# Augmenting grassroots innovations and traditional knowledge - Role of IPR policies

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National Innovation Foundation (NIF) - India

### Agenda

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### National IPR Policy: the Indian context



the premise

the corollary

Creative India
Innovative India

IPRs as marketable financial asset and economic tool

### Mahatma Gandhi's Announcement of a Design Competition, 24th July 1929

### One Lakh Rupees or 7700 Pounds Prize!



Akhila Bharatiya Charkhaa Sangh Worker's Samiti decided to organize a contest for inventors and engineers all over the world that if they could come up with a Charkha or a Samyukta Yantra?

All questions and queries may be addressed to Mantri, Akhil Bharat Charkha Sangh, Mirzapur, and Ahmedabad."

#### The Criteria

- Charkha must be light-weighted, easy to move, and it should be in such a way so as to be operated using either hand or one's leg in a natural way in the rural cottages of India.
- It must be in such a way that a lady shall be able to work with it for eight hours at a stretch without great effort put in.
- Either Charkhas must have a build to accommodate the use of a puni (used to make handspun cloth) or along with the charkha there must be a way to handspun cloth.
- On working with the charkha for eight hours at a continuous stretch it should result in 12 to 20 numbers of 16000 feet yarn.
- The machine should be so designed such that it costs no more than Rs. 150 in producing it in India only.
- The machine should be strong and well-made and with time-to-time servicing it should be capable of running for at least 20 years without any stopping. Servicing of the machine should not cost much and every year not more than 5% of the cost of the machine that year shall be needed for servicing.
- All those taking part in this contest may, with their own input costs and expenses, send their machines to Sabarmati Ashram before or not later than 30th October, 1930. In case the machines satisfy the criterion mentioned then the inventor/designer can patent it on his name to protect their rights on them. But, if they wish to become eligible to win the prize money of the contest, then the designer shall have to transfer the rights of the patent to Indian Charkha Sangh Council.
- The Judges for the Contest shall be Khadi Pratishtan's Sri Satish Chandra Das Gupta, Bardoli Swarajya Ashram's Technical Director Sri Lakshmidas Purushottam and Tiruchengonduu Gandhi Ashram's Director Sri Chakravarthy Rajagopalachari. In case there is no consensus amongst the judges on the winner Gandhiji's decision shall be the final one. In case of Gandhiji's absence Akhil Bharat Charkha Sangh Mantri Sri Shankar Laal Banker shall be the final decision-maker.

Father of the Nation Mahatama Gandhi was cognizant and attached due importance to **patent** (and its ownership rights etc.) in the pre-independent era of India ... as evident in the criteria of the Competition announced by him

# But its not just "Global Technology Innovation Visionaries" only who are making India proud ... Grassroots Innovators are making India proud too...

### India is a leader in Frugal & demand-driven innovation: Francis Gurry

By Vinay Pandey, Ruchika Chitravanshi, ET Bureau | Updated: Mar 06, 2017, 01.27 AM IST















Employment is an integral part of human dignity, he said.

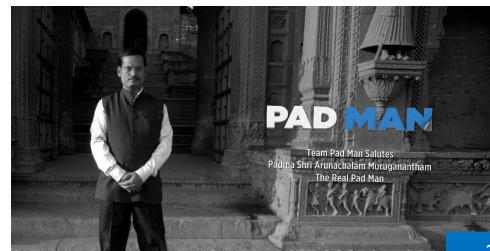
India is getting recognised as a leader in frugal innovation in a world where countries are competing on innovation plank and not labour costs, World Intellectual Property Organization (WIPO) director general Francis Gurry said in conversation with ET. He said demand driven innovation is a big opportunity for India that can address its social and environmental problems. Edited excerpts:

When we talk about intellectual property rights (IPR) there is an apprehension in the

developing countries that it is an agenda pushed by the developed world...



A Muruganantham is a grassroots innovator supported by NIF as early as 2007-08



# India's promising march year on year in the Global Innovation Index

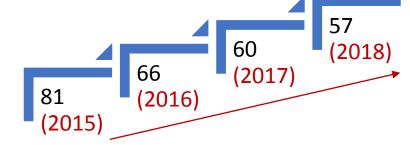


### Selected encouraging remarks from GII 2018 ...

The GII 2018 analyses the energy innovation landscape of the next decade and identifies possible breakthroughs in fields such as energy production, storage, distribution, and consumption. It also looks at how breakthrough innovation occurs at the grassroots level and describes how small-scale renewable systems are on the rise.

technologies. Energy innovation is happening at the grassroots level too. For example, small-scale systems to provide electricity for people living far from the grid are on the rise.

