 2014 to collaborate and make efforts for the promotion of grassroots and student innovations pertaining to disability, rehabilitation, and other related issues. Under the collaboration, NIF would share with BMVSS the innovations pertaining to disability, rehabilitation, and other related issues. BMVSS would then identify innovations to be taken forward for diffusion through various channels.

NIF entered into an understanding with the Royal University of Bhutan (RUB) to establish a basis of co-operation and collaboration on November 8, 2014 in presence of Hon'ble President of India at Thimpu, Bhutan. Both NIF and RUB agreed for collaboration in strategic planning for the advancement of creative thinking among individuals, building capacity for scouting and documentation of creative technological ideas, innovations and outstanding traditional knowledge practices, sharing open source innovative technologies to meet needs of the common people from NIF's pool of technologies acquired under Grassroots Technological Innovation Acquisition Facility (GTIAF), and creating new platforms for creative ideas and innovations to be recognized and showcased periodically and ultimately increasing the pool of commercially viable innovations.

# Recognitions to grassroots innovators

IGNITE Awardee Masira bi Hanif Patel, a student of MI Teli English Medium School, Bhusaval was awarded with the National Child Award of exceptional achievement 2014 in the field of Innovation. The award was presented by Shri Pranab Mukherjee, the Hon'ble President of

India on Nov 14, 2014 at Rashtrapati Bhawan New Delhi. Another IGNITE awardee, Shalini Kumari, from Patna, Bihar won the IMC Inclusive Innovation Award 2014 (in category Z) for her walker with adjustable legs.





Masira and Shalini receiving their awards

# The Third International Conference on Creativity and Innovation at Grassroots [ICCIG]

NIF supported Indian Institute of Management, Ahmedabad, in organising the Third International Conference on Creativity and Innovations at the Grassroots (ICCIG) during Jan 19-22, 2015 at the IIMA campus. This event also marked the twenty five years of the Honey Bee Network. The third ICCIG pooled the insights from the ground and also the global playfields of ideas, institutions and initiatives to give greater voice, velocity and visibility to the creativity of common people, innovative teachers, cultural achievers, community institutions, technology youth and others.

Participants from US, UK, Russia, South Africa, Canada, Germany, France, China, Brazil, Portugal, South Africa, Singapore, Malaysia, Indonesia, Zimbabwe, Togo, Nepal, Ethiopia, Bangladesh, Mali, Nigeria, Italy, and Sri Lanka attended the conference. An exhibition of technological, institutional, social and cultural innovations/practices was also organized on the occasion. Educational curriculum in most states still does not include any example of innovations by common people or even children. This is a lacuna, which hopefully will be overcome, in coming years.

Over 250 delegates from all over the world participated in the conference. The exhibition featuring technological (grassroots and technology students), cultural and educational innovations was also setup near the venue. A special poster exhibition was there depicting the journey of the Honey Bee Network over the last two and a half decades.

















Sessions and Innovation Exhibition during ICCIG 3

# **Second National Social Innovation Conference**

The first national conference on social innovation was organized by IIMA with NIF support in collaboration with PIC, ILCI at YASHADA, Pune on November 17, 2013 to identify the gaps in developmental chain. The conference was divided into four sessions: Sahajta, Saralta, Samvedna, and Sampreshan. The first conference was attended by public institutions, for profit, not for profit organizations, and non-governmental organizations (NGOs). The purpose was to discuss and debate the challenges faced in meeting the gaps in inclusive development to develop guidelines for filling those gaps in future.

Following the success of the first conference, the second national conference by IIM A on social innovation was also held at YASHADA, Pune on November 17, 2014 supported by NIF in collaboration with PIC and ILCI. The

conference was chaired by Dr. R. A. Mashelkar and co-chaired by Shri Devendra Raj Mehta of Bhagwan Mahaveer Viklang Sahayata Samiti, the makers of the Jaipur Foot, with whom NIF also signed a MoU at the event. Prof. Anil Gupta briefed and highlighted the key issues faced in the developmental chain. The conference was divided into six sessions: Samvedna, Sahajta, Saralta, Sahyog, Swachhata and Sampreshan. Several representatives of public institutions, private organizations (for profit and not for profit) and startups participated in the seminar. The platform helped the representatives and collaborators to engage with each other and disseminate their good work, seek help in case of scaling up, and develop an ecosystem. NIF is expected to benefit from the conference as an enriched social innovation ecosystem acts as an enabler for grassroots innovations.

# Institutional Policies

Official language policy: For implementing the Official Language Policy of the Government, NIF has taken quite a few initiatives. As NIF staff comprises professionals from many states speaking different languages, Hindi is being popularized through various conventional means.

All posters and dissemination material of NIF are available in both Hindi and English. Efforts are being undertaken to have all other publications in Hindi as well as other regional languages. NIF also supports dissemination of a SRISTI

Innovations' Hindi publication, Soojh Boojh aas paas ki about grassroots innovations in the Hindi speaking belt.

Additionally, NIF makes concerted efforts to promote regional languages as well. All letters received by NIF in local languages are replied in the same language. For this the services of translators are taken. NIF also supports the publication of newsletters in six regional newsletters viz. Oriya, Telugu, Tamil, Kannada and Malayalam and Gujarati for wider dissemination.

# **Administrative Matters**

#### i. Recruitment of Staff

- Interviews for the positions of Fellows, Research Associates, Managers etc., were conducted on July 15 and 16, 2014 where 23 candidates were selected. Another round of interviews was conducted on November 26, 2014 where 5 Research Associates were selected.
- The meeting of Departmental Promotion Committee (DPC) for review of ACR of Shri Hardev Choudhary, Innovation Officer/Scientist C was held on January 22, 2015. The committee recommended the confirmation of Shri Hardev Choudhary.

