



Grassroots innovations for inclusive development



Honey Bee Network, info@sristi.org

National Innovation Foundation

Ray wijewardene

A man ahead of his time, a visionary who connected the world of ideas, images, reality -that exists materially but also in mind, not just his mind, but also the mind of the masses

Otherwise empathetic innovations will not emerge

National Inventors Commission, Sri Lanka

- Corn Seed Remover
- Peanut Peeling Machine
- LP Gas Indicator
- Coin Counting Machine
- Bulb Remover/Fixer
- “ Kohila’ Cutter
- Safety Kerosene Lamp
- Rotty Making Machine
- Candle Powered Polythene Sealer

- Landmine Remover
- Fertilizing Device
- Mini Metal Crusher
- Improved Bathroom Grater
- Motorised “Kurakkan” Seed Remover
- Wall Polisher
- “Kurakkan Seed Remover
- Double Acting Water Pump
- Improved Tea Filter

Does the public policy serve

the cause of

Curiosity, compassion and collaboration

enough

Science that does not make a difference



How long? just about 200 years



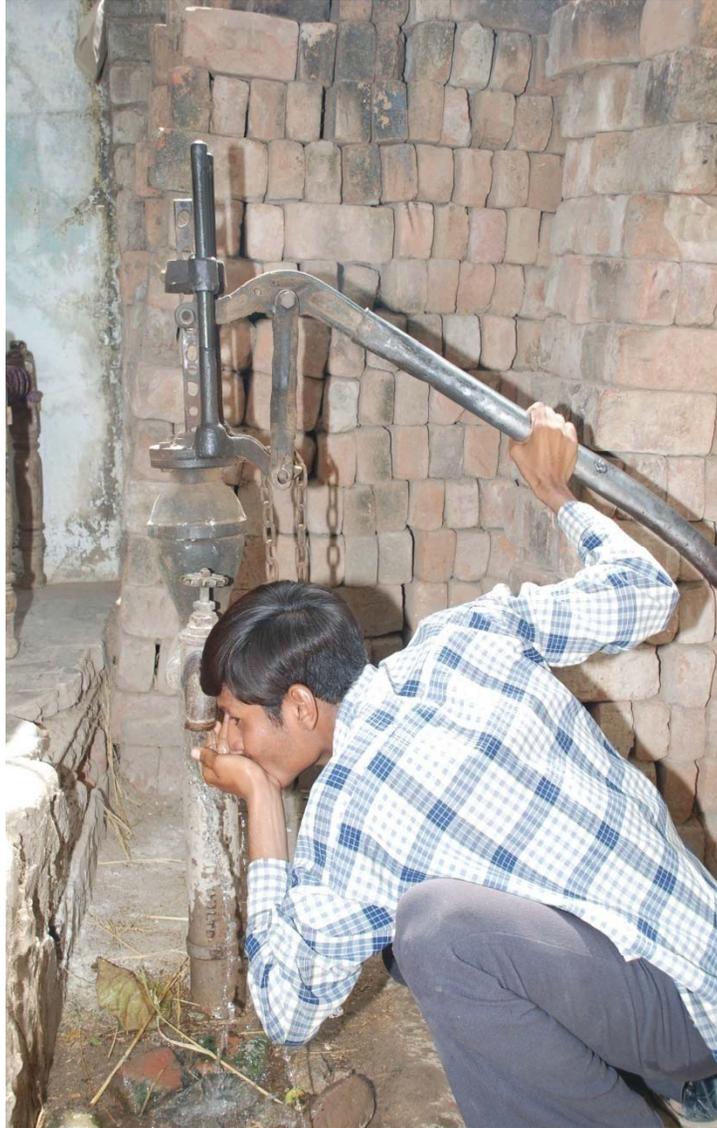
Try to forget the pain of back bending
centuries of paddy transplanting



Source:

https://picasaweb.google.com/lh/view?pq=paddy+transplanting+image&hl=fr&sugexp=gsis.i18n%3Dtrue&cp=31&gs_id=n&xhr=t&q=paddy+transplanting+image+india&nord=1&gs_sm&gs_upl&bav=on.2.or.r_gc.r_pw.&biw=1360&bih=624&ion=1&um=1&ie=UTF-8&sa=N&tab=wq#5225312498863276162

Design of a hand pump
drops of water don't matter, do they?



Inclusive solutions

for human and non human sentient beings



- **New hand pump has a provision of 25% water donation for the animal trough, which is collected from the runoff**
- **A provision of about 1 liter water storage inside the head of the pump which can be utilized through a tap for use as a drinking source just by pumping once**



Multi-functionality: Converting a motorcycle into a multipurpose farming machine : mansukhbhai jagani



**b) Poor often leverage a resource
in which they are rich:
knowledge (+ ethics, institutions,**

c)



**C: compassion
often leads to
creative,
collaborative
and
considerate
and empathetic
innovations**

A public innovation for public use: Jharkhand



Plant varieties developed by farmers



'Sushil-Laxmi' – New Gram Variety by Balasaheb Patil



An improved disease resistant variety of Pepper – *Kumpukkal* by KT Varghese



Improved Variety of Cardamom by K J Baby



Wonder cardamom- a new variety of cardamom by Sabu Varghese



'NP77' – An improved black pepper variety by RG Hegde

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D: much of the knowledge, innovation, practices are shared **as open source**, which does not mean their **knowledge rights** should be trampled with impunity,

Solutions by poor for poor and also rich

Non stick clay cooking pan: **two**

usd safer, cheaper, better. Mansukh bhai prajapati



Leadership is to see the intertwining of sacred with profane, in pursuit of sustainability: CREATING PUBLIC STANDARDS OF EXCELLENCE



E: Being **short of material resources**, it is inevitable that the Poor optimize mental resources (imagination) resulting in extremely affordable, **frugal** and accessible **innovations**



Md Rojadeen: Champaran, Bihar
cooker for coffee, **frothy espresso**
anywhere !!!!!!!

Bicycle based Innovations



Rider Induced bicycle
Mr. Kanak Das, Assam



Bicycle based sprayer
Mr. Mansukhbhai Jagani, Gujarat



Amphibious Bicycle
Mohd. Saidullah, Bihar



Bamboo bicycle
Mr. Dodhi Pathak, Assam



Bicycle with gear
Mr. Jayanti J Patel, Gujarat



Bicycle based mobile spray pump
Subhas Vasantrao Jagtap, Maharashtra



Multipurpose Bicycle
Md. Kamruddin, Rajasthan



Bicycle operated pump
Mr. Vikram Rathore, AP



Bicycle based portable Pump
Mr. Nasiruddin Gayen, WB

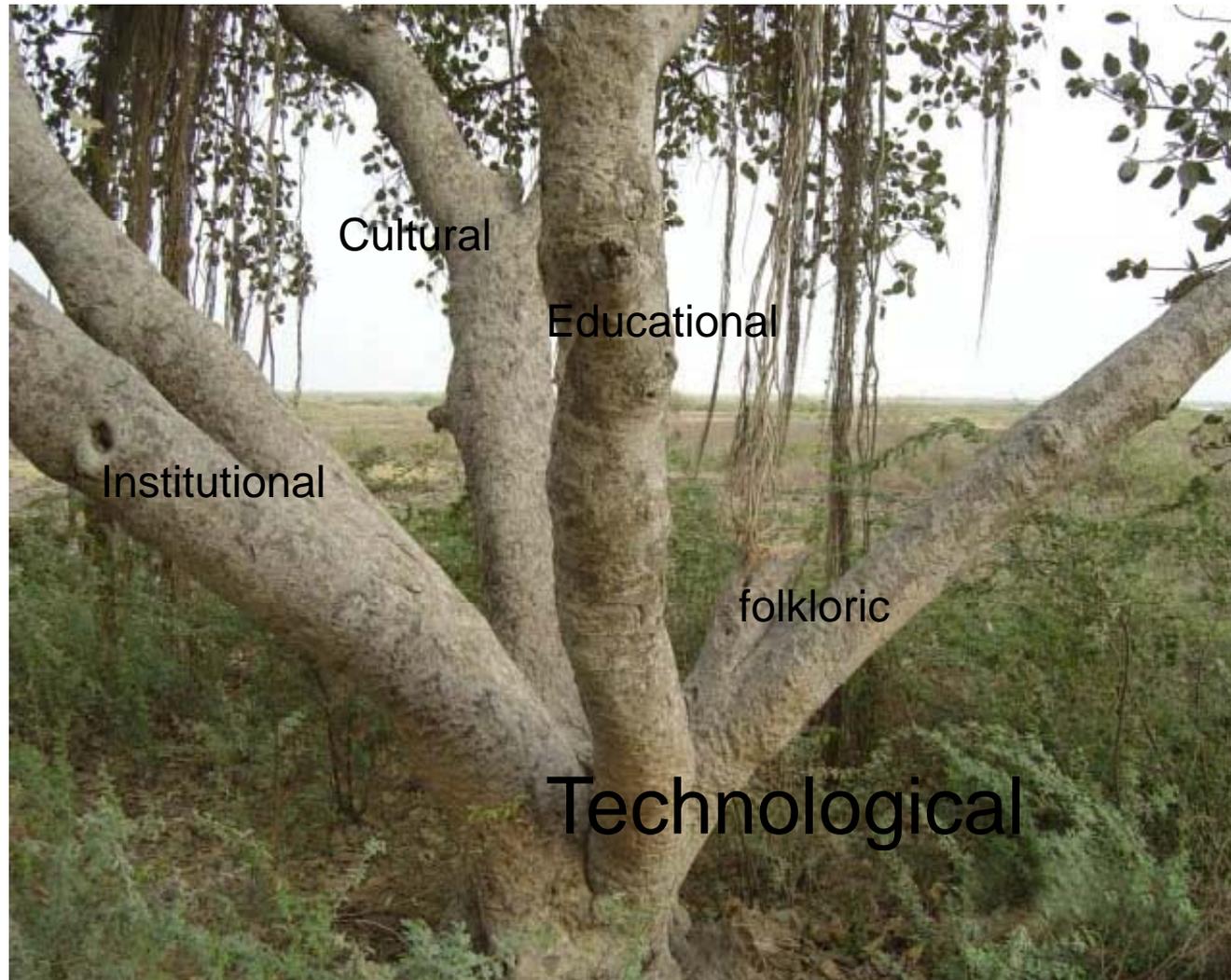
Technology is like **words**,
institutions are like **grammar**
and culture is **thesaurus**