India ranked 57<sup>th</sup> Globally in recently released GII ranking



While replicating and improving grassroots innovations, it is important to consider their suitability with respect to the local context, including policy, needs, preferences, and potential. Incorporating specific local conditions into large-scale policy changes is always difficult, particularly when an in-depth, comparative understanding of specific conditions is constrained by a lack of adequate research. Comprehensive studies of biomass energy use in India, where far more research has been done, have yielded similar conclusions.<sup>32</sup> A

Source: WIPO

"Local (sub-national) initiatives are also important: grassroots innovations are happening in farming that can often be scaled up. In such contexts, robust links between public research institutions, firms, and the grassroots level are key."

Global Innovation Index 2017

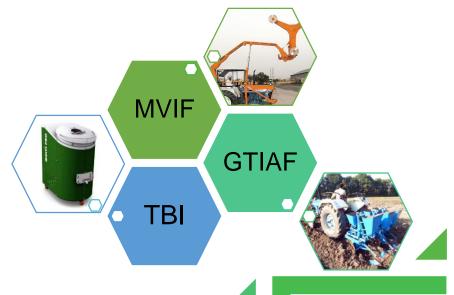
India ranked 60th in this report

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

## Making strategic breakthroughs

### **Domain characteristics**

incremental innovations, R & D with external adaptive trials, user-led experts, new actors and modifications., incubation new arrangements Product Development, Paradigmatic disruption, discontinuity and amplify the Unknown non-parameteric approaches, form, features and sanctuary model functions



Value Addition

ICMR, CSIR, ICAR, IITs, SAUs, VUs,

**IPRs Protection** 

1043 Indian patents, 8 US, 28 *PCT App.* (54 Indian Pat. granted, 5 US) 85 PPV&FR Applications (7 certificates issued)

### Diffusion

<1 %

Commercial: 230 projects -**MVIF** 109 Tech **Transfers** *NIFientreC* Social: 81 technologies acquired under GTIAF

100 %

documentation

Scouting and

NITs, NID, Design firms >3,10,000 ideas, innovations, traditional knowledge examples scouted from over 595 districts

10 %

Validation

>1500 projects

## National IPR Policy: the Indian context

### Vision

An India where **creativity** and **innovation** are stimulated by Intellectual Property for the benefit of all

An India where intellectual property promotes advancement in science and technology, arts and culture, traditional knowledge and biodiversity resources

An India where knowledge is the main driver of development, and knowledge owned is transformed into knowledge shared

## National IPR Policy: the Indian context

### Mission

Stimulate a **dynamic, vibrant and balanced** intellectual property rights system in India to:

Foster **creativity and innovation** and thereby, promote **entrepreneurship** and enhance **socio-economic and cultural development** 

Focus on enhancing access to healthcare, food security and environmental protection, among other sectors of vital social, economic and technological importance

### **Grassroots innovations**

Bottom-up social innovations: Developed by people out of their needs as a solution to their own problems

Extremely practical solutions

Involve knowledge and behaviour of a circumstance / local problem

Individuals are the main actors of innovative activities and not corporate R&D units

Mostly created by people who are uneducated without professional degrees

Developed by individual innovators having bare minimum fund and financial resources

## Grassroots Innovations and traditional knowledge: the Indian Context

Scouting Value Addition IPR Protection Business Development Diffusion Diffusion

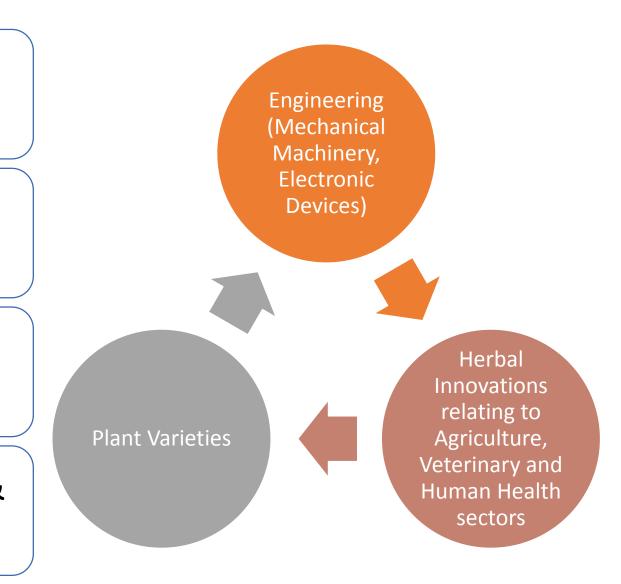
# The Experience & Learnings of National Innovation Foundation (NIF) - India in the field of IPR