Subsequent to the Chairperson's approval, Shri Hardev Choudhary was confirmed w.e.f. his date of joining as Innovation Officer/Scientist C at NIF.

### ii. Government Related activities

NIF submitted the Annual report 2013-14 in Hindi and English, the Review statements in Hindi and English, the inputs for DST's Annual Report 2014-15, Outcome budget of NIF for the period 2009-14 in the desired format, Budget estimates 2014-15 and 2015-16 to the Department of Science and Technology. NIF also provided inputs for DST's replies to Parliamentary questions.

# Volunteers Invited

It is apparent from the activities under report that despite becoming an integral part of Department of Science and Technology, NIF continues to draw upon volunteers in all fields and functions to achieve its goals. NIF is always looking for volunteers who wish to participate in any aspect of value chain around grassroots innovation and outstanding traditional knowledge. Interested colleagues can write to NIF at info@nifindia.org and offer to join this mammoth effort of making India Innovative by

contributing in scouting and documentation, mobilizing ideas and innovations from children in and out of school, informal sector, rural areas or urban informal sector, value addition, validation, business development, dissemination; developing media strategy; designing products; filing patents or trademarks; writing stories; making films, or just walking with Honey Bee Network volunteers during shodhyatras every summer and winter.

# ANNUAL ACCOUNTS 2014-2015

# Independent Auditor's Report

# To the Governing Body of National Innovation Foundation-India

A Trust registered under the Bombay Public Trust Act, 1950, Regn. No. - F/7412/Ahmedabad A Society registered under the Societies Registration Act, 1860, Regn. No. - GUJ/7567/Ahmedabad

# **Report on the Financial Statements**

We have audited the accompanying financial statements of NATIONAL INNOVATION FOUNDATION-INDIA ("the Trust" or "the society"), which comprise the Balance Sheet as at 31<sup>st</sup> March, 2015, the Statement of Income and expenditure Account for the year then ended, and a summary of the significant accounting policies and other explanatory notes.

# Management's Responsibility for the Financial Statements

Management is responsible for the preparation of these financial statements in accordance with the Bombay Public Trust Act, 1950, the Societies Registration Act, 1860 and guidelines prescribed for preparation and presentation of financial statement for Central Autonomous Body issued by Ministry of Finance, Government of India. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentation of the financial statements that are free from material misstatement, whether due to fraud or error.

## **Auditors' Responsibility**

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Standards on Auditing issued by the Institute of Chartered Accountants of India. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Organisations preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Opinion

In our opinion and to the best of our information and according to the explanations given to us, the financial statements give the information required by the Act in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India:

- (a) in the case of the Balance Sheet, of the state of affairs of the Trust as at 31<sup>st</sup> March, 2015;
- (b) in the case of the Statement of Income & Expenditure Account, of the Excess of Expenditure over Income for the year ended on 31<sup>st</sup> March, 2015.



## **Report on Other Legal and Regulatory Requirements**

As required under section 33(2) of the Bombay Public Trust Act, 1950, we further report that –

- (a) The accounts are maintained regularly and in accordance with the provisions of the Act and the Rules.
- (b) The Income and Expenses are properly and correctly shown in the accounts.
- (c) The cash balance and vouchers in the custody of the authorised person on the date of audit were in agreement with the accounts.
- (d) Books, Deed, Accounts vouchers and other documents and records required by us were produced before us.
- (e) A register of movable properties of the trust duly certified by the trustee has been properly maintained.
- (f) There are no defects and inaccuracies mentioned in the previous audit report which need to be complied with.

- (g) The manager / trustee appeared before us and furnished necessary information required by us.
- (h) No properties of funds were applied for any object or purpose other than object or purpose of trust.
- (I) The amount outstanding for more than 1 year Rs. 1,11,08,554/- [includes Rs. 1,10,41,538/- on account of financial assistance under MVIF [Micro Venture Innovation Fund] sponsored by SIDBI [Small Industries Development Bank of India] and amount written off were Rs. NIL.
- (j) Tenders were invited wherever the repairs or construction involving expenditure exceeding Rs. 5000/- was taken up.
- (k) We have not come across any case of alienations of immovable property contrary to the provision of section 36 of the act.

Pursuant to section 12-E (2) of the Societies Registration Act, 1860, we further report that we have not come across any case of irregular, illegal or improper expenditure, or failure or omission to recover monies or other property belonging to the society or of loss or waste of money or other property thereof on the part of the governing body or any person.

For RAMANLAL G. SHAH & CO.

Chartered Accountants

Firm Registration No.: 108517W

Vinde L. Shal

Vivek S. Shah Partner

Membership No.: 112269

Place: Ahmedabad

Date: 2 2 AUG 2015



NATIONAL INNOVATION FOUNDATION - INDIA Regn.No.F/7412/Ahmedabad

**BALANCE SHEET AS AT MARCH 31, 2015** 

	Schedule No.		NR-Rupees March 31, 2015	INR Rupees As at March 31,2014
CORPUS/ CAPITAL FUND & LIABILITIES				
Corpus/Capital Fund	1		2,90,79,870	3,08,40,672
Earmarked Funds	2		12,85,08,337	9,34,47,299
Current Liabilities and Provisions	3		81,96,607	1,60,44,108
Total			16,57,84,814	14,03,32,079
ASSETS				
Fixed Assets Gross Block Less: Depreciation Net Block	4	3,10,12,495 1,97,03,811	1,13,08,684	2,99,86,248 1,75,68,618 1,24,17,630
Investments				
Current Assets, Loans, Advances and Other Assets	5		15,44,76,130	12,79,14,449
Total			16,57,84,814	14,03,32,079
Significant Accounting Policies and Notes on Accounts	11			

As per our report of even date For **Ramanlal G. Shah & Co.** Chartered Accountants Firm Regn. No. 108517W

