Who play the catalytic role in commercializing the rural innovations and developing rural entrepreneurship?

Srinivas Subba Rao Pasumarti

Professor & Dean

Faculty of Commerce & Management Studies, Sri Sri University

ABSTRACT

Rapid population growth, changing consumer patterns, climate change, a shrinking natural resource base and continued extreme poverty and vulnerability in rural societies, especially in the developing world, require a major shift in the approach to development. There is a need for increased investment in agriculture in the developing world, focusing on promoting and supporting smallholder farmers, pastoralists and artisanal fishers. Right from the community development days, many experiments were done, some localized successes were achieved, but by and large many of these worthy rural innovations lie cocooned in their respective villages and others could not take advantage of it. There have been several major transitions in our thinking about the way Indian villages have become vibrant laboratories for rural innovations and entrepreneurship. With a scientific planning and adopting appropriate strategy, the sources of non-conventional energy can be exploited to substitute the energy needs of the poor. The direct and disguised forms of solar energy like wind, forestry biomass and biogas offer innumerable benefits like low-cost, reduction of waste, environmental stability, high employment potential and fulfillment of the vital component of development process, namely self-reliance and energy self-sufficiency.

Keywords: *Rural India, Entrepreneurship, Rural innovations, Self reliance.*

1. INRODUCTION

"The rural opportunity is 70 per cent of the country's population, 815 million people or 151 million house-holds. The future with those companies who see the poor as their consumers", **Late Dr. C. K. Prahalad.**

India is a country with 1.12 billion people of which 70% live in rural areas which means more than 700 million people spread around 6,27,000 villages. India's rural population comprises of 12% of the world's population presenting a huge, untapped market. Go rural is the slogan of marketing gurus after analyzing the socio-economic changes in rural world. Over the past few years rural India has witnessed an increase in the buying power of consumers, accompanied by their desire to upgrade their standard of living. From being aspirants of *roti, kapda and makaan,* to becoming brand and value conscious buyers, the rural consumer market is seeing sea-change. The buying power of the rural market in India is a whopping $25billion.

The importance of the rural market for some FMCG and durable marketers is underlined by the fact that the rural market accounts for 55 per cent of LIC policies, 70 per cent of toilet soaps, 50 per cent of TV, Fans, Bicycles, Tea , Wrist Watches, Washing soap, Blades, Salt, Tooth Powder and 38 per cent of all Two-Wheelers purchased. The figures tell us that the rural market is growing much faster than the urban counterpart. A recent forecast revealed that the Indian Cellular Services revenue will grow at a rate of 18.4 per cent with most of the growth coming from rural markets.

2. OBJECTIVES OF THE STUDY

- To explain the need of the rural innovations in India
- How the innovations facilitate life style improvements of rural India.
- The need of financial empowerment among the rural villagers
- How to mobilizing the rural innovations to fast economic changes
- How to convert rural innovative products of India to global entrepreneurial products

3. METHODOLOGY

The researchers depend on the Secondary data. They Studied:

- The State and Central governments role to encourage the rural innovations and help to convert it into entrepreneurial products

- The patent right policies of state and central governments
- The loan policies of the Public and Private banks.
- The policies of MNCs to identify the rural innovation and help to commercialize the products

4. REVIEW OF LITERTURE

"Only when we join hands, we can build a better future for poor rural women and men and end poverty and hunger", President Nwanze,[1] concluded his brief statement at the plenary session of the 35th Annual Meeting of the Governors of the Islamic Development Bank with the above quote. To do so we need to create vibrant rural economies and build the right business environment based on partnership between the public and private sector, while keeping people at the centre. IFAD's goal is to transform subsistence smallholder farmers into small entrepreneurs.

