



Local Innovations for sustainable development

Connecting, creating, collaborating, co-designing and
communitizing

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Why have the basic needs of the majority of people remained unmet:

Is it because people lack imagination, ideas, innovations or is it because the institutions which can convert their ideas into enterprises – social or economic, individual or collective or missing?

Policy Initiatives by India:

1. Creating the Institutions and schemes for providing handholding support to innovators
2. Access to local or nearby labs and workshops to add value to their knowledge or fabricate tools for meeting their need
3. Access to local language multimedia tools / databases of traditional knowledge or grassroots innovations by other communities in the region or around the world

4. Flexible access to natural resources governed by state or large private owners
5. Access to micro venture capital and support for new product development
6. IP protection without preventing people to people learning but ensuring benefit sharing with corporations

Traditional inertia is giving way and innovations are being recognized slowly and slowly as instruments of empowerment and change. But not enough.

Chunauti: Challenges for unfolding and augmenting technological innovation for society

- persistent technological problems faced by socially disadvantaged groups must be posed as challenges accompanied by attractive awards to show national commitment to their resolution in a time bound manner
- Technology Youth should also be engaged through platforms like techpedia.in to various problems of informal sector , MSME and other disadvantaged groups



Needs of Society





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Assam to Gujarat

Low cost Wind Mill by Mehtar Husain and his brother

Installed 35 wind mills in the costal areas of Gujarat to facilitate pumping of brine water for making salt

Patent (1367/KOL/2008) filed in the name of the innovators; provided workshop support , Award in NIF 's National Award Function, Participated in President House exhibition 2010





Grassroots Technological Innovation Acquisition Fund to make Innovations opensource



Open source innovation
Onion transplanter -
solving labour problems

PS More, Maharashtra

It is a tractor drawn semi- automatic unit, which can perform three functions at a time viz. transplanting the onion, applying the fertilizer and making the irrigation channels.

Technology declared open source by the innovator for the use of farmers, many fabricators in Pune, Nasik, Ahmednagar districts selling this machine

Manual Paddy transplanter

Photo Singh, Uttar Pradesh

With the back and forth movement of the machine, mechanical fingers are actuated, which pick seedlings from the tray and transplant these into the puddled soil bed.



NIF facilitated its on-field testing in Gujarat by farmers and based on their suggestions, the machine is being modified to suit the local needs.

IIT Kharagpur is trying to add value to this device.

It has to be noted that more than ninety per cent paddy is still transplanted manually by women in a back bending posture











Joint product development and
commercialization through
appropriate agency

Multipurpose Processing Machine



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Innovator Shri Dharamveer, Yamuna Nagar, Haryana

- Capable of processing various herbs like juice and gel of aloe vera, juice of *amla*, *jamun*, mango, tomato, orange, etc. and extracting essence of flowers and other herbs.
- Variants 50 and 150 lph capacity
- Price: Rs 70,000/- to 150,000/-
- Sold in 12 states of India and in Kenya.



MoU with Suntec Agri Equipments



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Significant Feature of the MoU are,

1. Suntec Agri Equipments Pvt Ltd will sell the milking machines through their 55 Agrimart retail outlets and 600 dealer network spread across the country that sells farm products.
2. On earning PAN India exclusive rights, Suntech will take 500 pieces machines per month from Ksheera enterprise and 100 pieces which will be contributed by current 8 dealers of Ksheera.



Post MoU development between Tata Agrico and NIF, Sugar cane bud chipper



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Significant Feature -

1. Co branding with TATA Agrico
2. Standards for quality control.
3. Marketing by TATA though retail chain

MoU between Matsyafed and B. Mohanlal (Marine Inboard diesel engine and Z Drive

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Herbavate: a skin ointment to cure eczema



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Based on the knowledge of seven innovators viz. 1. Amratbhai Shankarbhai Rawal, Mehsana Gujarat. 2. Kunjubhai Kakadiyabhai Bhoya, Dang Gujarat 3. Pujabhai Dabhi, Sabarkantha, Gujarat 4. Karshanbhai Parmar, Sabarkantha Gujarat 5. Laxmanbhai Pagi, Panchmahal, Gujarat 6. Lilabhai Rawal, Patan Gujarat 7. Lakhabhai Becharbhai Khatana, Bhavnagar Gujarat

Technology transferred to Troikaa Pharma, Gujarat and sale in 5 countries apart from different parts of India; share of profit goes back to the innovators







Recognizing, respecting and rewarding



Hon'ble President of India conferred the National level awards on innovators, traditional knowledge holders, students and representatives of communities.

The innovation exhibitions were organized in March 2010, 2011, 2012, 2013 and 2014 at the Mughal Garden where grassroots innovations were displayed for the public. The events were inaugurated by Hon'ble President herself and was visited by many dignitaries



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"....implies a case where school children will ideate, college students will fabricate and the entrepreneurs and companies will commercialise or diffuse solutions socially as open source...."



120 awards have been given to 174 children.

Designers/engineers engaged for prototyping/value adding over 100 student ideas/innovations

Patents for over 100 student technologies filed in their name

2 students technologies taken up for commercialisation, many others in the pipeline

Promoting Student Innovations



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LPG based Refrigerator



Vardaan: Stair climbing



Incense Stick Maker



Ultra sensitive, low cost



Smart Grid Forecasting



Tiles Measurement and





Sales made internationally



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1. Coconut tree climber- USA (Florida, Massachussets, California, Hawaii etc.) Australia, Maldives, Sri Lanka, Brazil, Mexico, West Indies
2. Pomegranate deseeder - Turkey, USA
3. Garlic peeling machine - Pakistan
4. Arecanut husker - Singapore
5. Milking machine - Philippines, Sri Lanka, Uganda, Ethiopia
6. Raisin grading machine - Peru
7. Cassava peeling machine - Kenya
8. Herbal growth promoters – Ghana
9. Herbavate – Brazil





Creativity counts
Knowledge matters
Innovations transform
Incentives inspire

*(not just individual, but also collective, not just
material, but also non-material)*

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