Aesthetics of alienation:

description as a choice

(Sen, 1981)

Mapping the creative mind of India and the world at grassroots

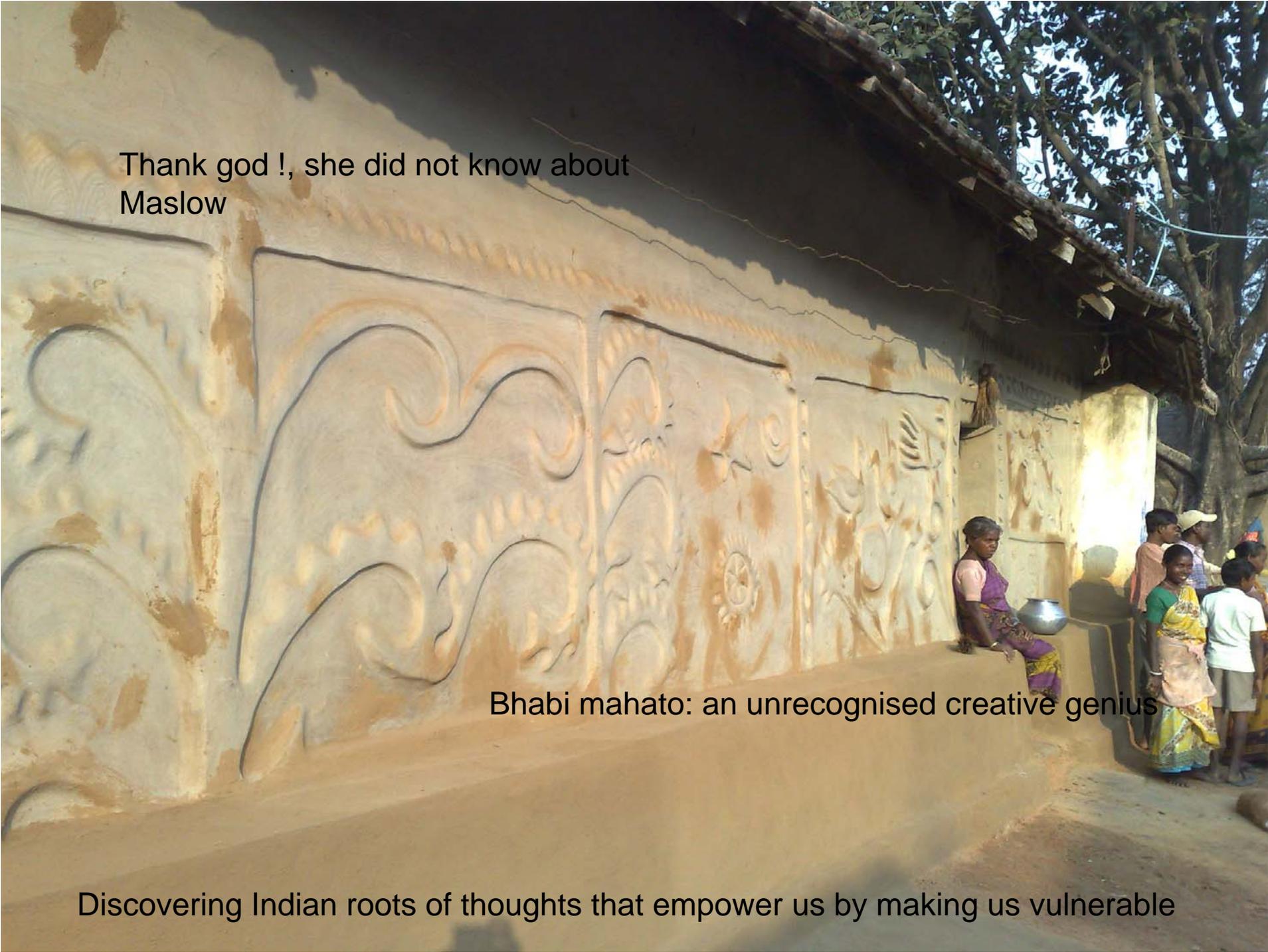




traditions of excellence
panchmahals
Gjarat

Is this a skilled job? How can then she be unskilled?





Thank god !, she did not know about
Maslow

Bhabi mahato: an unrecognised creative genius

Discovering Indian roots of thoughts that empower us by making us vulnerable

No surface is too scarce, no place more perfect for the expression of creative spirit even on dung cakes heap



Some principles of design, learned from every day creativity, in kitchen, farms or firms at grassroots



Grassroots Designs that teach
us shaping the sustainable
future: energy

**Three tier system
of harnessing
energy : Jyoti,
Arku Valley,
Andhra Pradesh,
India**

Is
Frugality
Fungible?







Will this change the way we design our kitchens worldwide?

- Are grassroots innovations just the artifacts, or can these be also heuristics?

फसल का कीड़ों से बचाव



श्रीमती जानकी देवी
पश्चिम चम्पारण, बिहार



श्रीमती जानकी देवी ने मुख्यतः धान और सब्जियों में होने वाले चूसने तथा छेद करने वाले कीड़ों की रोकथाम के लिये जड़ी-बूटियों से एक प्राकृतिक दवा बनाई है ।

इसका परिक्षण रा.न.प्र. ने क्षेत्रीय अनुसंधान केन्द्र, माधोपुर तथा सद्भाव - सृष्टि संशोधन प्रयोगशाला, अहमदाबाद में कराया जिसके नतीजे उत्साहजनक प्राप्त हुए । तत्पश्चात इस पद्धति का पेटेन्ट भी रा.न.प्र. ने श्रीमती जानकी देवी के नाम कराया ।

JANAKI Devi,
Western
Champanan,
Bihar,

innovator of a
herbal pesticide,
patent filed by
NIF on her
innovation,
testing done in
SRISTI natural
product lab

How did we learn these lessons?

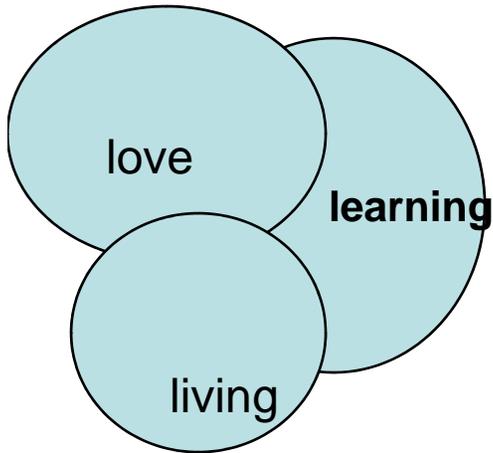
And why do development managers still refuse to learn/practice these?

learning from common people:

Saidullah, champaran, Bihar

Blending

love, learning and loving



Service at your door step: Sheikh Jahangir, Jalgaon, Maharashtra



Scooter mounted flour mill

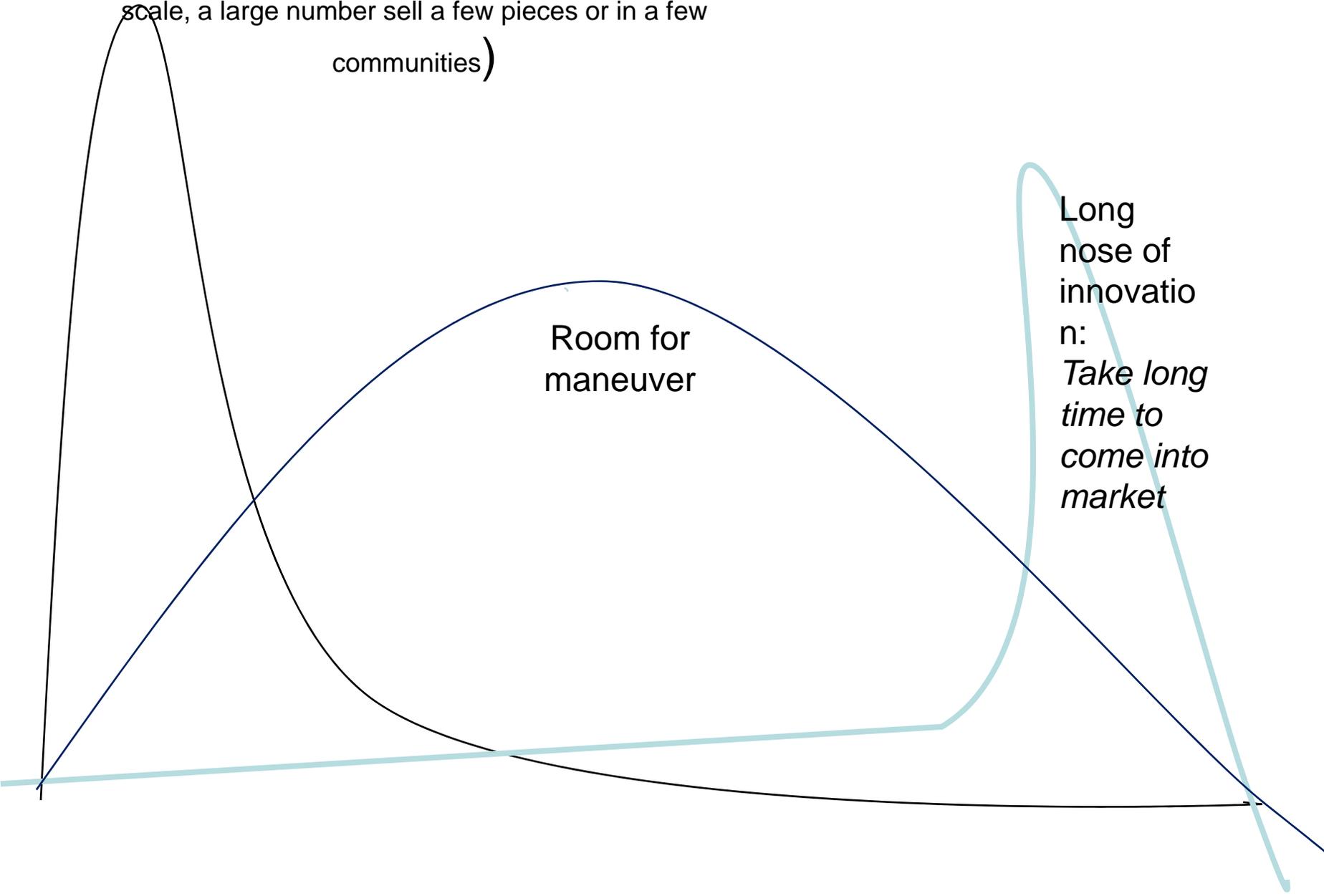


Scooterbased washing machine

Fortune at the Top of Ethical and Innovation Pyramid

Long tail of innovation

(only a few achieve scale, a large number sell a few pieces or in a few communities)



Room for maneuver

Long nose of innovation:
Take long time to come into market

Doing Right thing for wrong reason

- common people many times do the **right** things without knowing the reason and sometime they do these for **the wrong** reason.



Should *accuracy* be
traded off with
affordability

Should *design*
overtake *durability*

Should *desires* be
preferred over
deserving

Trade offs in
inclusive
development

- Randomization AND STRATEGIC FOCUS
- Scale, speed, scope
- Challenges award, Gandhi, 1929
-

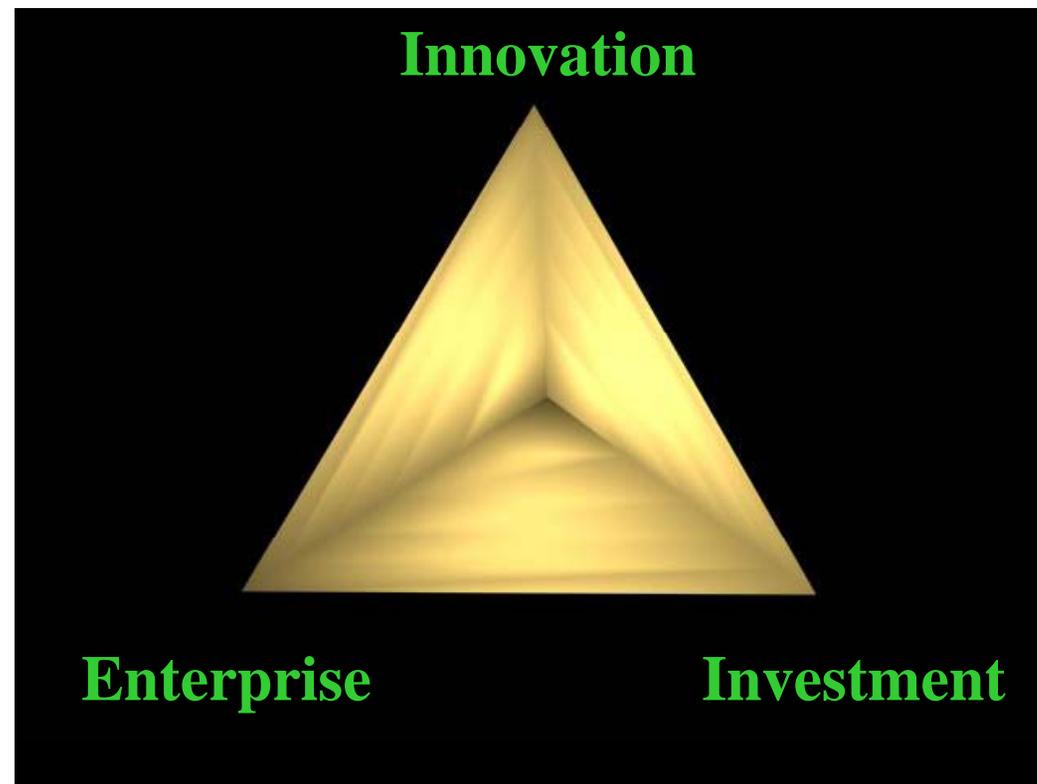
How did we do it?

**Passion,
purpose
and
performance**

GOLDEN TRIANGLE for rewarding CREATIVITY

Leadership is to take note of *ex ante* and *ex poste* transaction costs and deal with them upfront,

If not, these are transferred to the weaker partner



Building upon a resource in which poor are
rich

Using the right language:

Why I don't like bop or bap as terms talking
about only **economic** pyramids, what about
innovation, ethical, institutional, cultural
pyramids

Emerging Models of innovations

- New models of innovations:
 - **Inverted** innovations
 - Building upon what disadvantaged **people are rich** in: *inability to live with problems unsolved*
 - **Empathetic** innovations: *samvedana se srijansheelta*
 - Going beyond **long tail, long nose** of innovations to **turbulent** innovations, **Deviant Research** (1988, 1998, 2007)
 - Diffusing semi-stitched or just loose cut clothes: **user driven and based** innovations

Models of innovations:

- **Pooling of distributed** ideas for innovation and experimentation

Pooling of distributed knowledge to trigger innovative products

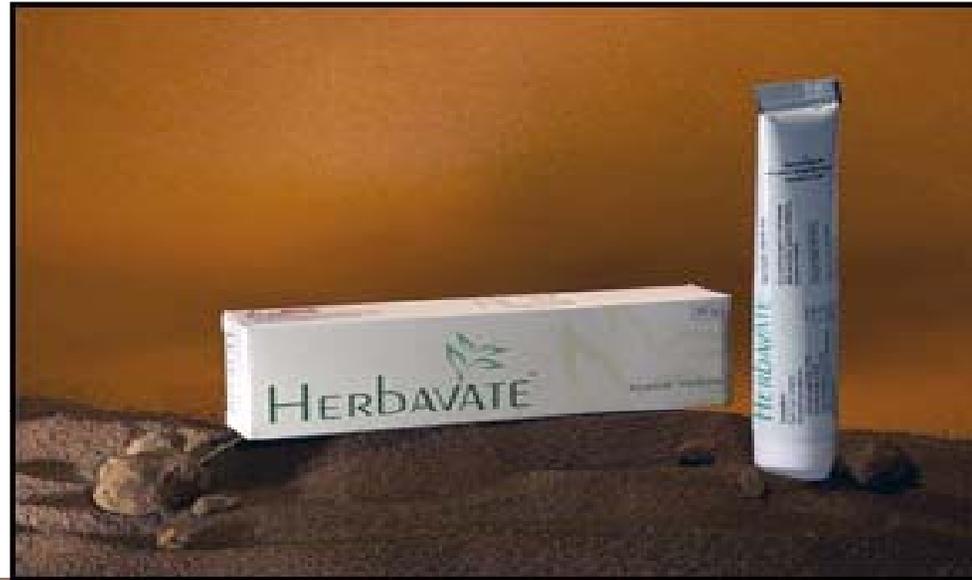


HERBAVATE

Herbal medicine for patients suffering with dermatitis and psoriasis



Recognition to Innovators





- Micro-venture innovation fund (MVIF) –micro finance to micro venture finance
- Grassroots to Global (g2G)
- Moving blackboards: learning from unexpected quarters ; shodhyatras –learning walks, 5000 km and still walking
- Innovation Insurgents: mobilising the angry or confused youth