"India is a land of opportunity that places premium on enterprise and creativity .... I invite you, the Overseas Indians, to make use of the investment and business opportunities that India now offers. This is the time for all of us to become stategic partners in India's progress." - Dr. Manmohan Singh, Hon'ble Prime Minister of India.[2]

In the speech titled 'Rural India – An Emerging Powerhouse,' Mr. Harish Manwani, Chairman, Hindustan Unilever Limited [3] said, *"It is often said that there are two Indias – Bharat which exists in the villages and India which thrives in the urban areas. If our country has to have real progress and make its mark on the global stage, then these two Indias must converge. Prosperity will have to come to our villages, towns and cities."*

Speech of Smt. Suuryakanta J. Patil[4], *"India lives in its villages"* - Gandhiji's saying is true today as it was over fifty years ago. The majority of our population still lives in the rural areas. The all round socio-economic transformation of Rural India is a must for the nation to realize its potential and secure the position it deserves among the committee of nations. Government of India therefore, accords a high priority to Rural development and is accordingly implementing a number of Programs aimed at sustainable holistic development of the rural areas.

[1] http://ifad-un.blogspot.in/2010_06_01_archive.html

[2] http://www.oifc.in/investing-in-india/investment-info/in-focus/innovation-in-rural-india-treasures-from-india-bottom-of-pyramid

[3] http://www.hul.co.in/mediacentre/pressreleases/2012/rural-India-an-emerging-powerhouse.aspx

[4] Minister of State for Rural Development, Government of India, at the 16th General Session of Afro-Asian Rural Development Organization Conference on 6.1.2009, NewDelhi - MOSRD(P)_speech6JAN[1].pdf

Late Dr. C. K. Prahalad[5], a renowned management thinker and a distinguished professor, Ross School of Business, University of Michigan, said that *"India has made a mark on the global map with the concept and has been successful in changing its image-perception from a manufacturing and back-end processing hub into a research and innovation hub. It's worth noting that rural India contributes to more than 54 per cent of India's GDP, has 64 per cent of its consumption expenditure and accounts for 33 per cent of the national savings. It's interesting to note that lower income class has reduced by almost 67 per cent in the last 15 years, according to the National Council of Applied Economic Research (NCAER) estimates."*

5. PRESENT SCENARIO OF RURAL INDIA

In rural India, there now exists a growing middle class having a monthly income independent of monsoons, cropping season etc; thus ensuring a definite growth in the prosperity levels, and a sustainable periodic expenditure. Changes in occupation pattern (reduced dependence on farming), is ensuring steady and regular income. Better infrastructure, increased investment, a good monsoon, farm-loan waivers and improved income levels are stimulating activity in rural India. Consumerism is on the rise and the propensity to spend is quite visible.

It is implementing initiatives like Financial Inclusion. Encouraging the uptake of internet and mobile connectivity. NGOs are working on income generating activities in rural India through various initiatives including the establishment of Self Help Groups. Enhanced connectivity by road is improving the employability quotient of rural population. This is allowing them to earn more and therefore have a slightly higher disposable income, especially in non-harvest seasons.

The growth of the consumer durables market is much larger in rural areas as compared to the semi-urban or urban markets. According to a study "Rise of Consumer Durables in Rural India" by an industry body, India's rural consumer durable market is tipped to attain an annual growth of 40 per cent in the next fiscal 2011-12, as against the current pace of 30 per cent owing to the changes in lifestyle and higher disposable income in the hands of the rural consumer.

[5] http://www.oifc.in/investing-in-india/investment-info/in-focus/innovation-in-rural-india-treasures-from-india-bottom-of-pyramid

Owing to India's growing population and disposable income, the rural markets are expected to be the propellers of the Indian telecom sector as well. Rural users account for at least 50 per cent of new subscribers for some of India's leading telecom providers.

Though penetration is low, due to a wider base, the number of rural bank account holders is higher than urban bank account holders. Banks have come up with specific programs to cater to rural banking requirements. Kisan credit cards, launched jointly by RBI, NABARD and nationalized banks, for the farmer community, aim to address short-term credit needs of farmers for cultivation of crops. In 2009, more than 31 million Kisan Credit Cards were issued – much more than the 18+ million credit and debit cards issued in India. It is estimated that rural healthcare in 2015 would be Rs 240 billion (US$ 5.29 billion), which is 24 per cent of the total market size.

6. NEED OF THE RURAL INNOVATIONS

India made good progress in the last two decades. There is new hope and a new sense of energy that is driving rural India. As aspirations grow and consumption rises, rural hinterland is becoming the epicentre of our growth story. But we must do more. Millions of people in rural India still live below the poverty line. There are a number of issues related to health, education and sanitation which need urgent attention. Agricultural growth is critical and needs to pick up. India's agricultural productivity is among the lowest in the world and even slight improvements in yields will have a significant impact on overall growth. And yet we must go beyond agriculture if we have to make a real impact on the millions who live in rural India. As rural India rises, growth will bring its own challenges. It will put further pressure on our scarce resources. The explosion in rural consumption and growing competition for scarce resources demands that India embrace a new collaborative model of development.