Partner Vivek S. Shah Membership No. 112269

Place : Ahmedabad Date : 2 2 AUG 2015 Chartered or Accountered

The above Balance Sheet to the best of my/our belief contains a true account of the Funds/Liabilities and Assets/Property of the Trust

PRUSTEE National Innovation Foundation-India
Autonomous Body of Department of Science & Technology, Govt. of India
Satellite Complex, Satellite, Ahmedabad-15

NATIONAL INNOVATION FOUNDATION - INDIA Regn.No.F/7412/Ahmedabad

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON MARCH 31, 2015

	Schedule No.	For the ye	Rupees ear ended on 31, 2015	INR-Rupees For the year ended or March 31, 2014
INCOME				
Grant/ subsidies  Plan Grant from Department of Science and Technology [DST]  (Less: Amount Transferred to GOI DST Grant for fixed assets		6,43,81,000		9,49,00,000
representing expenditure on non-recurring items)		(21,70,796)	6,22,10,204	(45,29,234 9,03,70,766
Interest earned	6		-	-
Other Income	7			-
Total			6,22,10,204	9,03,70,766
EXPENDITURE				
Establishment Expenses	8		1,95,32,714	1,65,88,094
Recurring Expenses	9		3,46,67,112	6,28,89,700
Other Administrative Expenses	10		88,48,574	76,90,645
Depreciation			30,93,402	32,20,016
Total			6,61,41,802	9,03,88,455
Excess of Expenditure over Income transferred to Balance Sheet			(39,31,598)	(17,689)
Significant Accounting Policies and Notes on Accounts	11			

As per our report of even date For **Ramanial G. Shah & Co.** Chartered Accountants Firm Regn. No. 108517W

Partner Vivek S. Shah

Membership No. 112269 Place : Ahmedabad

2 2 AUG 2015

The above Balance Sheet to the best of my/our belief contains a true account of the Funds/Liabilities and Assets/Property of the Trust

RUSTEE Executive Vice Chairperson
National Innovation Foundation-India
Autonomous Body of Department of Science & Technology, Govt. of India
Satellite Complex, Satellite, Ahmedabad-15

SCHEDULE FORMING PART OF BALANCE SHEET AS AT MARCH	31, 2015		
	INR-Ruj As at March		INR-Rupees As at March 31,2014
Schedule: 1 - Corpus/Capital Fund:			
Corpus Fund     Balance as per last Balance Sheet     Add: During the year	-		-
2 Capital Fund Balance as per last Balance Sheet		4,33,294	4,33,294
3 GOI DST Grant for Fixed assets Balance as per last Balance Sheet Add: (Grant received on account of Non-recuring items)	1,95,74,588 21,70,796		1,50,45,354 45,29,234
4 Balance in Income and Expenditure Account Balance as per last Balance Sheet Add /(Less): Excess /(Deficit) transferred	1,08,32,790	2,17,45,384	1,95,74,588 1,08,50,479
from Income and Expenditure Account	(39,31,598)	69,01,192	(17,689 1,08,32,790
Total		2,90,79,870	3,08,40,672



CHEDULE FORMING PART OF BALANCE SHEET AS AT MARCH 31, 20	115		
STEED TO THE TAKE OF DELETING THE TAKE TO JULI			
	INR-Ru As at March		INR-Rupees As at March 31,201
hedule : 2 - Earmarked Funds :			
rmarked Funds			
CAPART Exhibition			
a Balance as per last Balance Sheet	-		(1,42,07
b Grant received	- 1		-
c Less: Expenditure/Utilisation towards objectives of fund	1		
i. Capital Expenditure	- 1		
Fixed assets	-		
ii. Revenue Expenditure			
Accomodation, Conference hall, stationery and printing	1		
and exhibition expenses	-		1,42,07
Administrative/ Institutional charges	-		-
Salaries & Wages	-		-
Travel expenses	-		-
Total of Expenditure	-		1,42,07
Recovarable from CAPART- [a+b+c]		-	-
DST & KAPL Project	1		
a Balance as per last Balance Sheet			(76,8
b Grant received	3 1		(/0,0:
c Interest on Grant			
d Less: Expenditure/Utilisation towards objectives of fund	-		
i. Capital Expenditure			
Fixed assets	_		
ii. Revenue Expenditure			
Consumable & Materials			76,8
Information & Documentation			70,0
Overhead			
Salaries & Wages	_		_
Travel expenses	-		
Total of Expenditure	•		76,8
Net Balance at the year end [a+b+c+d]			-
DST Seeds Project			20000000
a Balance as per last Balance Sheet	(89,200)		(89,2
b Grant received			-
c Less: Expenditure/Utilisation towards objectives of fund			
i. Capital Expenditure	1		
Fixed assets	0.75		i - i
ii. Revenue Expenditure			
Consumable & Materials	-		
Salaries & Wages	-		
Overhead	-		14
Travel expenses	-		
Total of Expenditure	-	22.5-2.43	-
Net Balance at the year end [a+b-c]		(89,200)	(89,2