Seek patent, design and plant variety protection in the name of innovators

More than 1043 patent applications have been filed

8 patent applications at United States Patent and Trademark Office (USPTO)

NIF has filed 21 Design registrations & 10 trade mark applications



# The Experience & Learnings of National Innovation Foundation (NIF) - India in the field of IPR

## In terms of IPR, the NIF is committed towards ...

Enrich the process of policy,
law, strategy development
and international
negotiations at the
government and
organizational levels

Increasing generation of IP assets in the country and their utilization for development purposes

## Festival of Innovation and Entrepreneurship (FINE)



### नवप्रवर्तन एवं उद्यमिता का उत्सव

का शंभाउभभ

### श्री राम नाथ कोविन्द

भारत के माननीय राष्ट्रपति

द्धारा

१७ मार्च २०१९ रा. न. प्र. , ग्रामभारती, अमरापुर, गांधीनगर

# FESTIVAL OF INNOVATION AND ENTREPRENEURSHIP

Inaugurated by

#### **SHRI RAM NATH KOVIND**

HON'BLE PRESIDENT OF INDIA

15<sup>th</sup> March 2019 NIF, Grambharti, Amrapur, Gandhinagar

# Festival of Innovation and Entrepreneurship (FINE)



### Innovation scholar In Residence programme



Hon'ble President of India Shri Ram Nath Kovind and Hon'ble Governorshri of Gujarat Shri O P Kohli along with the 6th batch of Innovation Scholars In - Residence programme



National Innovation Foundation – India (NIF)

respecting, rewarding & recognizing student creativity in the country

Festival of Innovation and Entrepreneurship 2019

### 10<sup>th</sup> National Grassroots Innovation awards



10<sup>th</sup> National Grassroots Innovation awards



### 10<sup>th</sup> National Grassroots Innovation awards





# Dr. APJ Abdul Kalam IGNITE Awards



Dr A P J Abdul Kalam IGNITE Awards 2018



### Dr A P J Abdul Kalam IGNITE Awards 2018













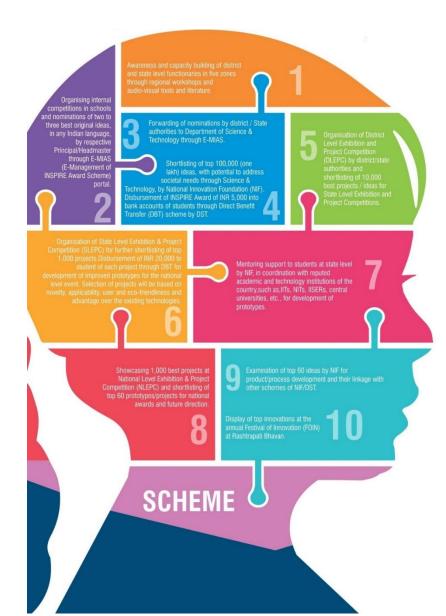




### **Innovations for Clean India 'Swachh Bharat'**









# inspire awards manak

million minds augmenting national aspiration and knowledge

## INSPIRE Awards - MANAK

Million Minds Augmenting National Aspiration and Knowledge (for students from standards 6-10, age group 10-15 years, from any school /boards)

Sowing the seeds of innovation in the mind of children

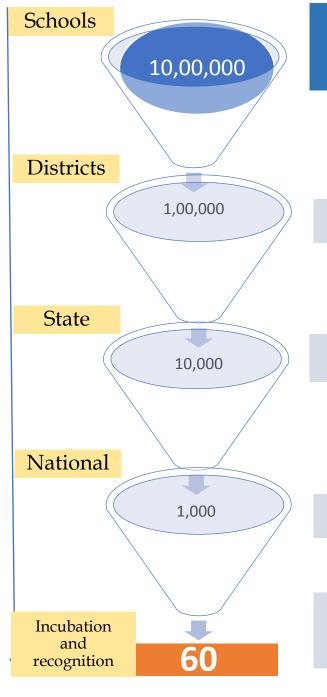
INSPIRE Awards MANAK is aligned
with Start up India,
Stand up India
program

Internal competition in schools for generation of ideas

Awareness and capacity building initiatives

Novelty, applicability, user & eco friendliness; advantage over existing technologies

Mentoring support for students and their ideas



# INSPIRE MANAK Workflow & Support Model

Invite
Nomination
from all schools
of country



District Level Exhibition and Project Competition (DLEPC)

Support of Rs 10,000 to each student

Process
Nomination &
Transfer of
Award money



State Level Exhibition & Project Competition (SLEPC)