Electricity problems are many in rural villages. Apart from power cut, low voltages, dropping of voltage, fluctuation in lights, etc., farmers have to remain awake in night to accomplish their works as power is not provided during day time. So there is a need to solve these problems by developing an alternative source of energy and making that easily available to the villagers. Works on non-conventional source of energy can be an apt reply to many energy related problems emerging both urban and rural places.

A small investment of a few thousand rupees can be used for making a community bio-gas plant that can directly more than its investment along with indirect benefits like no fly-breeding, no mosquito-breeding, production of odourless gas and thus environmental

protection. The species produced through Energy Plantation have high calorific value, high adaptability to poor and laterite soil, drought resistance, fast growth, high photosynthetic potential and coppicing ability, low cost establishment, and multiple usages. High-density plantation proved economically viable. Information exchange for the mutual benefits of farmers and innovators.

7. CHALLENGES OF RURAL INNOVATIONS TO GLOBE

In this era of *intellectual entrepreneurship*, where Indian patent regime has reached new heights, new reforms were made and new decisions were given by Patent Office. The road to obtain a patent is full of challenges and issues, be it complex or simpler in nature. In addition to the costly patent filing procedure, the patent application process is also a very lengthy process and complicated in nature. Another drawback for an independent rural inventor is the lack of funds and technology incubators from where inventor can get some financial or technology help for filing and commercialization of his invention or patent. India lacks in technology transfer offices and governmental agencies and which may help in licensing or collaboration of an invention. Bearing in mind all the above issues, an independent inventor finds difficulty in getting a potential assignee or licensee for his invention which results in loss for further advancing his invention. Considering all these aspects, more often than not the inventor drops the idea of filing a patent application leading to a loss of technological advancement.

8. SOME INITIATIVES TO OVERCOME THE ABOVE CHALLENGES

In order to help independent rural inventor, lot of work needs to be done at the grass root level. India is the hot bed of inventions, specially the rural areas where lot of inventions are evolved. Today the first and the foremost practice should be to establish fund raising institutions where every inventor would get financial and technological help. These institutions should have easily approachable sources in remote areas of the country. As such institutions are already established but there are number of problems which finds unsuitable in eradicating such issues.

- Formation of companies like Intellectual ventures, National Institute of Patent Management and Gujarat grassroots innovations Augmentation Network helps in clearing such issues but more work should be done for all around development of an independent inventor.

- Marketing campaigns are designed for reaching more and more of rural population and making them brand loyalists in due course of time.
- All stakeholders – Government, NGOs, Civil society and Corporates – have a role in enabling this growth while overcoming the attendant challenges.
- With the right kind of public-private partnerships we can address the challenges by finding innovative solutions and build on the opportunities.
- Rural credit – Banking services need to be popularized and credit should be available for innovation.
- Government support the development and implementation of cutting edge industry solutions, funding is available to incorporated provincial businesses to support activities leading to the development of innovative, market ready products and services. The Commercialization Program bridges an identified funding and investment gap between product research and product marketing.
- Setting up fund raising institutions in remote areas of the country.
- Setting up of technology incubators who help in finding licensee or assignee for an inventor.
- Setting up government aided technology resource centres such as Department of Science and Technology where an independent inventor would use each and every aspects of R&D for betterment of his invention.
- Setting up knowledge networks where an inventor can access multiple expertises and free counseling from different industrial sectors at one window services.
- Setting up easy patent information system or patent directory to perform searches at various levels.
- Modifying the complex patent system, and rebate in patent filing fees for an individual inventor.
- Incentivizing those lawyers and patent agents who help the independent inventors.
- Launch low fees programs and workshops for the inventor to learn basics of intellectual property law so that an inventor can draft their invention or application themselves.
- Setting up of such institutions or groups that can identify the potential inventions from remote areas of the country. Institutions like Gujarat grassroots innovations augmentation network, National Innovation Foundation and Biotechnology Consortium of India limited should come forward to help and reap such inventors who are financially weak but stronger with brains.