NATIONAL INNOVATION FOUNDATION - INDIA Regn.No.F/7412/Ahmedabad			
SCHEDULE FORMING PART OF BALANCE SHEET AS AT MARCH 31, 20	15		
	INR-Rupe As at March 3		INR-Rupees As at March 31,2014
ontinue from previous page			
4 DST Project- Vet	(4.00.000)		// 00 250
a Balance as per last Balance Sheet	(1,09,268)		(1,09,268
b Grant received	•		
c <u>Less: Expenditure/Utilisation towards objectives of fund</u> I. Capital Expenditure	200		
ii. Revenue Expenditure	- 1		
Consumable & Materials			
Contigencies			_
Salaries & Wages	- 1		
Overhead	-		
Travel expenses	-		
Total of Expenditure	-		
Net Balance at the year end [a+b-c]		(1,09,268)	(1,09,268)
5 NMPB(Ayush) Project			
a Balance as per last Balance Sheet	(7,084)		(17,76,932
b Grant received	- '		23,50,000
c Less: Expenditure/Utilisation towards objectives of fund			
i. Capital Expenditure			
Fixed assets	-		-
Others			
ii. Revenue Expenditure			
Consumables			
Contingency	-		3,88,869
Manpower	5,594		26,000
Overhead	-		1,50,000
Travel	-		15,283
Workshop	1,490		-
Total of Expenditure	7,084		5,80,152
Net Balance at the year end [a+b-c]		-	(7,084)
6 DST Project- Techpedia			
a Balance as per last Balance Sheet	30,61,614		
b Grant received	1.00		30,61,614
c Less: Expenditure/Utilisation towards objectives of fund			
i. Capital Expenditure		\	
Fixed assets	-		-
Others	-		-
ii. Revenue Expenditure	264 644		
Communication & Contingency	2,61,614		0.40
Manpower	10,20,000		
Portal Management	11,00,000		
Travel	5,00,000		
Workshop Total of Europediture	1,80,000		-
Not Balance at the year and [a+b-c]	30,61,614	reav F	30.61.614
Net Balance at the year end [a+b-c]		ue to next page	30,61,614



NATIONAL INNOVATION FOUNDATION - INDIA Regn.No.F/7412/Ahmedabad

SCHEDULE FORMING PART OF BALANCE SHEET AS AT MARCH 31, 2015

			-Rupees	INR-Rupees
		As at Ma	rch 31, 2015	As at March 31,20
inue from previous page				
ICMR- Herbarium and Plant Repository Pr	roject	VDC-9500 (24 D 0 27 D 0 0 D 0 D		JACOUROUS POR
a Balance as per last Balance Sheet		(7,00,420)		50,87,3
b Grant received		-		
c Less: Expenditure/Utilisation towards object	tives of fund			
<ol> <li>Capital Expenditure</li> </ol>				
Fixed assets		-		44,54,
Others		-		
ii. Revenue Expenditure				
Consultancy Charges		-		
Contingencies				7,75,
Overhead	-	-	1	.,,,
Travel				5,58,
110101	Total of Expenditure	-		57,87,
Net Balance at the year end [a-c]	Total of Experience		(7,00,420)	(7,00,
Net balance at the year end [a c]			(7,00,420)	(7,00,
ICMR- Sristi Laboratory Project				
a Balance as per last Balance Sheet	I	941		46.50
b Grant received		941		46,52,
	three of freed	5.0		
c Less: Expenditure/Utilisation towards object	tives of fund			
i. Capital Expenditure			V.	HASAYO SANIRON
Fixed assets				46,51,
Others		-		
<ol><li>Revenue Expenditure</li></ol>	- 1			
Overhead		941		
	Total of Expenditure	941		46,51,
Net Balance at the year end [a-c]				
Rajat Jayanti Vigyan Sancharak Fellowsh	ip			
a Balance as per last Balance Sheet		(93,607)		
b Grant received		-		
c Less: Expenditure/Utilisation towards object	tives of fund			
<ol> <li>Revenue Expenditure</li> </ol>		93,607		93,
	Total of Expenditure	93,607	4	93,
Net Balance at the year end [a+b-c]		-		(93,
Less: Return the Balance of fund to DST				
Balance			-	(93,
DST Project- wellbeing of Tribal Commun	ities			
a Balance as per last Balance Sheet				
b Grant received		1,40,00,000		
c Less: Expenditure/Utilisation towards object	tives of fund	20.00		
i. Capital Expenditure				
Fixed assets	I	-	\(\lambda\)	
Others	I			
ii. Revenue Expenditure				
Consumables	I	1,07,17,642		b
Salaries		11,70,000		
Travel	I			ř.
HOVE	Total of Expenditure	11,49,963		
Net Balance at the year end [a-c]	Total of Expenditure	1,30,37,605	9,62,395	
Hariom Ashram				
a Balance as per last Balance Sheet	1	-		
b Grant received		1,02,50,000		
	b	1,02,00,000	))	
c Less: Expenditure/Utilisation towards object	rives of fund			

	NATIONAL INNOVATION FOUNDATION - INDIA
	Regn.No.F/7412/Ahmedabad
-	

## SCHEDULE FORMING PART OF BALANCE SHEET AS AT MARCH 31, 2015

		R-Rupees arch 31, 2015	INR-Rupees As at March 31,2014
ii. Revenue Expenditure  Total of Expenditure  Net Balance at the year end [a-c]	-	1,02,50,000	
12 ICMR FOIN Project  a Balance as per last Balance Sheet b Grant received c Less: Expenditure/Utilisation towards objectives of fund Net Balance at the year end [a-c]	14,30,000 14,30,000	-	
a Balance as per last Balance Sheet b Grant received c Less: Expenditure/Utilisation towards objectives of fund Net Balance at the year end [a-c]	61,55,000 70,513	60,84,487	
14 DST Project - Mobile Exhibition in Tribal areas  a Balance as per last Balance Sheet b Grant received c Less: Expenditure/Utilisation towards objectives of fund i. Capital Expenditure ii. Revenue Expenditure  Total of Expenditure	90,00,000	-	
Net Balance at the year end [a-c]		90,00,000	
a Balance as per last Balance Sheet b Income during the year from advances and investments made on account of funds Net Balance at the year end [a+b]	7,93,56,862 58,71,311	8,52,28,173	7,32,68,120 60,88,742 7,93,56,862
16 Innovation Fund Balance as per last Balance Sheet Add: Amount received during the year Add: Amount transferred during the year[Refer Note:1(g) Schedule -1 Less: Amount incurred during the year	1,20,27,461 11,70,974 52,79,735 5,96,000	1,78,82,170	64,44,714 4,08,000 51,74,747 - 1,20,27,461
		12,85,08,337	9,34,47,299