TAF(technology Acquisition Fund)

- Technology Commons and Technology Acquisition Fund : expanding public domain and licensing tech at low or no cost to small entrepreneurs

Inclusive Indian innovation eco-system

- National Innovation Foundation (NIF, www.nifindia.org 2000), Grassroots Innovation Augmentation Network (GIAN, www.gian.org 1997), Society for Research and Initiatives for Sustainable Technologies and Institutions (SRISTI, www.sristi.org, 1993), National Innovation Council, CSIR 800,

Mining the minds of masses

- NIF has mobilized more than 160,000 ideas, innovation, and traditional knowledge practices, of course not all unique, from over 500 districts of India. Patents have been filed for more than 450 grassroots innovations and outstanding tk practices in India and USA; much more are in public domain

Honey Bee Network- an Incubator of Institutions

National level body supported by DST. Govt of India to scale up green grassroots innovations

First formal steps, an NGO to support the HBN

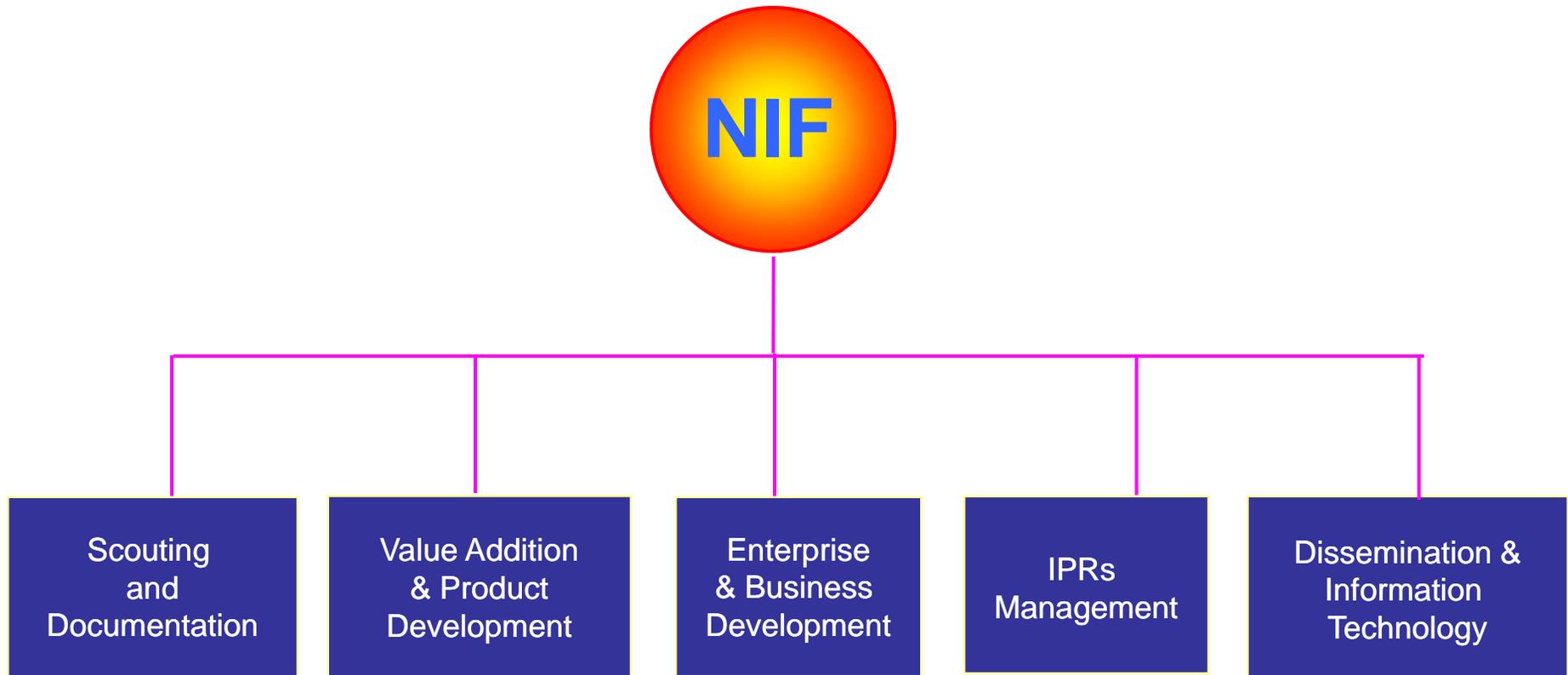


Regional Technology Business Incubators to augment grassroots innovation through value addition & business development

Informal Network of like minded people and organizations. It has no physical address



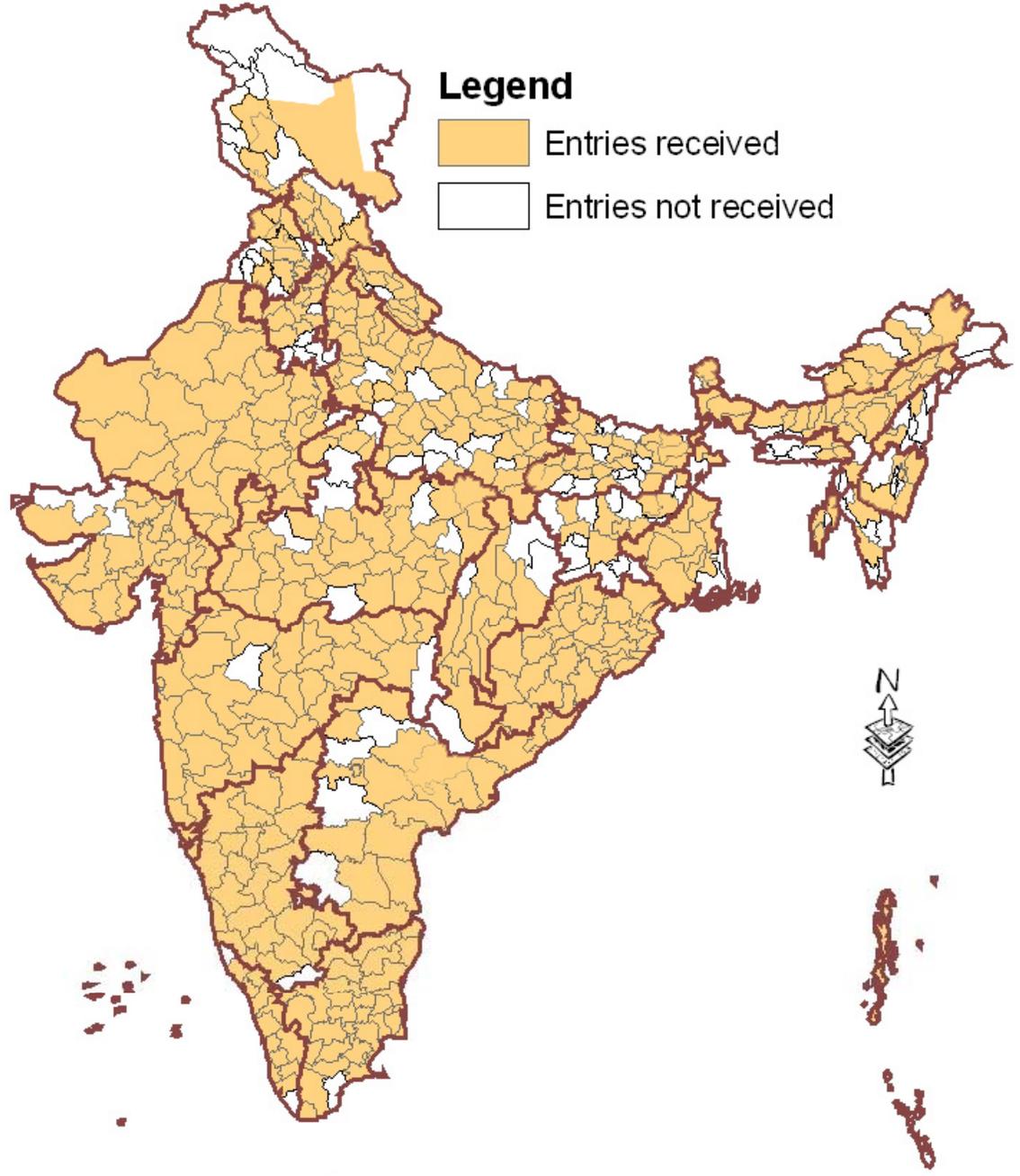
Functions



Current Status

- Scouted more than 160,000, ideas, innovations, traditional knowledge practices (Not all unique)
- 469 patents filed on behalf of innovators
- 500 projects supported for value addition
- 174 projects under Micro venture innovation fund
- Transferred 64 technologies to 78 licensees

Coverage of Districts by NIF (2000-2010) N= 545



simplicity, frugality, multi functionality and diversity evident in nature are witnessed in many of the grassroots innovations.