- Bringing new reforms in licensing agreement or in commercializing the inventions as the cost of licensing or commercializing are in lakhs of rupee which would be like a dream for an independent inventor.

9. SOME INITIATIONS OF INDIVIDUALS

- ***The Jamnalal Bajaj Social Development*** Project has taken an initiative for helping innovators all over the country. This will be a national register of innovations which helps any individual to replicate these remarkable innovations in their own lives and convert them into viable business opportunities.
- ***Society for Rural Industrialization (SRI)*** provides trainers for many organizations and regularly conducts technology awareness programs for officials of Central and State Governments, Technological and Research institutions, Industries and Financial institutes.
- ***Nimbkar Agricultural Research Institute (NARI)*** undertakes R&D in agriculture, renewable energy, animal husbandry and sustainable development.
- ***The Aga Khan Development Network (AKDN)*** is a group of development agencies with mandates that include the environment, health, education, architecture, culture, microfinance, rural development, disaster reduction, the promotion of private-sector enterprise and the revitalization of historic cities. AKDN agencies conduct their programs without regard to faith, origin or gender.
- ***The Department of Biotechnology (DBT)*** invites proposals from Indian Companies under the SBIRI Scheme for support of early stage, pre proof-of-concept research & development of research leads towards commercialization in all fields of biotechnology. http://www.dbtindia.nic.in or http://www.sbiri.nic.in.

Public/Cooperative Sector/Government Initiation:

- ***The Government of India***: It is funding rural development and fuelling its growth through various sponsored schemes like National Rural Employment Guarantee Act (NREGA), and Sampoorna Grameen Rozgar Yojana (SGRY) etc – the government has allocated a total of INR 535 billion (US$ 11.78 billion) in 2009-10 and has also provided wide ranging subsidies for rural initiatives.
- ***North Eastern Development and Finance Corporation:*** It is a public limited company that provides financial assistance to micro-level to large enterprises for setting up industrial, infrastructure and agri-allied projects in the North Eastern Region of India apart from microfinance through MFI and NGOs. It is the designated

nodal agency involved in the distribution government incentives to the industries in the North East Region of India. http://www.nedfi.net/

- ***Jilla Sahakari Kendriya Bank:*** It has been providing various banking and financial services to rural population in 82 naxal affected villages in the country through mobile banking. They have been facilitating schemes such as MNREGA, various credit card schemes etc.
- Host of projects, such as NREGA, ITC's echaupal, HLL's project Shakti, retail hubs like Kisan Sansar (Tata), Haryali Kisan Bazar (DMC), both from the government and the private companies, have changed the rules of the marketing game in rural India.

10. SOME OF THE SUCCESSFUL RURAL INNOVATIONS IN INDIA

10.1 Innovations by some individuals:[6]

a) ***Sorghum Syrup:*** The versatile crop is widely used for producing ethanol, sweet syrup & as the forage & silage for animals, all these benefits can be derived from the cultivation on a single piece of land. It has 25 varieties & 2 hybrids. It has one of the highest water use efficiency among crops. The plant is cheap to grow.

b) ***Jhatropha Cultivation:*** Jhatropha carcass is an oil yielding plant with vast industrial potential as bio-diesel. Truly the most practical way to achieve prosperity in the rural sector is by cultivation of jhatropha on lands that are underused or unsuitable for conventional agriculture. The cultivation and subsequent cropping of the Jhatropha Curcas, which is the end product, expected from this plant as against woody biomass expected from agro-forestry crops.

c) ***Safflower seed and petals:*** NARI (Nimbkar Agricultural Research Institute) has developed various safflower varieties and hybrids for both high oil content and petals. Petals are obtained from capitulum after the seed is mature. They are generally harvested just before seed-harvest. Thus they are naturally dried.

d) ***Agro-Forestry:*** If one is looking for a crop that could grow with less irrigation and uncertain rainfall conditions but at the same time could provide good returns without intensive supervision then your search ends here. The benefits of Eucalptus are yet to be discovered by the entire world. Various products can be made of Eucalyptus along with technological options.