SCHEDULE FORMING PART OF BALANCE SHEET AS AT MARCH	31, 2015		
	INR-Rup As at March 3		INR-Rupees As at March 31,2014
Schedule: 3 - Current Liabilities and Provisions:			
Advances received for			
Innovator fellowship fund	27 45 004	6,700	6,700
Outstanding Expenses	37,45,986		
Sundry Creditors	21,85,298	59,31,284	30,43,187
Others		33,31,204	30,43,107
Bank Book Overdraft	1 1	54	
Union Bank of India, Premchandnagar - SB A/c. No.724	22,58,623	22,58,623	1,28,71,295
Other Liabilities			00 10: 300
Employee's NPS Deduction	- 1		61,463
NPS Payable Account	-		61,463
		-	1,22,926
Total		81,96,607	1,60,44,108



SCHEDULE FORMING PART OF BALANCE SHEET AS AT MARCH 31, 2015

								The second secon	
Particulars	Balance as on 01-04-2014	Additions during the year	Deductions during the year	Gross Block as on 31-03-2015	Depreciation up to 31-03-2014	Deductions during the year	Depreciation for 2014-15	Total Depreciation up to 2014-15	Net Block As on 31-03-2015
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Computers & Ancillary		•							
Assets	797 57 77	19 11 937	(4 62 863)	85 06 871	69 46 978	(4 59 620)	8 75 ROF	73 63 164	11 43 707 00
Networking equipment	707.02.11	35 784	(1,02,003)	11 76 401	376,01,50	(070'66'1)	1 65 340	10 58 205	1 18 286 00
Scanner Scanner	3.63.990	10/100		3,63,990	1 19 661	•	231362	3.51.023	12,967.00
Software	33,27,960	•	1	33,27,960	30,13,088	1	1,88,923	32,02,011	1,25,949.00
Firmiture & Fixtures and									
Dead Stock									
Furniture & Fixtures	21.19.194	4.10.000		25, 29, 194, 13	9.78.704	•	1.43.132	10.71.836	14.57.358.13
Electrical Installations	69,610	-	.1	69,610	37,701	•	3,191	40,892	28,718.00
1	\$				3			×	
Air Cooler	20000	1 44 000	0	2 64 904	1 01 457		20 502	1 40 050	2 23 845 00
Ralloon	4,20,004	7,44,000		35 438	1,01,43/		1 854	1,40,939	10 508 00
Comon	127 35 51	32 450	(4 42 570)	10,420	5 07 214	(000 1/2)	1,00,1	350 15 3	6 12 26E 00
FDARY System	1 62 240	054,26	(026/61/1)	1 62 240	95 871	(667,41)	11 457	922,420	64 921 00
Followent	46 69 343	1 61 298	(76.062)	47 54 570 20	031070	(30 116)	5 76 741	14 68 704	32 85 875 20
Fab Lab Equipment	16.14.676	ייייייייייייייייייייייייייייייייייייייי	120/07/	16.14.676	8.35.019	(077/00)	1 16 949	9.51.968	6.62.708.00
Fax Machine	36,907	•	•	36,907	28,347	•	1.284	29.631	7,276,00
Fire Extinguisher	18,505	•	•	18,505	11,541	•	1,045	12,586	5,919.00
Photo Copying Machine	4,32,402	•	(3,75,402)	22,000	3,49,338	(3,15,362)	7,957	41,933	15,067.00
Public Address System	60,111	•	•	60,111	39,140	•	3,146	42,286	17,825.00
Refrigerator	39,010	•	1	39,010	22,619	•	2,459	25,078	13,932.00
Sony LCD	91,000	•		91,000	59,253	. :	4,762	64,015	26,985.00
Tape recorder	39,827		(3,400)	36,427	28,331	(2,214)	1,635	27,752	8,675.00
l elephone/mobile Instrument	7,43,938	55,748	(1,13,302)	6,84,404	3,18,447	(965'/9)	64,430	3,15,279	3,69,125.00
Books	1	10,927		10,927	•		3,278	3,278	7,649.00
Vehicles									
Activa Honda	44168	. 1	1	44,168	31071	٠	1,965	33,036	11,132.00
Bajaj Pulser	68289		•	68,289	48039	•	3,038	51,077	17,212.00
Honda city	10,37,399	•	,	10,37,399	4,48,088	•	88,397	5,36,485	5,00,914.00
Tata safari	13,11,519	.11	•	13,11,519	5,66,490	•	1,11,754	6,78,244	6,33,275.00
Tata Indica	5,45,341	٠	•	5,45,341	2,10,433	•	50,236	2,60,669	2,84,672.00
Mobile Exhibition Van	27,09,873	1		27,09,873	8,94,668	•	2,72,281	11,66,949	15,42,924.00
Hero HF Deluxe	•	52,547	•	52,547	•	•	3,941	3,941	48,606.00
- 1		58,105		58,105			8,716	8,716	49,389.00