Are these creative people at the bottom of innovation pyramid?

Language shapes the habit of thought,

You choose your language, shape your thoughts and imagination

Inverted model of innovations

Innovation Leadership: starting early:
building consciousness among **children** so that they
internalize the logic of future societal transformation



Why pierce skin to get a blood test done?
I wish to make a blood testing system that would do the required test by scanning the skin surface or testing the skin excretions . . . rishi class iv

I want to integrate the gait of a person with a mobile. As walking style differ person to person, the software will be able to identify the signals based on the body movements while walking

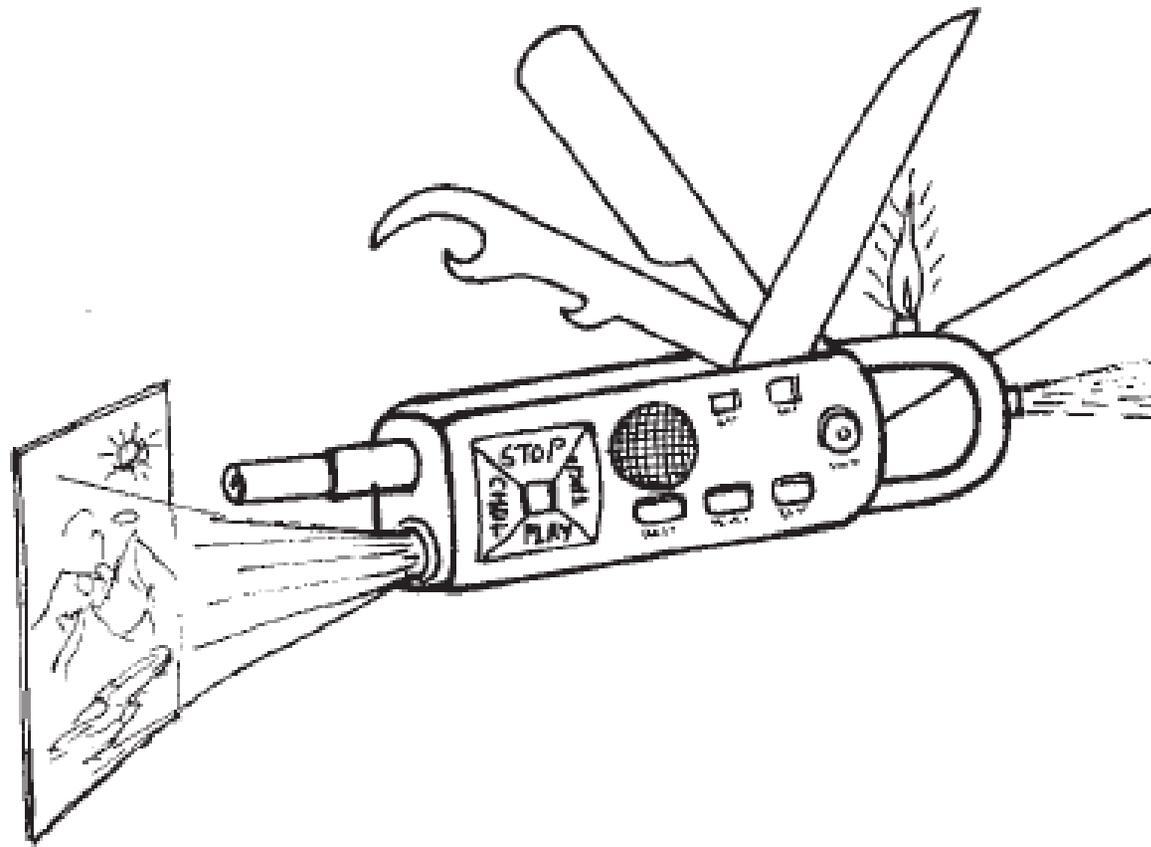
If the mobile will sense a different movement once act will lock itself and send a message about its location predefined number . : anurag rathor 9th class

I want a high tech school bus which can give alert signal as it approaches my bus stop. I would not miss my bus this way!!: pallavi, 9th class

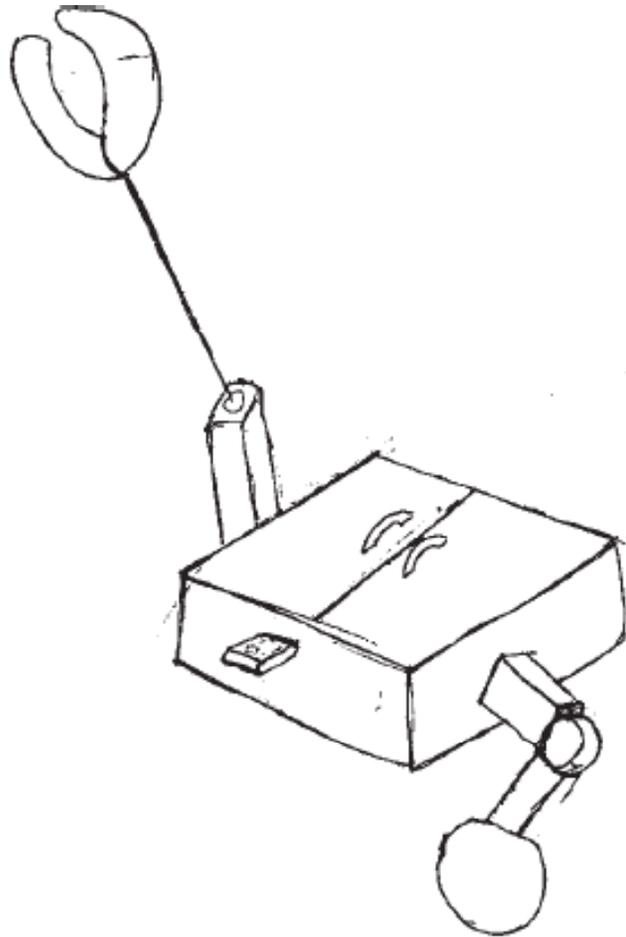


New Age Swiss Army Knife

Nuruddin Bin Abdul Aziz wants to improve Swiss army knife. His knife has a blade, a screw driver, a toothpick and many more futuristic functions



Better Beware: Food saver can punish too!!!



Students living in boarding school are aware of the games children play with each other, and take away each others' share of food or other things.

Mohammed Harz Bin Hishammudin has thought of a new kind of food saver which will not only heat or cook the food but also take care of any one who is trying to take it in an unauthorized manner. It will need a pin code and if some one enters wrong pin code to take out some one's else's food kept inside, the hand catcher of the device will catch the intruder. Another arm will give him a punch. Better beware!!!



Breathing sensor apparatus to assist physically challenged

This system consists of a circuit which uses the energy generated through breathing exercise. It may display several options such as food, It thus enables paralyzed people articulate their wish and be self-reliant in routine activities. The technology has a range of applications like operating a wheelchair, electronic appliances, prevention of accidents, detecting thefts, etc.

Susant Patnaik, Class VIII, now in 12th Bhubaneswar



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[Back](#)

Nisha Chaube
NOIDA
Bag with folding seat



I want to integrate the gait of a person with a mobile. As walking style differs from person to person, the software will be able to identify and store the signals based on the body movements while walking.

If the mobile will sense a different movement once activated, it will lock itself and send a message about its location to a predefined number. The system will also have a password option so that in cases of emergency, the original user can unlock it.



Anurag Rathore, class IX

Jalandhar





T Chris Ananth

Class 1

Bell Matric Higher Sec
School

Tirunelveli, Tamil
Nadu



Mini vacuum cleaner in shoe

Young Ananth's idea is to have a vacuum cleaner like small device in a shoe that could suck in dust when a person walks. The base of the shoe would also have a small dust bag in which this dust may be collected.



Divyam Gupta

Class 10

Delhi Public School

Bulandshahr, Uttar Pradesh



System to prevent people from using mobile phones while driving

In order to prevent people from using mobile phones while driving, Divyam suggests to place touch sensors on the gear lever and the steering. This means that both the hands need to be either on the steering or on the steering and the gear lever. If anytime, the driver's hand is not on either steering or gear lever (for more than designated seconds), the system will infer that either s/he is using a mobile phone or not carefully handling the steering. Based on this, the system may react, which can be pre programmed. This reaction, as per the programming, may be slowing down the vehicle and bringing it to a halt after some delay, moving to side by giving indicator or simply giving an alert alarm to the driver.

Reading assistant for the blind/low vision people

Mayank's idea is to develop a gadget that can be worn on a hand and which can be moved over text or braille. It uses sensors that scan text and braille and convert it into audio signals for the blind /visually challenged.