[6] http://www.innovationsofindia.com/innovations/default.htm, http://www.nariphaltan.org/nari/technology_main.php

e) ***Organic and Natural Farming:*** Organic farming sustains itself with minimum human intervention and does not use inorganic fertilizers or toxic pesticides and Natural farming is farming as nature itself meant it to be. In nature, each creature, leaf, and blade of grass helps to moderate the environmental balance. And when these die, they leave behind their contribution of fertility for generating new life.

f) ***NOORIE Lantern:*** The new modified Noorie lanterns have a space shutter technology on lanterns. It can run on kerosene, diesel or ethanol. (Sweet sorghum could produce ethanol, which could be used as fuel.) It has changed wick, coated with high temperature materials (silica cloth suits the most) thermo luminescent salt that glows when they get hot from the wicks that burnt, charred & had low-energy efficiency. A special glass to reduce the chances of explosion & to brighten the light. The top cover can be removed and a utensil can be placed over the chimney for cooking use. It produces light equal to a 100-watt bulb.

g) ***Nidham Chullah:*** His Mission was to provide a "Human" approach to science by bringing harmony among education, science and technology and their application by working in numerous fields in the application of Science and Technology for rural development with the result various technologies have been promoted through Lok Bharati Students in adopted villages. *Innovations:* Nidham Chullah, Modified version of Solar Cooker, Wind map of Gujarat, Various projects on Biomass gasifiers, solar cookers, Windmills, Solar TV Solar Stills, Solar Lanterns, Solar Water Pumps, Solar Water Heating Systems, Biogas Plants, Solar Light Sets and others energy savings devices. New solar cell has been developed which will produce 14% more electricity. "Energy Park" containing attractive exhibition and working models of Non-Conventional Energy Sources. Also prepared literature on Non- Conventional sources of energy and organizing models of workshops. Work being done for preparing new silicon cell and testing project.

h) ***Rasoi Ghar:*** It is a community kitchen shared by several households of one village- a modern version of the traditional sanjha chulla. Centrally located in a target cluster of a selected village, the Rasoi Ghar is a ready kitchen set up in a pucca house, allowing several villagers at a time to cook their daily meals comfortably, safely and quickly. Each rasoi ghar is equipped with an adequate water supply; a cooking slab; basic cooking utensils and a minimum of 2 stoves connected to replaceable LPG cylinders.

i) ***Sanitary Hand-flush latrine:*** The old practice of dry latrines is inhuman and unhygienic and also leads to diseases like diarrhea, dysentery, cholera, hepatitis,

worm infection, etc. Adopting a low-cost technology in which locally available materials and resources can be used can develop proper disposal of human excreta, and improved sanitation situation. Thus, low cost pour flush water seal latrine is medium solution in both dry latrines and sewerage system. Low cost pour flush water seal latrines is the most economical and appropriate technology for safe disposal of human excreta.

j) ***Elecsha:*** On the new efficient rickshaw, another feature of "Power Pedaling" is added & this version is called Elecsha. It has the potential to provide attractive alternative to petrol & diesel powered three wheelers. It is completely battery driven and powered with 3 gears. It has the modified Back-Wheel braking system. It consumes energy at the rate of about 103 whr/per km. An estimate cost would be about Rs.50,000 - Rs.60,000 in mass-production as against a cost of Rs.75,000 - Rs.1,00,000 of a petrol/diesel powered three wheeler.

k) ***Solar-still Town Planning - Talukas:*** It is a novel way to grow plants on hot & arid wastelands with little rainfall. All soils contain some moisture & plant roots tap this moisture by osmotic-pressure difference. But, in arid regions, the water is so tightly bound in the soil that it is not easily available to the seedlings because of their shallow root system & inadequate osmotic potential. So solar still uses the heat of solar radiation to free the water bound in the soil & use it for irrigation. This still is required only until the seedling gets established on the ground. A single pit on an average produces 300 milliliters water per day enough to sustain four seedlings. The solar still costs less than Rs.200 to build.

l) ***Rural Energy Technology:*** The concept of Rural Energy Centers emphasize the role of renewable sources of energy in providing decentralized energy sources total village, making it independent of the commercial sources as far as possible. The technology includes equipment and systems based upon solar, wind, biomass and muscle power; Solar cookers of family and community types and parabolic types for frying; Solar stills, solar water heaters; Solar photovoltaic systems for pumping water, for street lights and for running televisions and radio sets. Wind energy conversion systems like wind-mills and aero-generators. Domestic and Community types of bio-gas plants based on human wastes, agricultural and animal wastes for generating energy for cooking, lighting and to energies chaff-cutter and flour mill.