NATIONAL INNOVATION FOUNDATION - INDIA Regn.No.F/7412/Ahmedabad

SCHEDULE FORMING PART OF BALANCE SHEET AS AT MARCH 31, 2015

		NR-Rupees March 31, 2015	INR-Rupees As at March 31,2014
Schedule: 5 - Current Assets, Loans, Advances and Other Asset	s:		
1 Cash and Bank Balances Cash Balance on hand Balance with Banks In Saving Accounts		-	-
- Kotak Mahindra, Vastrapur - SB A/c. No.762	51,598	52	52,047
In Current Accounts		51,598	52,047
<ul> <li>- Axis Bank, Vastrapur - A/c. No.1548</li> <li>- Axis Bank, Vastrapur - A/c. No. 8099 - MVIF</li> <li>- SBI, IIM - A/c. No.30379920229</li> </ul>	2,00,535 18,49,813		2,01,500 20,45,084
In Fixed Deposit Accounts		20,50,348	22,46,584
- From NIF funds - From MVIF funds	6,68,21,959 7,06,03,543		4,72,17,301 6,39,06,302
		13,74,25,502	11,11,23,603
Total		13,95,27,447	11,34,22,234
2 Loans, Advances and Other Assets			
Advance recoverable in cash or in kind or for value to be received	_	1943164	8,55,812
Advances to Innovators from MVIF Funds [SIDBI]		1,18,01,538	1,25,61,697
Advance payment of Income Tax		12,03,981	10,74,706
		-	-
Total		1,49,48,683	1,44,92,215
Total		15,44,76,130	12,79,14,449



NATIONAL INNOVATION FOUNDATION - INDIA Regn.No.F/7412/Ahmedabad

SCHEDULE FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON MARCH 31, 2015

	INR-Rupees For the year ended on March 31, 2015	INR-Rupees For the year ended on March 31, 2014
Schedule: 6 - Interest earned:		
Interest earned on 8% Govt. of India saving bond Interest on fixed deposits with banks Interest on Saving Bank account Interest earned on others Total Interest Earned  Less: Transfer to Innovation Fund Total	52,69,925 9,810 - 52,79,735 (52,79,735)	48,78,741 94,176 22,100 49,95,017 (49,95,017)
Schedule: 7 - Other Income:		
Administrative overhead recovery from Earmarked Projects Miscellaneous Income Profit on sale of Fixed Assets  Less: Transfer to Innovation Fund Total	-	1,50,000 - 29,730 1,79,730 (1,79,730)



NATIONAL INNOVATION FOUNDATION - INDIA Regn.No.F/7412/Ahmedabad

SCHEDULE FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON MARCH 31, 2015

	INR-Rupees For the year ended on March 31, 2015		INR-Rupees For the year ended on March 31, 2014
Schedule: 8 - Establishment Expenses:			
Basic Pay Consultancy Charges Contractual Payment Dearness Allowance Employer's NPS Contribution Fellowship House Rent Allowance Medical reimburesement/Medical treatment Exp. Transport Allowance		34,26,513 2,23,334 27,84,078 36,08,478 7,03,834 70,39,552 6,85,310 2,21,945 8,39,670	32,28,176 5,88,355 20,77,268 29,74,375 6,20,248 58,88,550 6,45,622
Total		1,95,32,714	1,65,88,094
Schedule : 9 - Recurring Expenses :	_		
1 Business Development Clearing House /Workshop with emt. Benchmarking and Market Research Demonstrations (BD) Online Catalogues Packaging, Labeling and Branding Student Involvement for Business Plans Travel (BD)	2,29,190 11,21,751 14,78,405 66,000 - 2,21,265 8,11,234	39,27,845	24,19,819 6,11,819 67,972 14,663 6,18,814 9,32,170 46,65,257
2 Dissemination & Social Diffusion	20,125 1,35,695 - 12,63,666 2,50,235 4,74,561 2,59,519 33,536 2,155 14,51,078 740 -	24,37,337	49,37,544 10,72,667 5,82,781 14,86,923 6,77,442 1,68,167 5,52,086 18,00,000 1,12,77,610
Filling Trade Mark and Geographical Applications	1,08,968	3	



NATIONAL INNOVATION FOUNDATION - INDIA Regn.No.F/7412/Ahmedabad

SCHEDULE FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON MARCH 31, 2015

IR-Rupees year ended on ech 31, 2015	INR-Rupees For the year ended on March 31, 2014	
_	77	
6	3,08,87	
3	13,65,38	
2	4,37,92	
	8,00	
4	18,319	
6	1,61,09	
23,75,311	22,99,584	
9	25,72,208	
0	44,22,650	
3	37,413	
4	13,39,05	
8	10,47,873	
2		
2	12,97,750	
	35,42,600	
3	50,73,47	
98,56,321	1,93,33,028	
_	0.450 500 600 600	
8	6,84,969	
6	1,40,24,70	
4	10,66,50	
0	18,36,14	
1)	57,22,64	
38,94,647	2,33,34,962	
-		
1		
9	BCV	
T(S)		
7	_	
.	-	
2	-	
0	-	
0	(1,58,75)	
3		
3	-	
5	-	
1,04,45,860	(1,58,750	
1,66,850		
3.46.67.112	6,28,89,700	
	3,46,67,112	



**NATIONAL INNOVATION FOUNDATION - INDIA** Regn.No.F/7412/Ahmedabad

SCHEDULE FORMING PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED ON MARCH 31, 2015

	INR-Rupees For the year ended on March 31, 2015		INR-Rupees For the year ended or March 31, 2014	
Schedule: 10 - Other Administrative Expenses:				
Auditors Remuneration				
Statutory Audit Fees	33,708		30,00	
Internal and Concurrent Audit Fees	2,28,429		1000	
Other certification fees		2,62,137	2,15,73	
Accomodation		2,87,026	33-0-2-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0	
Bank Charges		1,979	4,10	
Building repairing charges		2,85,463	12,89,19	
Conveyance Expenses		1,02,139	48,83	
Electricity and Power		2,32,036	2,20,25	
G.C. Meeting Expenses		2,77,183	2,84,19	
Insurance Expenses		1,22,585	1,14,51	
Office Expenses		10,16,341	5,43,26	
Postage Expenses		3,37,862	2,26,14	
Printing and Stationary		5,79,745	9,91,59	
Recruitment Expenses		28,18,218	8,27,40	
Rent, Rates and Taxes		11,18,700	18,84,95	
Repairs and Maintenance		1,44,638	1,54,06	
Security Expenses		8,30,746	5,22,76	
Telephone and Communication Charges		1,02,686	64,44	
Travel Expenses			5,99	
Vehicles Running and Maintenance		3,29,090	2,63,17	
Total		88,48,574	76,90,64	