Mayank Walia

Class 12
Police DAV School
Jalandhar, Punjab



We all see our mother sorting rice grains but how many of us invent ric grain sorter? Md Sajid ansari, class 7, ranchi has done just that





Medicine box with reminder facility,
taps with different timer settings

Mohit Singh

Std 10, Delhi Public School, Sidhi,

Three innovations, three
principles that
with different

ideas! 'Waste not, want not', that is the
inspired Mohit to innovate taps
timer settings.

His second

when he

on the

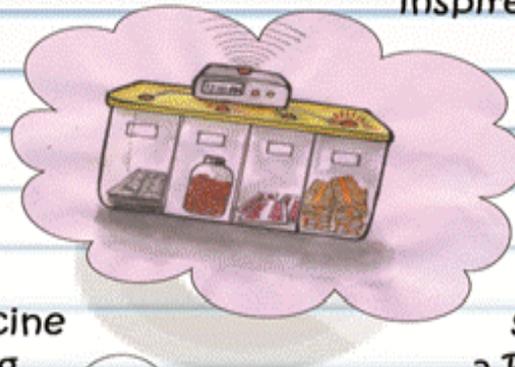
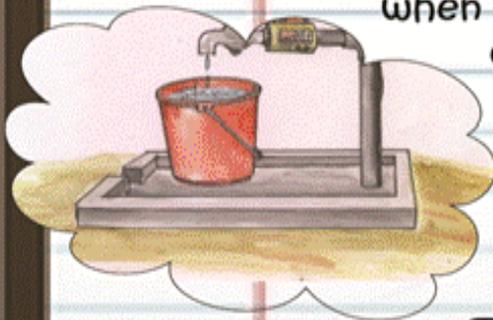
remin

medicine

having

machine

!



innovation came about
thought of putting a timer
medicine box which would
d him the time to take his
s. It also has the option of
a BP & sugar level testing

The
that the
blur their

idea for his third innovation came when he saw
windshield of their car would get frosted and

vision when his father would drive in winters. So

Mohit thought if there is be a wiper outside the car

for rain, why not inside?

Mohit is an avid reader, a good artist & dancer, plays
musical instruments & enjoys cooking !



I want to develop a hydrogen based
fuel for my country so that we won't need to beg any

Use of Helmet as an ignition to start two wheelers

11, Government Girls High school, Tiruvarur, TN
SM ARTHI , VINOETHA AND LAILA BANU

Three girls, one idea: Recently there was an accident and students of an engineering college travelling in motorbike were badly hit and died on the way to hospital. The event was discussed at home and Arthi asked her father about ways to prevent such type of accidents. It had created great impact on her and she used to think that in spite of traffic rules people did not understand the importance of wearing helmet. In her quest to find a solution, she came up with this idea. She is brilliant in academics and qualified in National Talent Search Examination conducted by NCERT during her 8th standard education.

Vinotha used to read newspaper reflecting stories of motorbike accidents and theft causing undue distress to middle class family. During her trip to a restaurant with her family, she had seen sensor based hand wash for preserving water. This instigated her to think in the and developed the idea. One banu's teacher died due to while driving his motor had prompted her to

I want to be a marine engineer



I will join IAS to rectify transportation and hygiene system in remote areas.



This direction of Laila accident bike. This think of

I wish to emulate as a role model for girls of Muslim community like Dr. A.P.J. Abdul Kalam did for the country!



East to west: lateral learning

From assam to gujarat





100 usd windmill
from Assam to Gujarat
east to west, paddy to salt
1200 USD windmill

Lateral learning
From one context to another



फसल का कीड़ों से बचाव



श्रीमती जानकी देवी
पश्चिम चम्पारण, बिहार

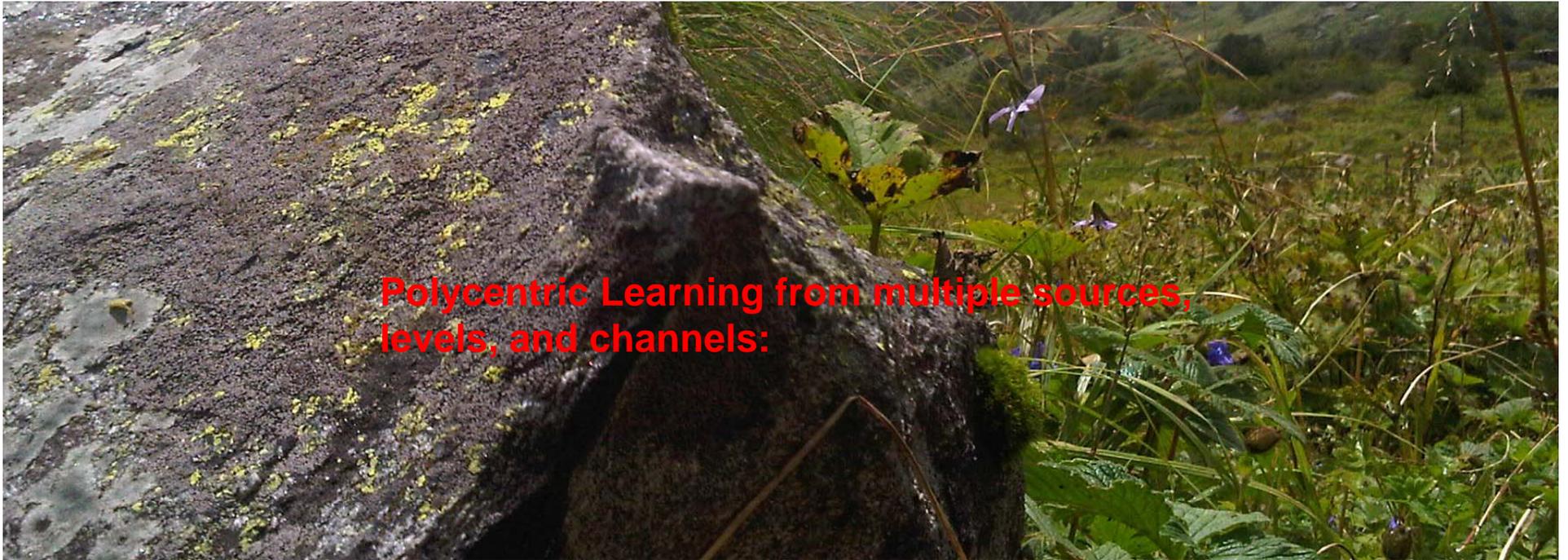


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**Polycentric Learning from multiple sources,
levels, and channels:**

Future sources of learning,
creativity and innovation would
not be restricted to formal
boundaries of organisations.

Twisting the (tiger's) tail:
Innovations through insurrection

Why is the world resorting to
learn from masses, people
outside the formal
organizations?

Forgotten youth

Engaging with future:

where are young people in our scheme???

Dynamics of small town, small institutions, sub cultures

Lessons from www.techpedia.in by sristi.org

Innovations will emerge from big minds of small places, young people

www.techpedia.in

- recently a new initiative [techpedia.in](http://www.techpedia.in), (a portal by SRISTI (sristi.org) pooling 104,000 engineering projects by 350k students from over 500 institutions) etc., engaging with youth in the one of the youngest country