Organization of D/S/NLEPC



Display of top 60 projects at FOIN at RB

National Level Exhibition & Project Competition (NLEPC) Mentoring and incubation Support

Product / Process development & their linkage with other schemes of <a href="NIF / DST">NIF / DST</a>









### **Start up Certificate # DIPP8315**

Dharambir food processing technologies Private Limited, Haryana

MULTI PURPOSE FOOD PROCESSING MACHINE(MPP)

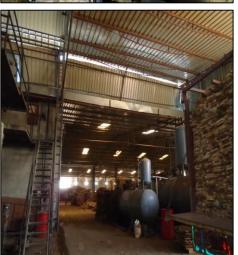
Dharambir Kamboj

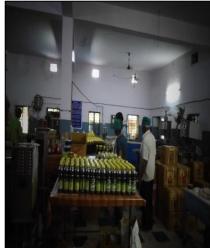
Patent Application # 367/DEL/2008

MVIF Support – Phase 1 & 2









### **Start up Certificate # DIPP7757**

Genius Energy Critical Innovation Private Limited, Rajasthan

Modified Boiler & Condensate heat recovery system

Subhash Ola



### **Start up Certificate # DIPP9215**

CK Enterprises and Agro Equipments Pvt Ltd, Maharashtra

Tractor operated blowing orchard sprayer

Rajendra Chhabulal Jadhav



### **Start up Certificate # DIPP8028**

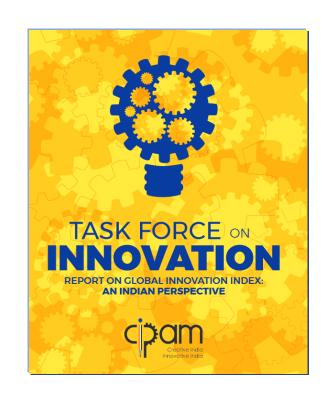
Rafiq Innovations Pvt Ltd, J&K

Walnut Cracker

Mushtaq Ahmed Dar

The role of NIF in knowledge creation is acknowledged in "Task Force on Innovation - Report on Global Innovation Index : An Indian Perspective"...

A quote from the report - "In knowledge creation, only the knowledge created by formal systems has been considered. This is simply because resource poor people are considered as sinks and not sources. As National Innovation Foundation (nif.org.in) has shown, minds on the margin are not marginal minds. They create vast amount of knowledge through grassroots innovation. There must be a way to include this valuable source of knowledge, as also building a link between the formal and informal systems, so that the socio-economic benefits ultimately reach and benefit the humanity as a whole.



### India ASEAN Innovation Platform – Social Innovations



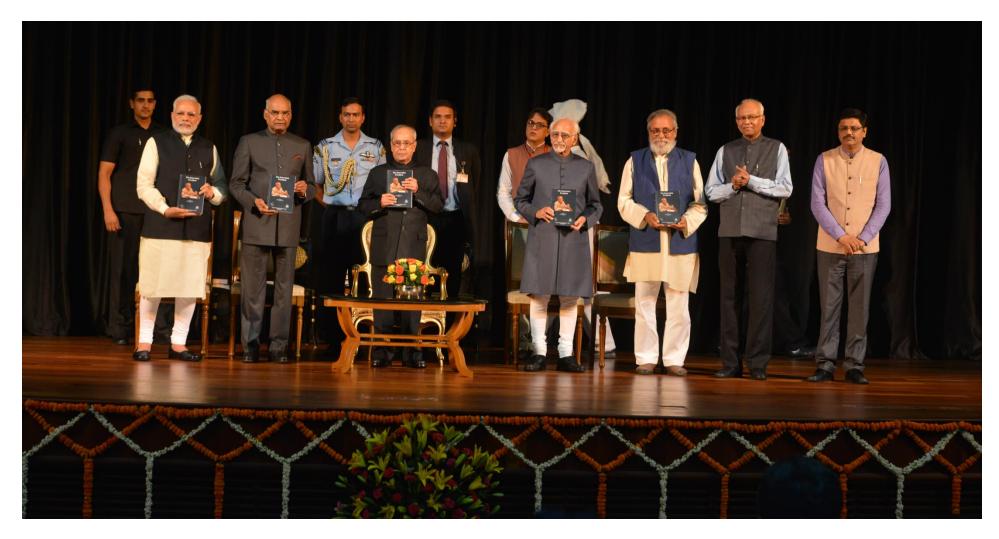




Strengthening ASEAN - India Dialogue
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Common Destiny" by way of Science,
Technology and Innovation co-operation
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Provide solutions to common problems of India and ASEAN for socio-economic development of India as well as ASEAN Region

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Thanks