## **NATIONAL INNOVATION FOUNDATION - INDIA**

F.Y. 2014-2015

	Rs.	Rs.
North East Region		
Areca Nut Peeling Machine	-12500	
Bamboo Strip/Stick Making Machine	5028	
Amount lying with coordinating agency	5622	
Muga Reeling Machine	20000	
Pomegranate Deseeding	12000	30150
North Region		
Fire Cracker Device	7000	
Amount lying with coordinating agency	15480	
Herbal Growth	162407	
HNP-Performance Enhancer for Petrol Engine- Harinar	141767	
Modified Solar Cooker	5047	
Multi Crop Thresher	584931	
Multi Seed Drill	385268	
Safety Valve for Stove	16000	
Trench Digger Machine	993480	2311380
Western Region		
Bicycle Hoe	15000	
Healthcare Chair	37390	
Mitticool Clay	1991	
Kranti Spray Pump	-6044	
Paresh Panchal- Incense Stick Macking Machine	250000	
Stencil Cutting Device- Nazim Shaikh	168950	
Sugarcane Rotator	47486	
Amount lying with coordinating agency	-57181	457592
BALANCE C/F		2799122



# NATIONAL INNOVATION FOUNDATION - INDIA

F.Y. 2014-2015

ADVANCES A/c. MVIF PROJECTS		
	Rs.	Rs.
BALANCE B/F		2799122
Southern Region		
SEVA (Multipurpose Cooking Vessel-Abdul Razak)	42150	42150
Projects under direct supervision of NIF		
Bamboo Agarbati Stick Making Machine	300000	
Bhagwan Singh Dangi- Reaper Winrower	300000	
B.Mohanlal- Marine Reversible Reduction Gearbox	730000	
Bommagani Mallesh- Remote for electronic gadgets	150000	
Clear Banana Alkali- Basanta Sharma	96050	
C.V.Raju- Anything by HAnd	380045	
Dadaji Khobragade- DRK 2008 Paddy Variety	200000	12
Deepak Bharali- Innovative Design Making Machine	915010	
Director, SMIT- Ajooba Tube Light Frames	182032	
D N Venkat- Multi Tree Climbing Instrument	370000	
Dr. K L Rao- Honeybee A P	9000	
G Chandrashekhar- Passiflora Foetida	360000	
Huma Toilet Cleaner- Md. Motin Ahmed	24000	
Imli Toshi Namo- Multi Use Hand Free Visor	13500	
Iron Mesh Making Machine- N. Indrakumar Singh	90000	
Jai Prakash Singh- Wheat Varieties	75000	
Jaydeep Mandal	550000	
Jayprakash- Energy Efficient Stove	300000	
Mallesham- Laxmi Asu Machine		
Md.Fajlul Haque- Paddy Thresher	167534	
Mujib Khan- Retrofitted Kit in Car for Physically Challenged	804075	
Premsingh Saini- Phone Operated Switch	60000	
Rajkumar Rathore- Richa 2000	200000	
Rama Shankar Sharma- Modified Hand Pump	137172	
Shailendra Rakhecha- Animated T- Shirt	37000	
	185000	
Sugarcane Bud Chipper Device-Roshanlal Vishwakarma Tulsi Growth Promoter	900000	
	200000	
Umesh Chandra Sharma- Interlocking Bricks	400000	
Yellow Fourier Technologies P.LtdIndian Tea Makin	210000	
Arecanut Cutting machine-Wazeer	500000	
Turmeric and Ginger Planter - Indrajit Khas	-15152	
Walnut Dehulling Machine - Mushtaq Ahmad Dar	60000	
GIAN- Cell (J&K)	70000	8960267
TOTAL		11801538



		dule IXC Rule 32)		
	Statement of Income liable to contribution f		1 04 2014 to 21 02 201	-
	Name of the Public Trust: NATIONAL INNOVATION FOUNDATION - INDIA			IA
	I	Bungalow No. 1, Satellite Centre, Satellite Complex, Premchandnagar Road, Jodhpur Tekra, Satellite, Ahmedabad - 380015.		
			c, Allineaabaa - 500013	
	Regn.No.	F/7412/Ahmedabad	INR-Ru	nees
	Gross Annual Income		1	pees
	Plan Grant from Department of Science and Technolog	IDST1	6,43,81,000	
	Interest Income earned	37 [031]	1,11,51,046	
	interest income carried		1,11,51,040	
	Total Gross Annual Income			7,55,32,04
	Details of Income not Chargeable to Contribution und	der Section 58 and		
	Rule 32 :	der Section 30 and		
(i)	Donation received during the year from other public to	rusts and Dharmadas		
(ii)	Grants by Government and Local Authorities	asis and Diffinadas	6,43,81,000	
(iii)	Interest on Sinking or Depreciation Fund		0,45,61,666	
	Amount spent for the purpose of secular education		6,61,41,802	
(v)	Amount spent for the purpose of medical relief		0,02,12,002	
1.5	Amount spent for the purpose of veterinary treatment	t of animals.	1	
150 150	Expenditure incurred from donations for relief of distr			
8. 87.	scarcity, drought, flood, fire or other natural calamity.			
(vill)	Deductions out of income from lands used for agricult	tural purpose :		
(a)	Land Revenue and Local Funds/Cess			
(b)	Rent payable to superior landlord			
(c)	Cost of production, if lands are cultivated by trust			
(ix)	Deductions out of income from lands used for non-ag	ricultural		
(-1	purpose :	-17		
	Assessment, Cesses and other Government or Municip Ground rent payable to the superior landlord	oai raxes		
	Insurance Premium			
	Repairs at 10 per cent of gross rents of buildings		h	
	Cost of collection at 4 percent of gross rent of building	s lot out		
(0)	cost of conection at 4 percent of gross rent of building	s let out		
(x)	Cost of collection of income or receipts from securities	stocks etc.at 1		
V-7	percent of such income	utulut A		
(xi)	Deduction on account of repairs in respect of building	s not rented and		
	yielding no income at 10 per cent of the estimated gro			
	Total Income not chargeable to contribution.			7,55,32,04
		ALC.		, , , , , , , , , , , , , , , , , , , ,
	Gross Annual Income Chargeable to Contribution	3		
or Nat	tional Innovation Foundation	Z (Accountants) or	As per our report of ev	
	1 /	on let	For Ramanial G. Sha	
	Executive Vice Chairperson Foundation-	ndia EDABAO	Chartered Accountant	7.5
/	Executive Vice Chairpers.  National Innovation Foundation-I  National Body of Department of Science & Technology,  Autonomous Body of Department of Science & Ahmeda	Govt. of India	Firm Regn. No. 1085	17W
ruste	National National of Science & Islameda	bad-15	Vinde b. she	1
lass	National Innovation Foundation  National Innovation  National Innovation  National Innovation  National Innovation  Office of Technology,  Autonomous Body of Department of Science & Technology,  Aut		-	,
lace :	Ahmedabad Satellite South		Partner	
rate:			Vivek S. Shah	
			Membership No. 11	2269