m) Society for Rural Industrialisation (SRI)

SRI provides trainers for many organizations and regularly conducts technology awareness programs for officials of Central and State governments, Technological and Research institutions, Industries and Financial institutes. All functions of SRI are linked with technology transfer. SRI has trained about 18,000 villagers on different technologies and around 100 NGOs on Technology Management in different States. SRI was originally designed as an Institute to act as a model for Integrated Appropriate Technology Management System (ATMS) to ensure that science and technology reaches the villages and mainly the marginalised sections therein.

Information Technology: Aims at communities and families to plan activities based on scientific collection of verifiable data, assessing potentials and limitations of options, scheduling works and monitoring performance. This exercise is termed P4 (Participatory Perspective Plan Preparation) Exercise.

Biotechnology: SRI acted as the co-ordinator for National Programme on Carp breeding.

Construction Technology: Innovations include random rubble filled concrete blocks as substitute for brick, prefabricated rafter-plank and shell roofing, sand and stone compact foundation for buildings and enveloping arch foundation for small dams.

Processing Technology : Focus is on bulk preservation of agriculture, horticulture and forest produce. Seven modulated technologies are used. Innovations cover Bamboo workshop, energy food using Mahua & Marua, ready-to-serve drinks, natural vinegar.

Electromechanical Engineering: Developed devices i.e.Washer Pump, Pedal operated stone shaper, combine Lac processor, gauze-cutter, various processing equipments.

Land and Water Management: Innovated Flexi-dam concept to replace check dam. SRI is instrumental in introducing large scale application of mechanized pond digging and was the co-ordinator of National Programme on Land and Water Management.

Health Engineering: Most important innovations are Panchayat level Sanitary napkin production, and, sourcing, filtering and purification of household water. Community health service as an Adolescent girls programme has been introduced. Food and nutrition security as women's enterprise is the new thrust area.

Energy Technology: From small 10kW dual fuel services, SRI has established a 100 KW station run by Bedia community. Hydrogen generation, storage and transport, manually charged LED reading lamps are being taken up.

Agricultural Engineering: Agriculture-Horticulture database of 22 districts of Jharkhand has been prepared, System of Rice Intensification has introduced for upland cultivation by marginal farmers. Farming protocol for medicinal plants is provided.

n) ***Large-scale Dew collection:*** It is a source of fresh water supply for plants & some animals in costal & inland desert areas. It envisages bringing cold sea water from about 500m depth and about 5km from the shore, in plastic pipes, then it passes through a heat exchanger where it condenses about 643 cubic meter dew over a period of 24hr. This pumping of sea-water is accomplished by three 200KW wind machines.

o) ***Low-Density Biomass gasifier:*** It is a low density biomass gasifiers equipped with Sophisticated Programmable Controller (SPC). It regulates the biomass feeding, ash removal rates, assist the operator during trouble shooting & ensures smooth operations of the system. Quick start-up & shut-down sequences (ten minutes for the cold start & less than three minutes for a hot start, & a three minutes shut down.) It has a hot gas cleaning system. It also ensures a zero waste water discharge. It produces "Char" which is a useful byproduct. It is a reliable & user friendly system.

p) ***Solar Detoxification of Distillery Waste:*** The dark, obnoxious smelling effluent from distilleries is largely polluting Indian countryside, which is also very high in COD & BOD. This effluent is stored in open lagoons & seeps through ground water supply, sometimes it is directly discharged in the rivers & irrigation canals. With the increasing scarcity of fuel & ethanol being used as a substitute the problem of environmental pollution becomes worse as Ethanol produces about 15 times its weight distillery waste. Solar Detoxification of Distillery Waste is a successful technology for the treatment of this effluent by solar energy. Diluted raw effluent when mixed with suitable chemical & exposed to sunlight becomes completely odorless & colorless, also COD content is drastically reduced.

q) ***Saral Rozgar:*** Saral Rozgar, is a first of its kind mobile VAS solution from CanvasM targeted at providing utility based services to bottom of the pyramid. A blue collar job hunter (like driver, maid, supervisor, plumber, electrician, salesman etc.) will be able to create resumes and apply for jobs through their mobile handsets.

10.2 Multinational Initiatives for Rural India:[7]

Indian and Multinational corporations have not limited their innovative solutions for Indian markets only. They are actually taking these innovations to international platform and are treating India as a Innovation and Research Hub.

a) Maruti Suzuki - Traveling cinema:

Maruti has been organizing road shows with film screenings. This is much like a travelling cinema that rural India is already quite familiar and fascinated with. The only difference being that the film is not set up in a tent, but inside a TATA truck fitted a Samsung LCD TV, an air conditioner and reclining seats. The film strikes a chord with the villagers because it tells a simple story of an average villager who buys a Wagon R after being persuaded by a friend who also bought a Wagon R.

b) The Tata's in Rural India:

- Tata Chemicals ran a chain called Tata Kisan Kendra, which offered farmers a host of products and services ranging from agri-inputs to financing to advisory services.
- Rallis, on the other hand, was partnering ICICI Bank and Hindustan Lever in offering deals to farmers that covered operations from the pre-harvest to post-harvest stage.
- In 2004, the two operations were merged and Tata Kisan Sansar, a network of one stop shops providing everything from inputs to know-how to loans, was launched. Today, the Tata Kisan Sansar has 421 franchisee-run centers in three states and reaches out to over 3.6 million farmers.

c) IT innovations in the rural sector:

- **mKRISHI:** The award winning agro advisory innovation developed by Tata Consultancy Services is used by farmers to send farming related queries through mobile in their local language to experts and get their opinions on the same.
- **e-Choupal:** An initiative by India's leading FMCG, ITC, e-Choupal has been a powerful innovation in passing on the benefits to the farmers by providing them farming information and services.
- **Parry India Agriline:** Is an innovation by EID Parry (a Tamil Nadu based agriculture company) that aims at leveraging the use of internet to provide

[7] http://www.dare2compete.com/blog/featured/innovations-in-rural-marketing
http://www.oifc.in/investing-in-india/investment-info/in-focus/innovation-in-rural-india-treasures-from-india-bottom-of-pyramid

benefits to the rural sector. Agriline connects farmers and others in rural India to markets.

- **Computer On Wheels :** IIT Mumbai in collaboration with an NGO has provided this service in Mehboob Nagar in Andhra Pradesh, whereby the service provider brings a laptop to villages along with a GPRS connectivity and helps locals access services/information for a charge.

d) Philips Goes Rural:

- People in rural India don't have light because they are either living in a place where the grid is unreliable and erratic or in off-grid locations**.** Philips has planned three kinds of lanterns.
  i. The first, which is based on a battery charger, is targeted at locations with partial grid situation.
  ii. The second uses solar energy to charge and can be used at places with no grid at all.
  iii. The third is the general purpose cranking torch that uses LED bulbs for light.

  The products are expected to be priced between Rs.500 and Rs.2,000. Philips as well launched mahasangram in 2002.
- It launched a powerless radio that requires one-minute of winding to work. One does not need batteries or electricity for this product as it converts mechanical energy into electrical energy.
- The company has also developed a colour television set that detects poor signals and boosts them to deliver better picture. That is because most people in far-flung rural areas have to put up with poor signal reception.

e) Godrej & Boyce:

- ***ChotuKool Refrigerator:*** Powered by battery, a perfect refrigerator for rural population. Does not require regular electricity supply unlike the conventional models. Providing the rural/ semi-urban areas with a high-end product, the company pays commission of US$ 3/ refrigerator to the rural agent; making rural population the last mile connectivity of its supply chain.

f) VortexBanking:

- ***Low cost ATM:*** Low-cost Automated Teller Machines (ATM) which provide banking solutions to people in rural/ semi-urban areas. The machine consumes very less power, and has an elegant, rugged and reliable Cash Dispense Module. A wide range of products meant for rural and semi-urban bankers makes the

financial operations seamless and uncomplicated. A wide range of products meant for rural and semi-urban bankers makes the financial operations seamless and uncomplicated.

g) Tata Chemicals:

- ***Water Purifier:*** Swach range of water purifiers promise pure drinking water to the rural people at a very low cost of INR 999. It does not require running water or electricity to provide harmless, bacteria-free drinking water. The winner of the gold at the Asian Innovation Awards 2010 would be rolled out nationally and then in emerging markets across Africa, South-East Asia and Latin America.

h) HUL:

- ***Khushiyon ki Doli:*** The multi-brand rural engagement module- Khushiyon ki Doli- provides various personal care and home care brands such as Wheel, Surf Excel, Fair & Lovely, Sunsilk, Vim, Lifebuoy and Close Up. The main objective of the campaign is to reach out to media dark villages with HUL brand messages to inculcate good personal hygiene habits among the people. Shakti distributors now account for 15 per cent of the company's sales in rural India.

i) Nestle:

- ***Smaller packs of maggi noodles and tomato ketch-ups:*** The initiative aimed at 'indianising' Nestle's global portfolio to propel its growth in the rural markets. The company promises nutritionally superior products for people residing in the hinterlands. With an aim to penetrate into rural markets, Nestle has strived to create products specifically for the consumers at the bottom of the pyramid. The taste maker introduced not only delights the taste buds, but also adds nutritional quality to the food.

j) Nokia Software:

- ***Nokia Life tools:*** The mobile application, launched in June 2009, empowers people to have access to agricultural, educational and entertainment content. Nokia has tied up with government organizations, NGOs and Reuters for this campaign and has partnered with Idea Cellular as the service provider. It has launched an ancillary microfinance campaign to facilitate handset purchase in the rural areas.

k) ITC: **Agriculture**

- ***e-Choupal:*** An initiative by ITC, e-Choupal aims to empower farmers with up-to-date agricultural and marketing information through access to internet and

computers. The campaign was launched in 2000 and targets to empower 10 million farmers by 2012. e-Choupal delivers real-time information and customised knowledge to improve the farmer's decision-making ability, thereby better aligning farm output to market demands; securing better quality, productivity and improved price discovery.

l) GlaxoSmithKline:

- ***Asha- milk food drink:*** GlaxoSmithKline's Asha, which is 40 per cent cheaper than the regular variant of Horlicks, is the first product from the UK-based MNC designed for rural consumers. Realising that right product needs to reach the right consumer in time, the company will continue to identify and bridge need gaps for consumers, particularly in terms of nutrition products and their availability.

m) Hero Honda:

- ***Splendor:*** Hero Honda Motors Ltd., a joint venture between India's Hero Group and Japan's Honda Motor Co., has bet big on rural India by selling fuel-efficient motorcycles designed for shallow pockets. Splendor, for instance, costs US$ 800.

11. CONCLUSION

Rural India is a powerhouse waiting to emerge in the globe. This is an incredible opportunity of potentially adding USD1.8 trillion to our economy, equal to the current GDP of India. The exciting vision has to be the convergence of rural Bharat with urban India. There is an opportunity to create a thriving rural middle class, even bigger than in urban India. So, there is a need to build a new generation of leaders and entrepreneurs from our villages who will help power the future of our nation. In order to realise this vision, India need a broad based strategy to provide rural India access to markets and technology, financial inclusion, and human capital development.

12. REFERENCES

http://www.akdn.org/rural_development/india.asp

http://dir.groups.yahoo.com/group/aimsindia/message/4784?o=0&var=1

http://yourstory.in/2012/09/3-challenges-buckling-rural-india-and-the-looming-opportunity/

http://www.akdn.org/default.asp

http://www.sumit4all.com/life/why-indias-urban-development-is-important-for-the-nation

http://www.oifc.in/investing-in-india/investment-info/in-focus/innovation-in-rural-india-treasures-from-india-bottom-of-pyramid

http://www.cii.in/Sectors.aspx

http://www.nistads.res.in/indiasnt2008/t6rural/t6rur6.htm

http://www.ibef.org/industry/consumer-markets/rural-market.aspx

http://www.ijph.in/article.asp

https://www.spidergap.com/?gclid=CLPsgvKFg7UCFU0s6wodXlYAwA

http://blog.ennovent.com/2012/08/ideas-man-professor-in-quest-for-indias-rural-inventions/

http://quicksand.co.in/