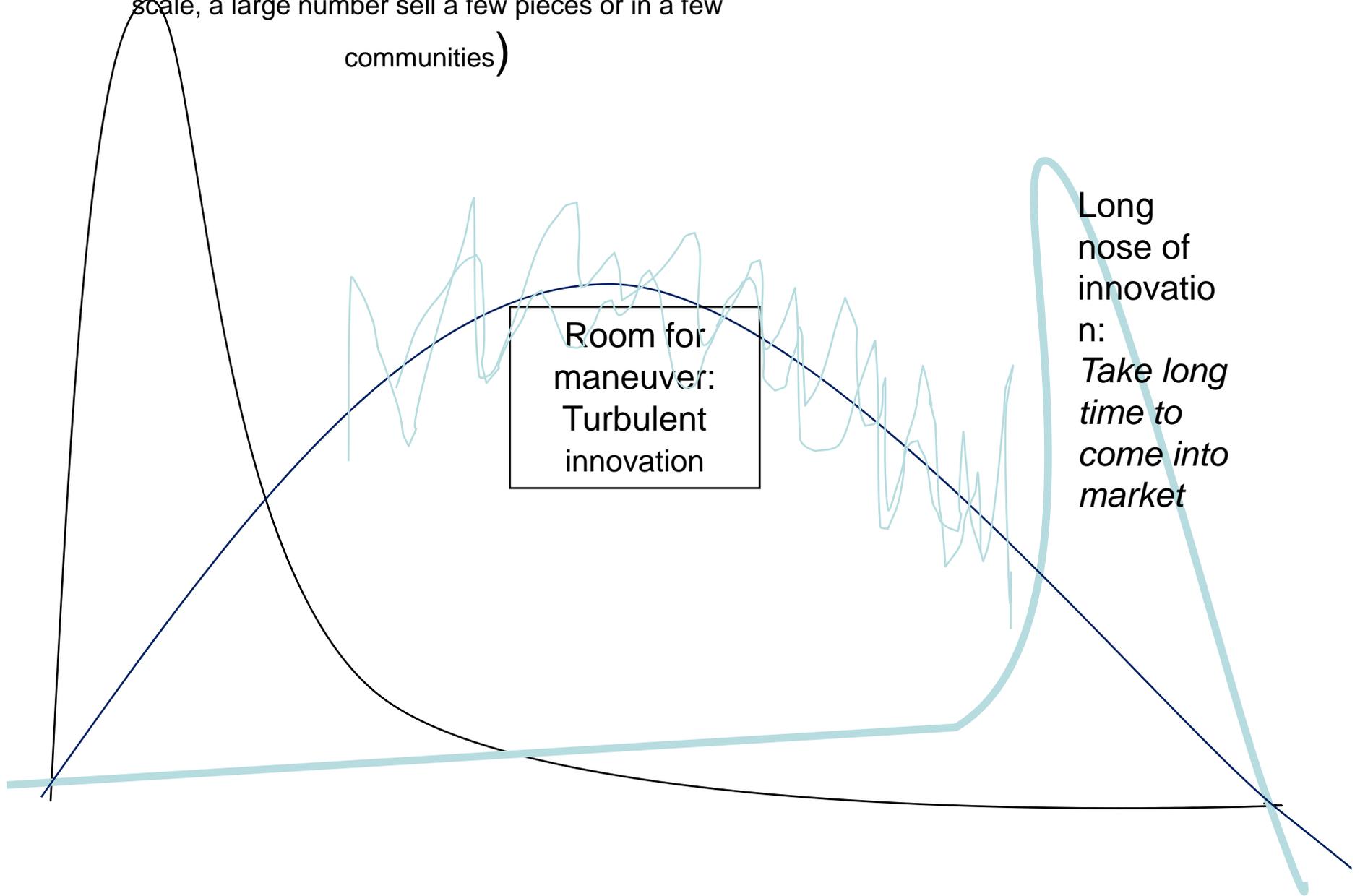
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Long tail of innovation

Long tail of innovation

(only a few achieve scale, a large number sell a few pieces or in a few communities)



Room for maneuver:
Turbulent innovation

Long nose of innovation:
Take long time to come into market

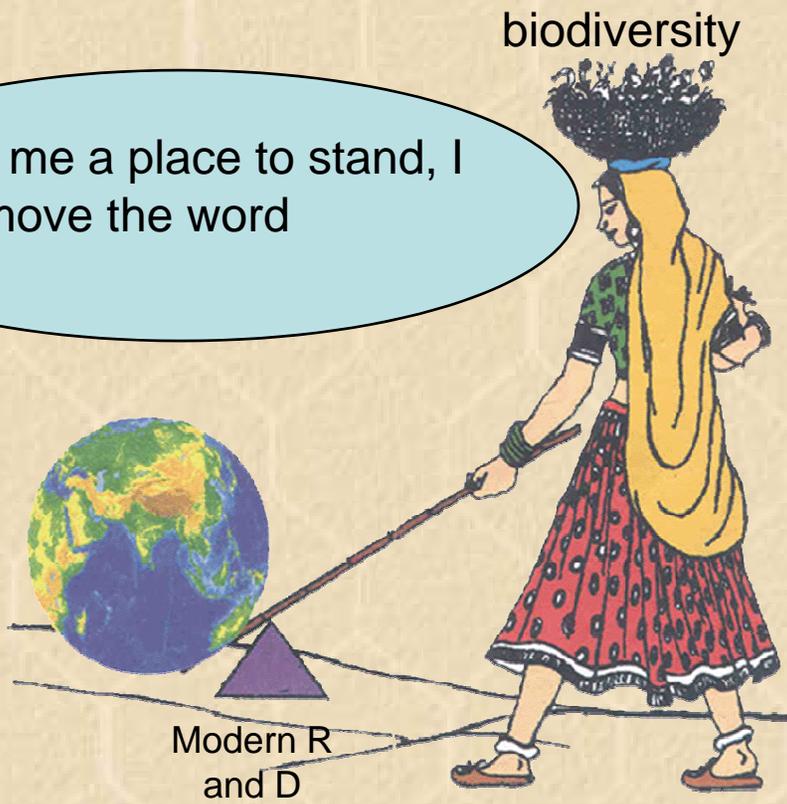


Should scale be the enemy of the sustainability :

logic of the Long Tail, investing in ideas, technologies with limited diffusion, without that sustainability is threatened

How to transfer science for development and diffusion of technologies(Gupta,1988)

Give me a place to stand, I will move the world



SRISTI (*Society for Research and Initiatives for Sustainable Technologies and Institutions, 1993*) is a developmental voluntary organization, set up to strengthen the Honey Bee Network of grassroots innovators engaged in conserving biodiversity and developing sustainable solutions to local problems.

<http://www.sristi.org>

Note on SRISTI



Is Social violence in economically depressed, forest or tribal regions is an indicator of indifference?
Shodh yatra; learning walks

- The degree to which the *in-situ* value addition takes place determines the share of benefits that accrues to the local communities. Higher the *in-situ* value addition, higher the benefit.

Shodh yatra

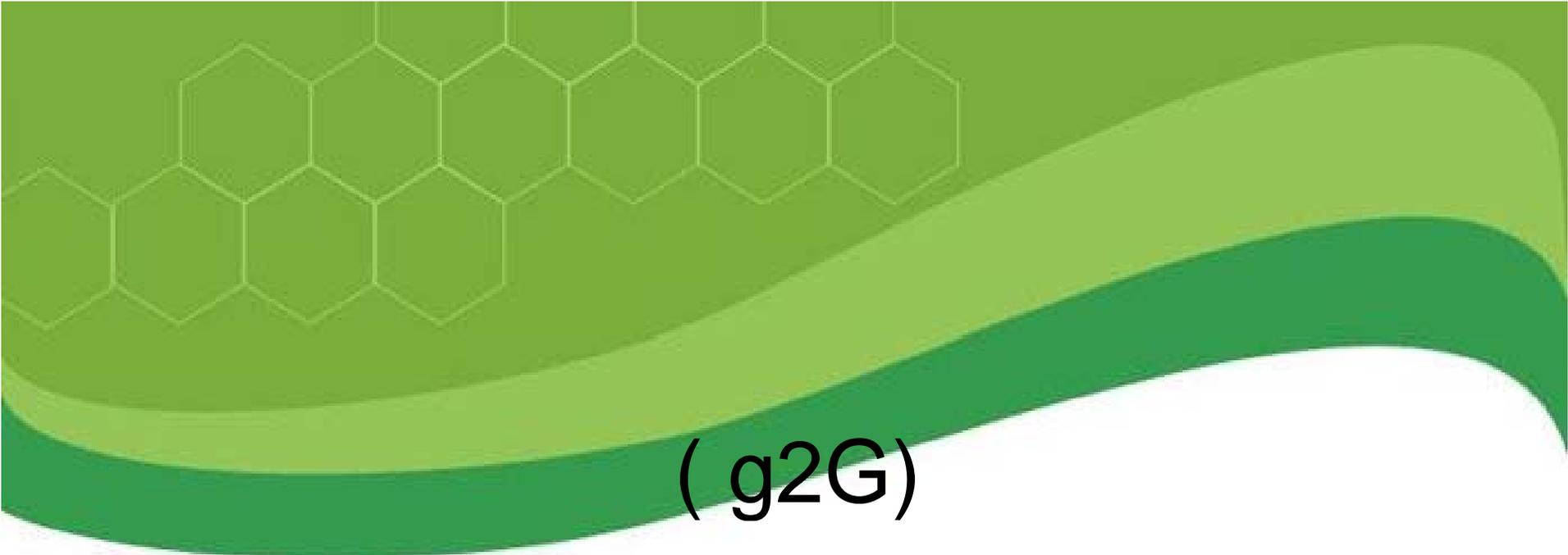
every summer, every winter



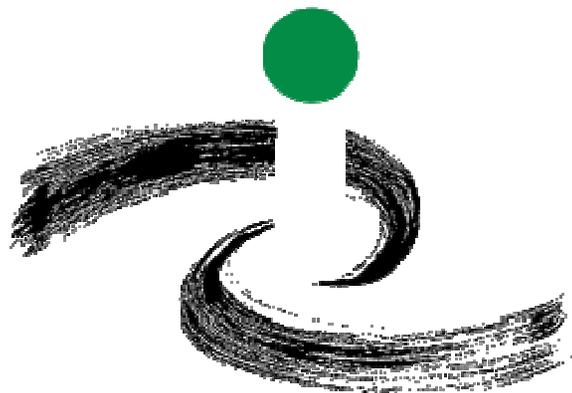
Satvik

Traditional Food Festival, iim campus





(g2G)



National Innovation Foundation

www.nifindia.org/bd

g2G

grassroots to global

**Global GIAN – Building Global Value
Chain for augmentation of Green
Grassroots Innovations**



Sales made

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-Phillipines, Uganda, Ethiopia
6. Resin grading machine-Peru
7. Cassava peeling machine-kenya
8. Herbal growth promoters-Ghana

Product enquiries:		
Sl no.	Innovation/product	Countires
1	Coconut/palm tree climbing device	USA, United Kingdom, Vietnam, Australia, Sri Lanka, Mexico, Iran, West Indies
2	Entech oil expeller	USA, United Kingdom, Australia, Phillipines, Canada, Kenya, Colombia, S. Africa, Switzerland, Poland, Indonesia, Belgium
3	Garlic peeling machine	Slovenia, USA, Turkey, Peru, Singapore, Iran , Venezuela, Pakistan
4	Pomegranate deseeding machine	USA, Australia, Turkey, Venezuela, Hongkong, Israel, Netherlands, Thailand, UAE, Iran, United Kingdom
5	Cassava peeling machine	Congo, USA, Benin, Nigeria, Kenya, UAE, Uganda
6	Aaruni tilting cart	Uganda
7	Coconut defibring machine	China
8	Coconut dehusker	Mexico, New Zealand, USA, Philippines, Bangladesh
9	Lemon cutting machine	S. Africa
10	Milking machine	Bangladesh, Uganda, Ecuador
11	Palm leaf mat weaving machine	Fiji
12	Rain Gun (Chandraprabha)	Sudan
13	Tea making machine	Bangladesh,
14	Tile making machine	Bangladesh, Kenya, Rwanda, Ghana, Zambia
15	Trench digging machine	Pakistan
16	Zero head water turbine	Egypt
17	Arecanut dehusking machine	Chile

What can India and China learn from Brazilian slums



Mr Ubirajara, 47, in slums around Rio de Janeiro, Brazil, inventor of stand on front wheel of cycle

More stable, easier to vend things, portable bench

Honey Bee network in Limpopo, South africa

What it became



Modified donkey cart
(One among many designs)

What it was????



Differential-40 kg, what is it
doing here, amrutbhai



CHIN: Shanzhai Breathing Apparatus

Honey Bee Network in china TUFU



The crude breathing machine assembled by Ji jun hai, Meng wen hai and Ma bao shun pumping life into Xiaoyan's lungs!



Amphibious Car

The Chinese innovation by Hu Ze En



The Indian Innovation by P.S.Vinod, Kerala



Bicycle Hoe

Lao Yang, Shan dong province



Zhang Xingming, Shaanxi Province

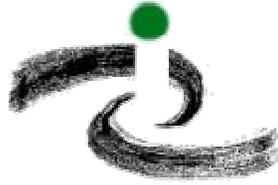


**Wang Fuhe
Miyun County, Beijing**



Gopal Malhari Bhise, Ahmednagar, Maharashtra





**Children's Creativity and Innovation Day
October 15**



National Innovation Foundation
पाँचवाँ राष्ट्रीय तृणमूल नवप्रवर्तन
एवं विशिष्ट पारंपरिक ज्ञान पुरस्कार समारोह
5th National Grassroots Innovation and
Outstanding Traditional Knowledge Award Function



Honey Bee Network

नवंबर १८-१९, २००९

November 18-19, 2009







Markets seldom monitor the misery

And the state often tries to mask it.

It is the civil society and social movements which articulate it. Every protest, whether creative or destructive is a signal of a need not met. We have to make our antenna more *samvedansheel*.

In-situ value addition

- **BIODIVERSITY BASED KNOWLEDGE SYSTEMS AND GRASSROOTS INNOVATIONS:**
 - *In-situ* value addition: One of the major reasons for persistent poverty, social strife and despondency among local tribal and other communities living in and around forest regions is almost lack of *in-situ* value addition in various biodiversity based materials. Some people suggest that the relationship of the state with these regions is almost like internal colonialism. Several steps have been taken in the past by DST to develop technologies for vegetative dyes, oil of non-edible and edible tree based oil seeds, etc. However, complete value chain remains to be established.
- In 12th Five Year Plan, one should aim at 50 per cent reduction in the tradeoff raw material unless valorized locally.

Rebuilding horizontal supply chains: poor as providers

Not even one per cent of the savings of the micro finance groups is spent on purchase of the product made by them. While we have done lot of research on verticals, isn't that it time that we start doing research on horizontal markets.

The food that rich people take is often poor and some of the food poor people consume is actually rich. Can we create demand for such foods and give impetus for creativity, conservation and healthy consumption.

Minds on move

- **Mining the minds of masses: Massive engagement with masses for sourcing and sinking ideas**
 - About 15 to 20 million people travel by train every day and yet we have not harnessed their imagination for generating ideas to solve problems of every day life. Nor have we shared with them the ideas that they can use without much transaction costs and expert knowledge. It is proposed that a partnership is forged with Indian Railways to *source and spread ideas for larger social good.*

post offices as listening posts

- There are 1.44 lac post offices and about 6.5 lac inhabited villages. There is no better way of mapping the creativity of the masses than engaging with the postmaster and postman, the most credible grassroots functionary. All the open source technologies can be shared through wall newspaper, Bluetooth, broadcasting stations using mobile networks, door-to-door survey by the postmen and women with incentives for every accepted innovation and /or traditional knowledge practice. Never before a civilisational society has attempted a bigger engagement with grassroots. Since this is aimed at triggering experimental ethic and entrepreneurial culture, the role of government is to enrich the choices of local communities to try things out at their level with very low cost of failure.

CHUNAUTI: *Challenges for unfolding and augmenting technological innovation for society*

- The Decade of Innovation will not meet its full objectives unless India decides not to live with problems, which have remained unsolved for centuries/decades. Unless we decide to address S&T problems of working class, farmers, artisans, etc., we cannot improve productivity and thus the wages or unfold entrepreneurial energy. Mahatma Gandhi had offered an award of 7000 pounds in 1929 to improve the design of spinning wheel within the output and performance parameters broadly defined. The present value of this award of Rs.1 lac, then would be about Rs.10 crores. It is time that we give *Chunauti*/challenges with attractive awards and try to get certain basic problems of our society solved once for all.
- Isn't it a pity that despite all the research on improved chulha [cooking oven] millions of women continue to use a simple three bricks or three stones resting oven for cooking food. In a country where fuel is so scarce having less than 25 per cent combustion efficiency is a social crime.

Mental, not just menial

- **Mobilizing NREGA for documenting traditional knowledge about climate change, eco-system properties, health, culture, etc.**
 - If only five days of every worker out of 250 million people provided employment for 100 days, could be used for mapping their knowledge about technology, institutions and culture of survival, an extraordinary mapping of mind may take place. The S&T messages for improving productivity and quality of life can also be disseminated in the process. Mobile based system of dissemination and scouting can be identified for large scale, user driven content creation.

Techpedia.in

- **Engagement with youth:**
- **Unfolding Dynamism of Youth for Innovation Based Enterprise Management (UDYIEM):** This initiative will tap the potential of youth through techpedia.in, a SRISTI initiative for engaging youth with solving technological problems and starting social or economic enterprises where possible. This will become a highly responsive, fast track, non-beaucratished, trust based platform for giving wings to the purpose with passion among the young S&T community members.

Frugality is thus imperative, it is not a choice



- How do we share the benefits?

How to reward: Portfolio of Incentives for farmers' innovations

Forms of incentives

		Material	non material
Target Of individual	Incentives collective	material-individual Ipr or non ipr based awards Awards R and d grants Endowments	non-material-individual Recognition Honour Memorial
		material-collective Trust funds Venture and incubation funds Collective awards Supp for Institution building endowments	non-material-collective Policy changes Pedagogic changes



What are stairs used for: climbing up?

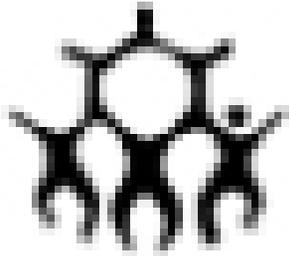
Please think for a moment deeply



What are stairs used for: climbing around, into each other's heart: horizontal bonding between formal and informal sector, science and spaces

How did it happen:

The journey.....



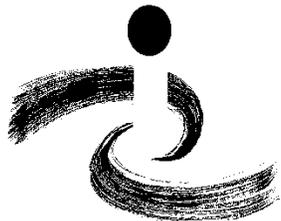
Honey bee network , informal global social movement, started in 1987-88,



SOCIETY FOR RESEARCH AND INITIATIVES FOR SUSTAINABLE TECHNOLOGIES AND INSTITUTIONS (www.SRISTI.org) info@sristi.org



GRASSROOTS INNOVATION AUGMENTATION NETWORK (wwwGIAN.org)



NATIONAL INNOVATION FOUNDATION (www.NIFindia.org) info@nifindia.org

Anilg@sristi.org

- Creativity counts
 - Knowledge matters

**Innovations transform
Incentives inspire**

- » **Join the honey bee network**
- » For rewarding indigenous creativity and innovation
- » www.Techpedia.in
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- » **09825014437**