2 2 AUG 2015

# **National Innovation Foundation India**

# Schedule: 11

# **Significant Accounting Policies and Notes to Accounts:**

# 1. Significant Accounting Policies:

## a) Basis of accounting

The financial statements are prepared under the historical cost convention, on the accrual basis of accounting in conformity with generally accepted accounting principles in India ('Indian GAAP') as applicable, and the relevant provisions of the Bombay Public Trust Act, 1950 and in accordance with the guidelines on accounting for the central autonomous bodies, issued by Ministry of Finance. The accounting policies have been consistently applied by the Foundation; and the accounting policies not referred to otherwise, are in conformity with Indian GAAP.

## b) Revenue recognition

All income and expenditure are recognized on accrual basis except in case of specific and conditional Grants. The un-spent amount of such Grant is liable to be returned or re-directed as per the directions of the Donor organisations. Accordingly the unspent amounts as on the date of Balance Sheet are shown as liability. Government grants/subsidies are accounted on realisation basis.

## c) Fixed assets and intangible assets

- i. Fixed assets are stated at cost, less accumulated depreciation. Cost includes all expenditure necessary to bring the asset to its working condition for its intended use. Fixed assets acquired from earmarked funds are shown as utilisation of funds in Schedule-2 in respective earmarked funds.
- ii. Any loss or gain on exchange rate fluctuation attributable to fixed assets is adjusted to the cost of fixed assets.

# d) Depreciation and amortisation

Depreciation is provided on the Written Down Value (WDV) at rates and in the manner prescribed in Appendix I to the Income tax rules, 1962.

# e) Plan/Non-Plan grant received from the Government

Plan Grants received during the year are credited to revenue account except grants utilised for acquisition of capital assets during the year is credited to respective "Capital Fund" account.

### f) Earmarked Funds

Funds/grant received for specific projects are credited to separate account and utilisation of the same also debited to respective funds/grant accounts. Outstanding amount in those funds/grants shows amounts still to be incurred on running projects. Further grant is yet to be released in respect of project which shows debit balance.

## g) Innovation Funds

Interest earned, administrative fund of projects and other income during the year has been credited to Innovation Funds.

## h) Fellowships and scholarships

Sponsored fellowships and scholarships are accounted against the sponsored project fund/grant. Fellowships and scholarships paid out of the organisation funds are treated as revenue expenditure and debited to "Establishment Expenses".

# I) Expenditure on Technology acquisitions

Payments made for acquiring rights in innovated products from the innovators for making it available to public at large at low cost or no cost are charged to revenue account in the year of payment as recurring expenditure as "Technology acquired under Technology Acquisition Fund".

#### ) Investments

The investments are stated at cost.

# k) Retirement and other employee benefits

The foundation has not made any retirement benefits payable to the employees. The retirement benefits are accounted for as and when they become due and payable to the employees.

## I) Foreign Currency Transactions

Transactions denominated in foreign currency are accounted at the exchange rate prevailing at the date of the transaction.

#### 2. Notes on Accounts:

- a) In the opinion of the trustees, the current assets, loans and advances have a value on realisation in the ordinary course, at least equal to the amount at which they are stated in the Balance Sheet.
- b) In opinion of the trustees, there is no contingent liability as on the date of balance sheet.
- c) The balances of loans and advances to innovators are subject to confirmation / reconciliation and the necessary adjustments,

if any, in respect thereto will be carried out in the year in which they are settled.

### d) Taxation

In view of there is no taxable income under Income Tax Act, 1961, no provision for income tax has been considered necessary.

e) Estimated amount of Capital contracts to be executed Rs. Nil

Schedule – 1 to 11 are annexed to and form an integral part of the Balance Sheet as at March 31, 2015 and the Income and Expenditure Account for the year ended on that date.

For RAMANLAL G. SHAH & CO.

Chartered Accountants

Firm Registration No.: 108517W

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Vivek S. Shah

Partner

Membership No.: 112269 Place: Ahmedabad

Date: 2 2 AUG 2015

Trustee Na

Executive Vice Chairperson
National Innovation Foundation-India
Autonomous Body of Department of Science & Technology, Govt. of India
Satellite Complex, Satellite, Ahmedabad-15

Place : Ahmedabad.

Dated:

