

ANVESHANA... Search for Knowledge

Bi-annual Volume 6 Number 2 July - December 2016

Dr. Anjali Mishra
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Ecological Footprints of Cities in India

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**Rural Development in India through
Entrepreneurship: An Overview of the
Problems and Challenges**

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**Climate Change and Impact-Role of
Younger Generation**

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**A Southern Music: The Karnatic Story –
A Book Review**

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A. J. INSTITUTE OF MANAGEMENT(AJIM)

An Advanced Centre for MBA Studies and Research
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From the desk of the Editor-in-Chief.....

There is no gain saying the fact that under the changing educational environment, maintaining quality in all academic pursuits is a challenging proposition primarily because what is sought to be groomed is an intellectual capital. Hence, it is quite evident that to operate successfully, the managers of academia must have a thorough understanding- explicit rather than implicit of what to offer to the society in terms of need based academic mix. Further, all said and done, these disturbing signals should not be viewed as irreversible misfortunes, instead to be perceived as opportunities for guiding the present youth in the nation building activities with a sense of purpose, direction and pride. Every one is concerned to know that education begins with the quality and ends with the quality in all its facets and quality publication is one of the most important requirements of discharging institutional responsibility. Hence, A. J. Institute of Management is bringing out this research journal Anveshana, for the last six years with quality research articles, conceptual papers, empirical reports and book review of the renowned writers.

To ensure the quality and credibility further, Anveshana is indexed in J gate- a renowned e-journal and the readers can access Anveshana on-line in J gate through i-scholar portal. We are happy to bring out Volume 6 No. 2 of Anveshana comprising

- “Ecological Footprints of Cities in India” jointly authored by Dr. Anjali Mishra, Mr. Himanshu Chandra and Dr. A.K. Singh.
- “Rural Development in India through Entrepreneurship: An overview of the Problems and Challenges” reported by Dr. S. Vijaya Kumar.
- “Climate Change and Impact-Role of Younger Generation” authored by Dr. P. Selvaraj.
- “The Wonderland of Equity and Real Estate Investment” presented by Mr. Gerard Colaco and Mr. Deepak K. Rao.
- “Financial and Nonfinancial Impact on National Rural Employment Guarantee Scheme: A Case Study” authored by Dr. Sureshramana mayya and Mr. K.G. Sudhakar.
- “Corruptions and Corporate Corruption” as viewed by Mr. Nama Nishtha Das, ISKON Swamiji turned IIT, Kanpur Alumnus .
- “A Southern Music: The Karnatic Story – A Book Review” authored by Prof. Balakrishna.

J. Jayaprakash Rao
Dr. T. Jayaprakash Rao
Editor in Chief

Ecological Footprints of Cities in India

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Abstract

Urban expansion is almost always over the best agricultural land, because it is usually easy land to build on. This takes away the most suitable soils from agriculture. Urban and industrial developments sometimes compete with agriculture for scarce water resources, with agriculture generally being the loser. Felling and overexploitation of forests for urban and industrial development destroys natural ecological balance. Intensive agriculture destroys the natural ecology by replacing diversity with monocultures, and by the use of pesticides and herbicides. Wetland and coastal reclamation destroys an ecology that is impossible to replace, and bring harm to the sensitive ecosystems. An urban environment is complex primarily because of rapidly changing variables such as socio-economic and demographic indicators, land-use patterns, resource demand and utilization patterns, lifestyle changes etc. In the light of climate change, a new layer of uncertainty is added in terms of changes in precipitation, temperature and occurrence of extreme events. Furthermore, there are scale mismatches; in terms of the time scales over which policymakers and urban planners operate, and scales over which projected impacts of environmental decisions, degradation, climate variability and change will manifest. Also policies and developmental initiatives in cities should enable urban systems to adjust to changes as and when they happen and accordingly respond in a way that maintains their original structure and function. It is to be noted that out of 55 cities in India having population over a million, 18 are in coastal states. Major challenge for cities in the face of rapid population growth is to maintain sustainability within the social,

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economic and environmental dimensions. Urban systems are at risk to different kind of hazards. Several factors contribute to the urban risk profile. Present paper purports to examine the dynamics of urban environment, sustainability and development in the context of changing global environmental changes.

Introduction

The population growth and the demographic shift from rural to urban areas are challenging the urban governance system and for other actors to provide the basic civic services to the urban dwellers. Growing urbanization is posing serious environmental concerns in India in terms of changing land use pattern, increasing carbon emissions, solid waste generation and disposal, air and water pollution and poor sanitation amenities. A large segment of urban population in the state resides in slums, peri urban areas, squatters and informal settlements. These settlements are often located in low lying areas prone to direct and indirect risks due to environmental degradation . Moreover, over exploitation of ground water resources in urban centers for quenching the thirst of increasing urban population, changing lifestyle, and water uses for various purposes is cause of concern. Due to unregulated housing and building construction, lack of proper drainage and sewer network and also ineffective functioning of sewerage system, urban centers are at high risks .The blockage and choking in drainage sewer system leads to water logging and flash flood in urban centers. Increasing urbanization, expansion of habitat into unsuitable vulnerable areas, higher population density, higher housing density, vulnerable housing and buildings construction, non engineered unsafe construction, and aging buildings and other infrastructure are some of the factors that have increased the vulnerability of hazards and disasters in urban areas. The accelerated and uncontrolled urban growth has contributed to the ecological transformation of the cities and their immediate surroundings resulting in flash floods and water scarcity.

Urbanisation and Environment

The rapid urbanization has put pressure on the existing resources and

basic services like potable water, well laid-out drainage system, sewerage network, sanitation facilities, electricity, roads and waste disposal. It has resulted into numerous environmental and health impacts. The green cover and water bodies have been destroyed to give way to the rapidly developing urban centres. Modern buildings in cities have high levels of energy consumption in air-conditioning and lighting. Thus, unplanned and unsustainable urban development has lead to severe environmental pressures. These challenges can be summarized as under (Singh and Pandey, 2012):

- *Slum Development:* The polarization of growth towards metro cities and mega cities poses a greater challenge to provide housing in urban areas, which are rapidly becoming areas of crowded habitations without basic amenities. This gets reflected in an increasing proportion of slum population which constituted 28 per cent of the urban population. Some of these areas are very dense.
- *Wastewater Generation and Water Pollution:* Adequate quantities of water are required for healthy living for drinking, cooking and washing. Because of the population growth and urbanization the gap between per capita water supply and demand is getting bigger. This is putting pressure on water resources of the area.
- *Land Resource and Vegetation Degradation and Destruction:* The higher density of housing is putting pressure on land resource and vegetation which is leading to reduction of green cover and further loss of green infrastructure.
- *Reduction in Biodiversity and Forests and Green Cover:* The rapid clearing of trees and converting parks for giving way to housing is leading to decreasing green belt.
- *Traffic Related Air and Noise Pollution:* The explosive growth in the number of vehicles is a big problem in many cities. Many cities have major difficulties in coping with the chaotic automobile traffic. The traffic jams are frequent and bad in many cities and traffic in the city area at least during the peak-hours is awfully slow. The Air pollution is high due to air

emission of pollutants and causes respiratory diseases to city habitants.

- *Sewage Generation and Pollution of Urban Water Bodies:* The lack of sanitation and sewage treatment is the biggest contributor of water pollution. Local water bodies and rivers are used as a dumping ground for untreated water from many urban areas and industrial clusters.
- *Solid Waste Generation:* Solid waste management means proper collection, transfer, recycling and disposal of solid wastes. In many cities the solid waste disposal is inefficient or non-existing. In such areas waste ends up to the illegal dump on streets, open spaces, ponds, lakes, wastelands, drains or rivers. Sometimes they are collected to the land sites but the protection of water bodies and groundwater is not active.
- *Climate Change:* Modern buildings have high levels of energy consumption because of requirements of air-conditioning and lighting. In addition, the urbanization has led to increasing vehicular density and consequent consumption of fossil fuel. This leads to increasing release of green house gases, resulting in contributions to climate change.
- *Skirting of Planned Growth by Unplanned Settlements:* This is a classic phenomenon present in Indian cities. It is manifested in the form of mushrooming of private housing colonies around officially planned housing projects, without any consideration to green infrastructure, civic systems or sustainable urban governance. The phenomenon is also seen in peri-urban areas in proximity to the 'ring roads' constructed in the periphery of cities.

In order to achieve the desired outcome that encompasses the above state dimensions following policy options and actions are suggested (Singh and Pandey, 2012):

- *Creation and Management Green Infrastructure:* Urban green infrastructure comprise of all natural, semi-natural and artificial networks of multifunctional ecological systems

within, around and between urban areas. Green infrastructure can provide numerous ecosystem services such as purification of air and water, pollution control, mitigation of floods and droughts, re-generation of soil fertility, moderation of temperature extremes, carbon sequestration, climate change mitigation and enhancing the landscape quality. Deliberately planned, developed, and maintained green infrastructure.

- Wastewater Treatment, Recycling and Appropriate Use:** Urban systems create vast quantities of wastewater through inefficiencies and poor management of water systems. The wasting of water poses sustainability challenges, depletes energy reserves, and undermines human water security and ecosystem health. Approaches for reusing wastewater and minimizing its generation are urgently required. Water pollution from sewage is causing great damage to India. Urban planning has directed its efforts more towards supplying water to their citizens than about the waste water generated. The effluent often goes into streams, lakes and rivers, or seeps into the ground to contaminate drinking water. Nitrate levels in groundwater across India exceed 45 milligrams per litre which is sign of sewage contamination. Treatment of domestic wastewater, sewage and wastewater from industrial clusters is vital for balancing urban growth and environment.
- Waste Management:** Managing solid waste is one of biggest challenges of the urban areas in India. In spite of heavy expenditure by civic bodies, management of municipal solid waste remains one of the most neglected issues of urban development in India. The current practices of the uncontrolled dumping of waste on the outskirts of towns/cities have created serious environmental and public health hazard. Solid waste management should lay emphasis not only on waste disposal but also on minimization, waste recycling and conversion of waste to energy.
- Green Transportation:** It is not urbanization alone which affects environmental sustainability, but also how people

move about the city. Countries that rely on private transport use more energy per passenger kilometer than countries with high levels of public and non motorized transport modes. Good land use policies can also encourage the trend of using mass transportation system. Therefore, the issues which need to be considered are good quality and affordable mass transportation system, road infrastructure, fuel quality and traffic planning to make city transportation eco-friendly.

- **Affordable Housing:** With increasing concentration and growth of economic and commercial activities and influx of population in Indian cities, the demand for affordable housing delivery is intense, resulting in the proliferation of slums. Affordable housing to the poor sections of the society in ever growing cities is much needed to avoid development of slums.
- **Energy:** Buildings are highly energy intensive through their life cycle consuming about 40% of the world's primary energy supply globally. Cities pose a unique challenge to engineers in that they require concentrated energy supplies. Type of energy source will significantly affect the environmental quality of any city. In order to promote growth and also mitigate climate change, cities will need to shift energy sources, improve energy efficiency, and increase city density.

Waste Disposal & Environment

Waste generation is associated with human civilization. In India, average per capita waste generation ranges in between 400 to 700 gms. per day. However, the quantity of waste generation depends upon the life style and economic activities. Waste disposal in urban areas is the main responsibility of urban local governments. The wastes may include municipal solid waste, hazardous waste, sewage, sludge, clinical waste, agricultural and industrial waste as well as commercial waste. There has been a significant increase in the generation of municipal solid waste in India over the last decades. India generates more than 48 million tons of solid waste per year. The waste generation has been reported significantly high in the metropolitan and larger cities and low in the small cities. Out of total

waste generation in urban areas, about 25 per cent waste is reported to be hazardous. The hazardous waste is mainly generated by high polluting industries, hospitals, medical centres and nursing homes. The quality of waste generation in South Asia has been reported to be poor and thus, it cannot be converted into fuel due to its low calorific value. Most of the waste generated so far may be categorized into biodegradable and non-biodegradable. Most of the studies have highlighted the poor infrastructure and facilities for collection, segregation, transportation, handling and disposal of the waste. There are several technologies for the disposal of the waste; however, landfill is the most important technique for disposal of the waste. However, land filling in India lacks the scientific processing for disposal of the waste. Other technologies include pulverization, baling, compositing, incineration, briquetting, pyrolysis, gasification, and biogas (Singh and Khanna, 2005). When plague spread in Surat City, scientists explored that due to failure of proper handling and management of the solid waste, the problem emerged after a long time. Thus, Government is equally conscious for the proper handling and management of the solid waste. Ministry of Environment & Forest, Government of India has already formulated Municipal Solid Waste, (Management & Handling) Rules, 2000. These rules are applicable to every municipal authority that is responsible for collection, segregation, storage, transportation, processing and disposal of municipal solid waste. The rules have made provisions that waste will not be incinerated and municipal authorities will make the necessary arrangements for proper handling and management of solid waste including collection, segregation, storage, transportation, processing and disposal. Except in case of bio-medical waste which is supposed to be incinerated, the rest waste is supposed to be safely disposed off by the municipal authorities. The standard norms and practices for the safe disposal of the waste are also being given in the rules.

Waste Recovery and Recycling

Various components of MSW have an economic value and can be recovered, reused or recycled cost effectively. Currently, the

informal sector picks up part of the resources from the streets and bins to earn their living. However, a sizeable portion of organic waste as well as recyclable material goes to landfills untreated. Over 81 per cent of MSW annually is disposed at open dump sites without any treatment. With planned efforts to Reduce, Reuse, Recover, Recycle and Remanufacture and appropriate choice of technology, the country can profitably utilize about 65 per cent of the waste in producing energy and/or compost and another 10 to 15 per cent to promote recycling industry and bring down the quantity of wastes going to landfills/ dumps under 20 per cent. The percentage of wet biodegradable waste is high in Indian waste and is a source of contamination of soil, water and air, if it is disposed indiscriminately. Biodegradable waste has a good potential for generating biogas, which can serve as fuel, can also be converted to energy as well as to compost which can improve soil health and lead to increased agriculture production. This wet waste must therefore be processed either through bio-methanation or composting technology for generating biogas, electricity or compost for use as nutrient and prevent such wastes reaching the landfill. Considering that reusable and recyclable wastes form 20-25 per cent of the actual waste generated (which does not include the wastes collected by the kabadiwalas from source of generation). Plastics, paper and glass constitute 17 per cent of the recyclable wastes. Plastic wastes including composites are high calorific value material and crucial ingredient for MSW based waste to energy plants. This material also needs to be fully recovered and profitably utilized. The next step should be to strengthen segregation of the non-recyclable dry combustible MSW at secondary storage depots/transfer stations and optimally utilize this material in the form of RDF which can be fed to waste to energy plants waste to energy plants power plants and as auxiliary fuel in cement and metallurgical industry. Setting up of small to large plastic waste to liquid fuel plants, thereby utilizing the plastic not picked up by kabadiwalas and rag pickers, also needs to be encouraged.

Management of Urban Lakes

Lakes are important part of urban ecosystem. Lakes perform significant environmental, social and economic functions as source of drinking water, recharging groundwater, controlling floods, supporting biodiversity and providing livelihoods. At present, lakes and wetlands are in extremely bad shape and are in varying degrees of environmental degradation. Despite knowing their environmental, social and economic significance, these water bodies have neglected and destroyed (CSE, 2014). Today, these water bodies are encroached, full of sewage and garbage. Due to unplanned urbanization, much of the landscape around the lakes has been covered by impervious surfaces. As a result, instead of rainwater, it is the sewage and effluents that are filling up urban water bodies. Once the sponges of urban area, today urban lakes have turned into hazards. It is the disappearance of these sponges of the city which has exacerbated floods and sharpened the pain of droughts (CSE, 2012).

Although, there are number of policies and acts for the protection and restoration of urban lakes and wetlands, urban water bodies are in extremely poor condition. Their numbers are declining rapidly. In the beginning of 1960s Bangalore had 262 lake, now only 10 hold water. Similarly, in 2001, 137 lakes were listed in Ahmadabad city, and over 65 were reported being already built over (CSE, 2012). In Delhi in 2010-11, it was found that 21 out of 44 lakes were gone dry due to rapid urbanization and falling water tables (Singh & Bhatnagar, 2012). During last 12 years, Hyderabad has lost 3245 hectares area of its water in the form of lakes and ponds (Times of India, 2012). For the last two decades, urban water bodies have been a victim to unplanned urbanization in India, because of which they face several threats. These are pollution, encroachment, illegal mining activities, ungoverned tourist activities and cultural misuse. There has been an explosive increase in the urban population without corresponding expansion of civic facilities such as adequate infrastructure for the disposal of waste and are used for disposing untreated local sewage and solid waste, and in many cases the water bodies have been ultimately turned into landfills. Encroachment is another major

threat to water bodies particularly in urban areas. As more people are migrating to cities, the availability of land is getting scarce. Today, even a small piece of land in urban areas has a high economic value. Hence, these urban water bodies are no more acknowledged for their ecosystem services but as real estate. Illegal mining for building material such as sand and stones both on the catchment and on the bed of the lake also have extremely damaging impact on the water body and one the reasons behind the destruction of many water bodies in India. Unplanned tourism activities without systematic planning and regulation proved to be another major threat to urban water bodies. Disturbance of wildlife, pollution, changes in local lifestyles and loss of cultural heritage are some of the impacts of tourism on the local environment.

Technically, in urban areas, water bodies are owned by land owning agencies. However, their survival and protection depend on the role of a number of other institutions /agencies such as Ministry of Water Resources, Ministry of Environment and Forests, Agriculture Ministry, Fisheries Ministry and other local authorities, i.e., Municipal Corporations, Development Authorities, Tourism Department, Water Supply Boards, etc. At the Central Government level, Ministry of Environment and Forests plays an important role in restoration of lakes in India under its initiative called National Lake Conservation Plan (NLCP) developed in 2001 specifically for the protection and management of lakes. The objective of NLCP is development of national level policies and actions with focus on urban lakes (CSE. 2014).

Special Purpose Vehicles (SPVs) for lake management and conservation have also been set up in many parts of the country, such as, Bhoj Wetland Authority for the restoration and management of Bhoj wetlands in Madhya Pradesh, Chilka Development Authority (CDA) in Orissa for the Chilka Lake, Loktak Development Authority (LDA) for Loktak lake in Manipur, Lake Development Authority Bangalore (Karnataka) for Bangalore lakes, J&K Lakes and Waterways Development Authority for Jammu and Kashmir Lakes, Hyderabad Urban Development Authority for Hyderabad lakes in

Andhra Pradesh, East Kolkata Wetlands Management Authority for the conservation and management of a large number of water bodies in district 24 Pargana in West Bengal and Jal Vikas Samiti in Udaipur (Rajasthan). These special Purpose Vehicle are playing an important role in the protection and management of water bodies in India. As the legislation does not give the responsibility for management of water bodies to a specific agency, these Special Purpose Vehicles are empowered to enforce provisions of the legislation. A holistic understanding and acknowledgement of a lake system should be an important part of lake management plan. A clear vision regarding the level of rejuvenation of water bodies is also recommended. In order to make a productive use of limited available resources, it is important to determine an acceptable level of restoration of lakes.

Urban Sanitation

Providing environmentally safe sanitation to the people of world's second most populous nation is a challenging task. The challenges that urban sanitation sector faces mainly relate to the low priority accorded to it by the municipal governments. This task becomes more intricate in context to the country like India where introduction of new paradigms of plans, policies or projects can challenge people's tradition and belief. Around 600 million people constituting 55 per cent of country's population do not have access to safe sanitation or any kind of toilet. Open defecation is a large global problem, but it is substantially and importantly an Indian problem. About 60 per cent of the approximately 1 billion people worldwide who defecate openly live in India. Widespread open defecation has major consequences for health and human capital in India. Inadequate sanitation has a great environmental economic and health impacts in India. In order to minimize these impacts, Government of India has under taken several measures including increased investment in urban sanitation, policy initiatives, regulations, and public campaigns to improve sanitary conditions in the country. This has resulted in raising the sanitation status during the last two decades but a marked improvement is yet to be achieved. Individual health and hygiene is largely dependent on adequate availability of

drinking water and proper sanitation. There is, therefore, a direct relationship between water, sanitation and health.

Consumption of unsafe drinking water, improper disposal of human excreta, improper environmental sanitation and lack of personal and food hygiene have been major causes of many diseases in developing countries. India is no exception to this. Prevailing high infant mortality rate is also largely attributed to poor sanitation. It was in this context that the Central Rural Sanitation Programme was launched in 1986 primarily with the objective of improving the quality of life of the rural people and also to provide privacy and dignity to women. The concept of sanitation was earlier limited to disposal of human excreta by cesspools, open ditches, pit latrines, bucket system etc. Today, it connotes a comprehensive concept, which includes liquid and solid waste disposal, food hygiene, and personal, domestic as well as environmental hygiene. Proper sanitation is important not only from the general health point of view but it has a vital role to play in our individual and social life too. Sanitation is access to, and use of, excreta and waste water facilities and services that ensure privacy and dignity, ensuring a clean and healthy living environment for all. Facilities and services should include the collection, transport, treatment and disposal of human excreta, domestic wastewater and solid waste, and associated hygiene promotion (UN Habitat and Water Aid). Sanitation is one of the basic determinants of quality of life and human development index. Good sanitary practices prevent contamination of water and soil and thereby prevent diseases. The concept of sanitation was, therefore, expanded to include personal hygiene, home sanitation, safe water, garbage disposal, excreta disposal and waste water disposal. Provision of basic services such as water supply, sewerage, sanitation, solid waste disposal and street lighting has traditionally been the responsibility of the local governments. These services are being provided through state government departments, state level boards, corporations etc. Public Health Engineering Department, Public Works Department, Urban Development Department, Housing Boards, Department of Local Self Government, Water Supply and Sewerage Boards etc. are some

of the departments of the state government which performs municipal functions.

With the passing of 74th Constitutional Amendment Act, Metropolitan Planning Committee and District Planning Committee have been formed to take up developmental activities in the concerned region in place of the parastatals (Singh, 2014). The ULB's have also been empowered to take up development functions. States have responded in diverse manner with regard to the status of parastatal agencies in the post decentralized period. Many state governments like Kerala and Karnataka have recommended the abolition of the parastatals while some have recommended for a change in their functional role like in Tamil Nadu, Uttar Pradesh, Maharashtra, West Bengal and Andhra Pradesh. The parastatal agencies have also been merged with Urban Development Department. The 74th Constitutional Amendment Act has also transferred administrative and financial process and created an enabling environment for the local bodies to undertake planning and development responsibility. Sanitation brings heavy return on investment of any development intervention, however, in India; it has been remained neglected for most of the post independence history. Millions of Indians are subjected to grave ill health, increasing threats to safety, lower spending on education and nutrition, reduced productivity and lower income earning potential resulting into a deepening cycle of poverty due to lack of sanitation facilities (Dasra, 2012). Growing slum population and lack of adequate sanitation force over 50 million persons to defecate in the open every day. The poor bear the worst consequences of inadequate sanitation in the form of ailing children, uneducated girls and unproductive people, making these populations even more vulnerable and costing India 6.4 percent of its GDP (Dasra, 2012). Inadequate sanitation is much more than just an inconvenience. As urban population increases, demand for water and sewage treatment will increase. Census data demonstrate that slum population has tripled in the last three decades, intensifying the strain on insufficient urban resources. Moreover, 7 million people continue to migrate to urban areas every year with

most of them finding their way to slums within and on the fringes of cities. Slums are typically overcrowded, lack basic services and facilities, and hence are unhygienic and unsafe. In India, only half of the 50,000 slums are notified or recognized by government. Until recently, urban local bodies were not mandated to provide non-notified slums with any services. Thus, slum localities bear the worst consequences of inadequate sanitation facilities. Sanitation in urban slums is a complex and pressing issue. Existing unhygienic standards, crowded conditions and poor sanitation contribute to frequent and rapid outbreaks of diseases, lack of access to healthcare facilities compounds health problems. This also affects gender parity, education and livelihoods, making slum population more vulnerable.

Climate Change Mitigation and Adaptation

Climate change and its recent trends have a direct impact on all types of the development. Numerous agencies including National and International agencies are carrying out studies and are supporting cities to develop, adopt and implement sustainable and climate safe practices as per the National Action Plan on Climate Change, Government of India. The International Panel on Climate Change (IPCC) Working Group's most recent report (2013) paints a grim picture for India. Focus of the report is on food and water supply and the urgent need for our cities to be resilient. Considering this, the Regional Plans and Development Plans must incorporate the possible impact of climate change on development. The focus should be on water security, use of heat repelling materials in construction and minimising concrete surfaces. Aspects such as urban agriculture, vertical farming, water harvesting and preservation of all environmentally fragile ecosystems including water, landscapes etcetera should be incorporated. Specific actions should be included to address, among the other mentioned components. It may be desirable to develop appropriate policies and bring about effective legal and administrative control systems to deal with the problem. City-level Action Plans, for e.g. Kanpur and Meerut have already initiated the effort, which is supported by WWF. Green building is also one of the approaches for effectively reducing impact

of climate change. It is combination of all the best practise principle. A brief on Green Building is gin in subsection below.

Green Building

Green building concept recognises sustainable development by effective performance in the following key areas:

- **Sustainable Site Development:** the sustainable site development shall include the following:
 - Efficient land use
 - Habitat preservation and restoration
 - Efficient transportation management
 - Efficient use of locally available materials and resources
- **Water Efficiency:** It shall encourage use of water in a self-sustainable manner through reducing, recycling and reusing strategies. The methods of rainwater harvesting can be integrated to reduce load of water requirement on the urban water supply system.
- **Energy Efficiency:** It shall reduce energy consumption of infrastructural equipment through energy efficient street lighting, motor pumps etc. On site power generation using various renewable energy technologies and other clean fuels can also be integrated in the planning system.
- **Waste Management:** It shall encourage effective waste management strategies by facilitating the segregating of waste at source and promoting reuse of products and materials.
- **Indoor Environment Quality:** For development of green buildings, the norms as suggested by Ministry of Environment and Forest and various bodies such as LEED, GRIHA or IGBC may be applicable depending upon the requirements.

City Bio Diversity Index

City Biodiversity Index (CBI) is a dynamic process, being prepared for depicting the urban biodiversity status. This helps in evaluation, planning, improving and reviewing the city conditions in

biodiversity perspective. The UNEP and UN Habitat states that cities occupy 2 percent of the Earth's surface, their inhabitants use 75 percent of the planet's natural resources. Recognising the importance of biodiversity and healthy ecosystems for their survival, cities should undertake initiatives to utilize and conserve their surroundings efficiently. These actions can reach far beyond the boundaries of the city, affecting biodiversity on a global scale. At the City level, high-resolution satellite images may be used for identifying Biodiversity areas. As adopted by Greater Hyderabad City for formulating Greater Hyderabad Biodiversity Index, the city biodiversity index system has 92 score system with 23 indicators. International convention (Convention on Biological Diversity) and national policies/plans (National Biodiversity Action Plan (NBAP), 2008) and documents have identified Invasive Alien Species as threat to biodiversity⁸³. The 12th Five Year Plan (2012-2017) has emphasised the need for a national invasive species monitoring system to track the introduction and spread of invasive species and advised that such a system should be linked to the State Forest Departments, and field staff should be trained to collect information on invasive species. Invasive species identification should not be limited to invasion in forests—it should also include invasion in aquatic and marine ecosystems, grasslands, wetlands and so on⁸⁴. It is suggested that while implementing a plan or project and developing green areas or green buffers, local species be used and the State Forest Departments to be made stakeholders in such projects.

Environmentally Sensitive Zones: Environmental sensitive zones may be defined as areas with identified environmental resource with 'incomparable values' which require special attention for their conservation.

- Monitoring & enforcement of environmental compliance.
- Use of economic principles in environmental decision making so that costs are associated with the degradation and depletion of natural resources.
- Enhancing and conserving environmental resources through production and consumption practices with focus on

regulatory and institutional reforms. Land degradation, forests and wildlife, biodiversity, freshwater resources; ground water and wetlands are the thrust resources of concern.

- Pollution abatement: ecosystems have some natural capacities to assimilate pollution; however these vary considerably with the nature of the pollutant and the ecosystem.

Environmental Assessment Notification, 2006

To ensure that the economic growth and development in our country is in conformity with regulations for environmental conservation, the Ministry of Environment & Forests has notified the Environmental Impact Assessment Notification, 2006. The Notification 2006 has notified 39 developmental sectors, which require prior Environmental Clearance. The Ministry of Environment and Forests has prepared EIA guidelines on each sector as identified by EIA notification 2006, which elaborates the procedure and mandatory requirements of EIA with respect to the sector. For e.g. Manual on norms and standards for environment clearance of large construction projects has been issued by MoEF to assist developers to measure and quantify environmental impacts of proposed construction, and derive mitigation options to minimise impacts. The manual also enables evaluation of construction projects by the expert appraisal committee. The proponent may use mitigation options, other than the ones described in the manual to mitigate environmental impacts of respective projects.

The projects for which detailed Environment Impact Assessment may be required include the following:

- Those, which can significantly alter the landscape, land use pattern and lead to concentration of working and service pollution.
- Those which need upstream development activity like assured mineral and forest products supply or downstream population.
- Those involving manufacture, handling and use of hazardous materials.

- Those which are sited near ecologically sensitive area, urban centres, hill resorts, places of scientific and religions importance.
- Industrial estates with constituent units of various types, which could cumulatively cause significant environmental damage.
- The EIA should address to some of the basic factors listed below:
 - Meteorology and Air quality
 - Hydrology and water Quality
 - Site and its surroundings
 - Occupational safety and health
 - Details of the treatment and disposal of effluent
 - Transportation of raw materials and details of material handling
 - Impact on sensitive targets
 - Control equipment and measures proposed to be adopted
 - Land requirements
 - Rehabilitation of displaced population
 - Impact during construction

Strategic Plan for New and Renewable Energy Sector

India's substantial and sustained economic growth is placing enormous demand on its energy resources. The demand and supply imbalance in energy sources is pervasive requiring serious efforts by Government of India to augment energy supplies. India imports about 80 percent of its oil. There is a threat of its increasing further, creating serious problems for India's future energy security.

Guidelines for Rain Water Harvesting

Rainwater harvesting is the technique of collection and storage of rainwater at surface or in sub-surface aquifers, before it is lost as surface runoff. The augmented resource can be harvested in the time of need. Artificial recharge to ground water is a process by which the

ground water reservoir is augmented at rate exceeding that under natural conditions of replenishment. The functioning of ground water recharge units, various methods and techniques have already been elaborated in Infrastructure Planning section. Ministry of Water Resources, Central Ground Water Board (CGWB) has issued the 'Manual on Artificial Recharge of Ground Water⁸⁷, which can be referred for development of such projects.

Environmental Guidelines for Planning Eco-Fragile Zones

Eco-sensitive zone

Due to rapid urbanisation and its impact on protected zone, there is a need to conserve protected areas. The Ministry of Forests and Environment, Government of India has developed guidelines for declaration of eco sensitive zones around protected areas, national parks and wildlife sanctuaries. These guidelines provide the framework to states/UTs to develop specific buffer zones around National Parks, Wildlife Sanctuaries, Sanctuaries, important migratory corridors, etc. with a view of minimizing and preferably eliminating any negative impact on protected areas and sanctuaries. The recommended procedure to be adopted by states is mentioned below:

- Prepare an inventory of the different land use patterns and the different types of activities, types and number of industries operating around each of the Protected Area (National Parks/Sanctuaries) as well as important Corridors be made with the help of range officers.
- A small committee comprising the concerned Wildlife Warden, Warden, an Ecologist and an official of the Revenue Department of the concerned area, could be formed whose function is to provide recommendation on requirement and extent of eco sensitive zone. Further, the committee can also suggest the methods of management of zone and thematic activities, which can be included in the Development Plan/Master Plan of the region.

Urban Risks and Climate Resilience

Urbanization is a global phenomenon experienced by developed as well as developing countries. There is migration from villages to towns and cities with results in growth of metropolitan cities since they provide multiple avenues, services and amenities viz. education, health care, employment, business and entertainment options etc. People also migrate for economic opportunities and urban life styles. Though urbanization brings about development in social, economic and cultural spheres of life, it sometimes disturbs the ecological systems. Rapid and unplanned growth of urban agglomerations generates a series of negative environmental effects. Today urban India presents a very pathetic scene. Cities have become a site of rotting garbage, degrading drainage system and shocking night soil removal system. India's life line is in danger. Many Indian rivers are heading towards an environmental disaster due to discharging of untreated sewage into water bodies. Besides, poor have practically no access to sanitary toilets and in many towns and cities, the majority defecate in the open. The untreated sewage being dumped into the river and water bodies leads to health hazards. Growing urbanization is posing serious environmental concerns in India in terms of changing land use pattern, increasing carbon emissions, solid waste generation and disposal, air and water pollution and poor sanitation amenities. A large segment of urban population in India resides in slums, squatters and informal settlement. These settlements are often located in low laying areas prone to direct and indirect risks due to environmental degradation including changes in the climate and lack of basic urban services. An urban environment is complex primarily because of rapidly changing variables such as socio- economic and demographic indicators, land-use patterns, resource demand and utilization patterns, lifestyle changes etc. In the light of climate change, a new layer of uncertainty is added in terms of changes in precipitation, temperature and occurrence of extreme events. Furthermore, there are scale mismatches; in terms of the timescales over which policymakers and urban planners operate, and scales over which projected impacts of environmental decisions,

degradation, climate variability and change will manifest. Also policies and developmental initiatives in cities should enable urban systems to adjust to changes as and when they happen and accordingly respond in a way that maintains their original structure and function. It is to be noted that out of 35 cities in India having population over a million, 18 are in coastal states. Major challenge for cities in the face of rapid population growth is to maintain sustainability within the social, economic and environmental dimensions. Urban systems are at risk to different kind of hazards. Several factors contribute to the urban risk profile.

Increasing urbanization, expansion of habitat into unsuitable vulnerable areas, higher population density, higher housing density, vulnerable housing and buildings construction, non engineered unsafe construction, and aging buildings and other infrastructure are some of the factors that have increased the vulnerability of hazards and disasters in urban areas. Growing urbanization is posing serious environmental concerns in India in terms of changing land use pattern, increasing carbon emissions, solid waste generation and its disposal, air and water pollution and poor sanitation amenities. Major challenge for cities in the face of rapid population growth is to maintain sustainability within the social, economic and environmental dimensions. The accelerated and uncontrolled urban growth has contributed to the ecological transformation of the cities and their immediate surroundings resulting in flash floods and water scarcity. Furthermore other factors depending on the local circumstances contribute to the urban vulnerability, hazards and risks (Singh, et.al. 2014). Cities may be viewed as hubs of the intensive resource demand, environmental degradation and greenhouse gas emissions. However, cities may play a critical role in promoting low carbon development through use of renewable energy, energy efficiency, green buildings and mitigating emissions from urban transport. The immediate problems of states' cities relate to inadequate institutional arrangements for solid waste management, drainage, sewage treatment and disposal and sanitation services. Thus, it is imperative to improve the municipal

services, particularly sanitation services and urban local governments adopt the integrated urban planning for climate resilience and addressing the environmental problems (Singh, 2014). Policymakers and developmental planners have increasingly become interested in understanding the concepts of resilience, vulnerability, and adaptation to enable proactive and better informed responses to urban disasters. (Dayton and Johnson, 2004). Urban Resilience" is the capacity of an urban center to absorb the shock of a sudden or unforeseen disaster provoked by an event without necessitating massive extra territorial aids and resources to maintain its urban performance quality. These shocks could be of manmade origin or of natural causes such as tsunami, flood, cyclone, earthquake, landslides, etc. The quality of urban resilience or in other words its absorbing capacity depends upon the management quality of its governance system, its resources availability, its infrastructural facilities and manoeuvrability, the participative dynamics of its citizens and most importantly its visions and preparedness mechanism at all levels to counteract the disasters and emergencies. In fact, an urban center is a complex entity of a total system composed of innumerable sub-systems representing different urban elements and parameters. A good number of scientific means and knowhow's such as GIS, forecasting, simulation of scenarios and magnitude of disasters' effects, etc. are available to understand, to envision and to modelise these risks and minimize their impacts on settlements. In order to encounter the disasters and improve the resilient capacity of the settlement centers, three basic strategies are needed to be developed: 1) Anticipation and envisioning of the "causes & effects chain" that constitute the total urban system of the settlement centre; 2) Improve the early warning and preparedness capacity, infrastructural mobility and governance system; and 3) Incorporating necessary measures in the development program to rectify the planning errors (Baral, 2014).

Growing urbanization would result in an increase in dependency on urban services, economic opportunities, resources, and infrastructure. In India, while cities such as Mumbai, Bangalore,

Ahmadabad, and Chennai have substantial developmental investments, medium and small towns are grappling to deal with population growth and competition for resources due to inadequate infrastructure and financial resources. (Mc Grahahan et al., 2007). A major challenge for cities facing rapid population growth is to maintain environmental sustainability. The nature of inter-linkages of services within an urban environment and consequently the highly connected nature of risks, policies relating to urban resilience and sustainability essentially need to address multiple sectors and dimensions (Nijkamp and Finco, 2000). This includes land use planning, energy management, ecosystem services, housing and transport, water supply and sanitation, health services, and waste management, inter alia.

Aggregating the findings from the extensive review of literature on climate adaptation, resilience efforts, urban risks, and development, we find (Teri, 2011):

- Resilience is multi-sectoral: Policies need to be integrated within on-going decision-making and planning processes in critical sectors;
- Resilience is an incremental process: Planning should emphasize mechanisms for on-going learning, evaluation, and adjustment of strategies based on observed impacts of climate changes
- Resilience includes not only “hard infrastructural investments” but also “soft” actions to strengthen the adaptive capacity of populations and sectors
- Resilience should be framed in line with local and regional developmental priorities, and focus on the most vulnerable sectors
- Resilience planning should involve stakeholder groups in a collaborative way. It is a multi-sectoral approach, operating at various levels of institutional set-up
- Mainstreaming resilience planning needs to be guided by policies and legislative framework or by the rules of law to

help integration with development activities at each level.

- Resilience planning should be based on detailed region-specific vulnerability analysis to capture vulnerability in its varied dimensions (for example biophysical, social, and technological, etc.)

Project planning for infrastructure needs early risk audit in its formative stages of estimating investments. Hazard and vulnerability assessment need to be more focused on risk of disaster and climate change in these estimates. In local level project planning the focus on process that captures risk concerns, risk reduction to build resilience in infrastructure is lacking (Bhatt, 2014). Resilience is proving to be a helpful way of furthering our understanding of how to improve efforts in disaster management, both in reducing the scale of impact beforehand and in providing a better response afterwards (Sanderson, 2014). There is an urgent need to look for alternatives to produce greener and cleaner building materials, which consume fewer resources, produce lesser pollution and are environment friendly besides focusing on disaster resistance capability of construction materials. In India, town planning is an important entry point for mainstreaming urban resilience. Review of several planning documents is required in order to identify options and strategies towards urban resilience. These include:

- Town and country planning act and zoning regulations
- Development control rules and building bye-laws
- District planning manual of the Planning Commission
- National building codes
- Urban Development Plan Formulation and Implementation (UDPFI) guidelines
- City master plans

At the city level, budgetary challenges and lack of fiscal autonomy still exist as bulk of the finances still rest with the Central and state governments and not with city governments. The method of mainstreaming risk reduction and resilience planning is through climate risk screening. It is an approach for reducing climatic risks to

developmental objectives and integrating adaptation options within developmental programmes at the national and sub-national levels (Tanner et al., 2007). The steps involved in a climate risk screening include:

- Assessment of current and future impacts of climate change on developmental objectives of a project/ policy;
- Assess the ways in which the developmental project/policy already contributes towards vulnerability reduction and risk reduction Identify potential entry points to integrate climate risk management strategies into the developmental project/policy ambit;
- Prioritization of the selected strategies based on multiple established criteria
- Conducting cost-benefit analyses of the selected strategies.

Strong urban planning can promote resilience by ensuring optimal use of space, energy and natural resources. Flexible and adaptable climate change planning processes are crucial. Engagement, education and awareness raising campaigns are a useful element within planning for development because each activity can contribute to climate change – wasting electricity, driving cars, not recycling or reusing. Decentralized and improved urban governance is important for practical implementation of resilience and sustainability strategies. Public-private partnerships are an important and effective means of leveraging stakeholder expertise and forming partnerships for greater community benefits. Municipal bodies often do not have appropriate data to address planning needs and development. Advanced mapping, visual and spatial technologies can promote effective resource allocation and resilience strategies in cities. In order to ensure disaster resilient development in cities, there is a need for *better inter—agency coordination* across ministries and departments such as urban development , housing, water resources, environment, transport, home/internal affairs, power, communications, municipal governance amongst others at national, state and local levels along with many non- governmental

organizations and civil society.

Conclusion

Cities may be viewed as hubs of the intensive resource demand, environmental degradation and greenhouse gas emissions. However, cities may play a critical role in promoting low carbon development through use of renewable energy, energy efficiency, green buildings and mitigating emissions from urban transport. Mainstreaming climate resilience into urban development is essential because climate risks may only be one of the several factors defining poverty level, well-being, economic growth and development in an urban environment. Strategic urban planning directly supports urban resilience as a tool for sustainable development. Urban local governments must actively coordinate and mainstream mitigation, adaptation and resilience into urban planning process to prepare cities to deal with climatic risks and impacts. The Supreme Court of India has played a catalytic role for greening cities in the country. The court identified critically polluted cities and suggested an action plan to reduce the level of pollution in these cities. The immediate problems of India's cities relate to inadequate institutional arrangements for solid waste management, drainage, sewage treatment and disposal and sanitation services. Thus, it is imperative to improve the municipal services, particularly sanitation services and urban local governments adopt the integrated urban planning for climate resilience and addressing the environmental problems.

Suggestions

- There is a need to prepare a comprehensive, flexible and user friendly framework for planning and policy analysis under climate variability and uncertainty scenario.
- It is imperative to establish and strengthen ground water monitoring network through construction of observation wells, sanctuary wells for coastal aquifer management and water quality monitoring.
- It is high time to review the National Water Policy with a view to ensure integrated water resource management in the context

of climate change challenges in water sector.

- It is imperative to develop inter-ministerial and inter-departmental coordination for vulnerability analysis, mitigation and addressing of climate change challenges both at the state and centre level.
- Integrated Energy Policy, introduced in 2006, should be effectively enforced to promote energy efficiency in all sectors with emphasis on mass transport, renewable energy resources development and clean energy technologies.
- Promotion of cleaner technologies, strengthening of emission standards, introducing economic incentives and strengthening of monitoring and reporting system is imperative in order to control the industrial pollution.
- State specific water policies need to be prepared. Ground water legislation needs to be promulgated in all states to promote sustainable water uses and water development. Emphasis should be given to developing surface water use and taking measures for rainwater harvesting to increase water resource availability.
- It must be made mandatory to install rainwater harvesting systems in both public and private buildings, including industrial and commercial establishments. Buildings having a courtyard should allocate a prescribed proportional area for rainwater harvesting and recharging. The ULBs should make ensure such provisions before approving building plans.
- Environmental taxes can potentially be levied in a wide range of settings for effluent/emission charges for industrial pollution, and user fees for municipal solid waste, to taxes on the use of agricultural inputs such as fertilizers and pesticides and carbon taxes. The small scale industries may also be imposed taxes in accordance with polluter pays principle.
- It is imperative to develop and evaluate adaptation strategies in all the major hydro geological environments to mitigate negative impacts of climate change and variability.

- Integrating climate change adaptation considerations into policy process and decision making across a range of sectors and skills is critical in managing the impacts of climate change. There is need to develop, disseminate and implement the knowledge, tools and technologies required to effectively engaging in an integrated approach.
- Technological intervention is required to enhance effective treatment of waste water. Strengthening of waste water and sewerage/effluent treatment plants should be undertaken on priority basis.
- There should be effective enforcement of user charges on sanitation services particularly door to door collection of garbage and refuse, cleaning and maintenance of public toilets, sweeping of roads and streets, cleaning and maintenance of drainage, etc.
- There should be more incentives for the urban local bodies to mobilize the communities and making the cities open defecation free as well as dust bin free. The community, particularly urban poor should be provided adequate subsidy and loan facility for construction of toilets.
- The capacity of existing sewerage treatment plant should be fully utilized through addressing the prevailing problems, constraints and challenges in effective functioning of the sewerage treatment plants. There should be effective ban on disposal of human excreta into open drains and water bodies.
- There should be proper policy of septage management as a large urban population is depending on conventional septic tanks technology for disposal of human excreta. The policy should also address the issues of appropriate technologies, regular cleaning of septic tanks, disposal of solid waste from septic tanks and provision of training and capacity building of sanitary workers engaged in cleaning of septic tanks.
- Urban planning urgently begs a fundamental conceptual change, with a need for locating urban disaster management strategies in a holistic frame work. In order to reduce the

pressure on land in hazard prone areas, the emphasis should be given on construction of buildings and infrastructure in the outskirts of the core area of the city. The satellite towns should be developed with greater emphasis on financing and creation of infrastructure in order to reduce the population stress on mega cities.

References

Baral, Hari (2014), The Urban Resilience Approach, Towards Urban Resilience, South Asia Disasters Net, Issue No. 114, July.

Bhatt, Mihir, R. (2014), How Resilient is India's Infrastructure, Towards Urban Resilience, South Asia Disasters Net, Issue No. 114, July.

CSE (2011), Policy Paper On Septage Management In India, Centre for Science and Environment, New Delhi.

CSE (2012), Excreta Matters-7th State of India's Environment Report, Vol. 1, Centre for Science and Environment, New Delhi.

CSE (2012), Churning Still Water, Centre for Science and Environment, New Delhi.

CSE (2014), Protection and Management of Urban Lakes in India, Centre for Science and Environment, New Delhi.

CSE (2014) State of India's Environment, 2014, CSE, New Delhi

Dasra (2012), Squatting Rights: Access To Toilets In Urban India, Dasra, Mumbai.

Dayton-Johnson J. (2004), Natural Disasters and Adaptive Capacity Working paper no. 237, www.oecd.org

Government of India (2012) 12th Five Year Plan, Planning Commission , Government of India, New Delhi

IPCC (2007), Climate Change 2007: Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press, Cambridge.

Mc Granahan et al, (2007), The Rising Tide Assessing The Risks Of Climate Change And Human Settlements In Low Elevation Coastal Zones, Environment and Urbanization, 19;39

Nijkamp P and Finco A. (2000), Evaluation of Complex Resilience Strategies for Sustainable Cities. Edited by P Gejo, Padova: CESET

Sanderson, David (2014), Towards Urban Resilience, Towards Urban Resilience, South Asia Disasters Net, Issue No. 114, July.

Singh R. & Bhatnagar M. (2012), Urban Lakes and Wetlands: Opportunities And Challenges In Indian Cities – Case Study Of Delhi, 12th Edition Of The World Wide Workshop For Young Environmental Scientists.

Singh, A.K. & Sonika Khanna (2005), “Solid Waste Management in India”, Indian Journal of Development Research & Social Action, Vol. 1 (1), Jan-June.

Singh, A.K. (2014), Background Paper on Problems and Prospects in Ensuring Universal Access of Sanitation to Urban Poor Families for National Seminar, Organised by Basti Area Development Council, District Balasore, Odisha on June, 27-28.

Singh, A.K. (2014), Climate Change and Its Impact on Urban Environment in India, Journal of Asian Business Management, Vol. 6 No. 1, Jan-June.

Singh, A.K. (2014), Urban Planning for Sustainable Development, Training Module, RCUES, Lucknow University, Lucknow

Singh, A.K. (2014), Urban Risks in Uttar Pradesh, Towards Urban Resilience, South Asia Disasters Net, Issue No. 114, July.

Singh, V.S. and Pandey, D.N. (2012), Sustainable Housing: Balancing Environment with Urban Growth in India, Rajasthan State Pollution Control Board, Jaipur

Tanner T M, et.al. (2007), ORCHID: Climate Risk Screening in DFID India. Synthesis Report. www.ids.ac.uk

TERI (2011), Mainstreaming Urban Resilience Planning in Indian Cities: A Policy Perspective, TERI-Rockefeller Foundation, New Delhi.

Rural Development in India through Entrepreneurship: An Overview of the Problems and Challenges

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Abstract

In the era of globalization, entrepreneurship development in the rural context is a challenge. According to 2011 Census 68.84 percent people are living in rural areas of India. People in rural areas suffer with unemployment, poor infrastructure facilities which may be solved with the development of the rural entrepreneurs. "Rural Entrepreneurship can be defined as entrepreneurship emerging at village level which can take place in a variety of fields of endeavor such as business, industry, agriculture and acts as a potent factor for economic development". But, these rural entrepreneurs are suffering with various problems like fear of risk, lack of finance, illiteracy, and competition from the urban entrepreneurs. Rural entrepreneurs increase the standard of living and purchasing power of the people by offering employment opportunity to the people in villages. This paper is an attempt to understand the problems and challenges for rural entrepreneurship in the context of rural development in India and possible suggestions to overcome the problems.

Key Words: *Rural entrepreneurs, Issues and Challenges, Rural Development*

Introduction

The Make in India Strategy adopted by the Prime Minister Shri Narendra Modi aims to facilitate investment, foster innovation, entrepreneurship, enhance skill development in the country. Mahatma Gandhi has rightly pointed out that "India lives in villages". Villages comprise the core of Indian society and represent

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the real India. Rural entrepreneurs are those who carry out entrepreneurial activities by establishing industrial and business units in the rural sector of the economy. In other words, establishing industrial and business units in the rural areas refers to rural entrepreneurship. Entrepreneurship can play an important role in rural development. Agriculture continues to be the back bone of rural society. 70 per cent of holdings are held by small and marginal farmers resulting in overcrowding on the agricultural land and diminishing farm produce. This results in migration of farm worker in large numbers to the urban areas. Land being limited and unable to absorb the labour force in agriculture, there is a need to develop rural industries to solve rural unemployment and rural migration to cities. Growth and development of rural economy is an essential precondition to the development of the country as a whole. The gap between rural urban disparities should be lessened. The standard of living of the rural people should be increased. Entrepreneurship in rural sector provides an answer to the above problems.

Indian rural sector is no longer primitive and isolated. Therefore, if entrepreneurs encouraged in rural and tribal areas looms large to solve the problems of poverty, unemployment, and economic disparity, poor utilization of rural capacity, low level of standard of living and backwardness of Indian economy. Rural industrialization is viewed as an effective means of accelerating the process of rural development. Government of India has been continuously assigning increasing importance and support for the promotion and growth of rural entrepreneurship. According to latest definition of Government of India, "Any industry located in rural area, village or town with a population of 20,000 and below and an investment of Rs. 3 crores in plant and machinery is classified as a village industry." Rural entrepreneurship is a new field in the area of entrepreneurship research. It has become one of the supportive factors for rural economic development and agribusiness. In this backdrop, the present paper addresses the problems and challenges for development of entrepreneurship in the context of rural India.

Objectives of the Study

- To study scope of rural entrepreneurship and rural Industries.
- To know basic principles of entrepreneur applied to the rural development.
- To know characteristics of rural entrepreneurship.
- To know the types rural entrepreneurs.
- To know the types of Rural Industries.
- To know investment – wise classification of rural industries (MSME).
- To know Government Schemes for rural entrepreneurship in India.
- To study the role of rural entrepreneurs in economic development.
- To study effects of Globalization on Rural Entrepreneurship
- To study the problems and challenges faced by the rural entrepreneurs.
- To study Policy Implications for Development of Rural Entrepreneurship.
- To provide suggestions for development of rural entrepreneurship.

Methodology

The present study is based on secondary data. The data is collected from books, journals and websites.

Scope of Rural Entrepreneurship and Rural Industries

Micro and small scale enterprises have existed in rural India since ages in the form of traditional skills. Recently, rural entrepreneurship has emerged as a dynamic concept. There is lot of scope for rural entrepreneurship in SMEs (Small and Medium Enterprises) sector economy which plays a vital role in providing employment and income for the poor and unemployed in rural areas. As the population grows there will be pressure on land and the growth in the agricultural production cannot absorb the ever increasing rural labor force in

agricultural employment. This leaves the rural non-farm sector in the form of rural SMEs to absorb those released from agriculture but not absorbed in the urban industries. Contributing more than 52 percent of the GDP and making available more than 75 percent of all labor force in India the rural sector is best poised for a rapid expansion in the small and medium industry arena. The scope of rural industries is considered basically a question of properly utilizing the unexploited natural and human resources and tapping vast material existing in the countryside. The features of rural industrialization are low investment of capital, labour intensity and use of simple technology by employing local human and material resources. Thus, a judicious mix of local manpower with the local resource is necessary to bring about a viable development in these areas.

Basic principles of entrepreneur applied to the rural development are

- Optimum utilization of local resources in an entrepreneurial venture by rural population - Better distributions of the farm produce results in the rural prosperity.
- Entrepreneurial occupation rural population to reduce discrimination and providing alternative occupations as against the rural migration.
- To activate such system to provide manpower, money, material, machinery, management and market to the rural population.

Characteristics of Rural Entrepreneurship

The characteristics of rural entrepreneur are: Risk taking ability, Self-confidence, Decision making ability, Knowledge of growing technology, Economic motivation, Market orientation, firm condition of experience. Ability of co-ordination related activities, Achievement, Motivation, etc. indicators are behaviour of entrepreneurial activities.

Types of Rural Entrepreneurship

- 1) Individual Entrepreneurship
- 2) Group Entrepreneurship

3) Cluster Formation Entrepreneurship

4) Cooperative Entrepreneurship

Types of Rural Industries: All the village industries come under the following broad categories:

1) Agro Based Industries: Sugar industries, Jaggery, Oil processing from oil seeds, Pickles, Fruit juice, Spices, Dairy products etc.

2) Forest Based Industries: Wood products, Bamboo products, Honey, Coir industry, Making eating plates from leaves.

3) Mineral based industry: Stone crushing, Cement industries, Red oxide making, Wall coating powders etc.

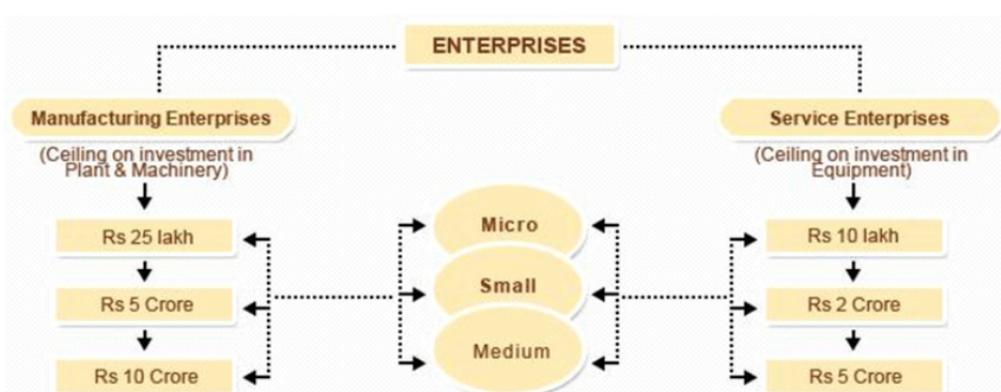
4) Textile Industry: Spinning, Weaving, Colouring and Bleaching.

5) Engineering and Services: Tractors and Pump set repairs etc. Small and medium sized industries to produce agricultural machinery, equipment for usage in rural areas etc.

6) Handicrafts: These include making of wooden or bamboo handicrafts that are local to that area, traditional decorative products, toys and all other forms of handicrafts typical to the region.

7) Services: There are a wide range of services including mobile repair, agriculture machinery servicing, etc which are being undertaken under this category.

Investment – wise classification of Rural Industries (MSME): Almost all rural industries fall under the preview of Micro, Small, and Medium Enterprises. The classification of MSME is as follows:



Source: Micro, Small and Medium Enterprises Development Act, 2006

Government Schemes for Rural Entrepreneurship in India:

- Entrepreneurship Development Institution Scheme
- Rajiv Gandhi Udyami Mitra Yojana (RGUMY)
- Performance and Credit Rating Scheme (Implemented through NSIC)
- Product Development, Design Intervention and Packaging (PRODIP)
- Khadi Karigar Janashree Bima Yojana for Khadi Artisans
- Marketing Assistance Scheme
- Provision of Urban Amenities to Rural Areas (PURA)

Role of Rural Entrepreneurs in Economic Development:

According to Joseph Schumpeter, the rate of economic progress of a nation depends upon its rate of innovation which in turn depends on rate of increase in the entrepreneurial talent in the population. According to Meir and Baldwin, development does not occur spontaneously as a natural consequence when economic conditions in some sense are right. A catalyst is needed which results in entrepreneurial activity to a considerable extent. The diversity of activities that characterizes rich countries can be attributed to the supply of entrepreneurs. They channelize the resources from less productive to more productive to create wealth. Through efficient and effective utilization of national resources, they act as catalysts for economic development and agents of social transformation and change. They play a vital role for the economic development of a country in the following ways.

Decentralized Industrial Development, Better Distribution of Wealth and Investment: Rural entrepreneurship play imperative role in the economic expansion of the country and results in decentralized industrial development, better distribution of wealth and investment.

Reduction of Poverty and Unemployment: Rural entrepreneurship

is labour intensive and creates large scale employment opportunities for the rural people. Rural entrepreneurship provides a solution to the growing problem of large-scale unemployment and underemployment of rural India. Through entrepreneurship development programme, unemployed people can opt for self-employment. In this respect, several programmes like National Rural Employment Programme (NREP), Integrated Rural Development Programme (IRDP), etc. are in operation in India to help the potential entrepreneurs.

Check on migration of rural population: Rural population moves towards urban for various reasons like income generation, searching good job, utilize various facilities etc. Rural entrepreneurship will bring in or develop infrastructural facilities like roads, power, bridges etc. It reduces the gaps and disparities in income between rural and urban areas. Rural entrepreneurship can avoid the migration of people from rural to urban areas in search of jobs.

Formation of Capital: Entrepreneurs by placing profitable business proposition attract investment to ensure private participation in the industrialization process. The otherwise idle savings are channelized for investment in business ventures which in turn provides return. Again the savings are invested giving a multiplier effect to the process of capital formation.

Balanced regional development: Rural entrepreneurship controls the concentration of industry in urban areas by setting small scale units in remote areas, successful entrepreneurship development programmes can help in achieving balanced regional development.

Promotion of artistic activities: Rural industries also help protect and promote the art and handicrafts, i.e. the age-old rich heritage of the country.

Check on social evils: The growth of rural entrepreneurship reduces the social evils like poverty, social tensions, atmospheric pollution, the growth of slums and ignorance of inhabitants etc.

Awaken the rural youth: Rural entrepreneurship encourages young and promising entrepreneurs to develop and carry out entrepreneurial activities in the rural sector.

Improves standard of living: Rural entrepreneurship will also increase the literacy rate of rural people. Their education and self-employment will prosper the community, thus improving their standard of living.

Proper utilization of local resources: Rural industries help in the maximum utilization of local resources like raw materials and labour for productive purposes and thus increase productivity. Efficient and effective use of limited resources by the entrepreneurs leads to overall economic development of an area.

Improvement in per capita income: Rural entrepreneurship generates more output, employment and wealth by exploiting new opportunities, thereby helping to improve the per capita income of rural people.

General Employment: This is the real charm of being an entrepreneur. They are not the job seekers but job creators and job providers. With the globalization process the government jobs are shrinking leaving many unemployed. In the circumstances, the entrepreneurs and their enterprises are the only hope and source of direct and indirect employment generation. Employment is generated directly by the requirement of the large enterprises and indirectly by ancilliariation and consequential development activities.

National Self-reliance: Entrepreneurs are the corner stores of national self-reliance. They help to manufacture indigenous substitutes to imported products which reduce the dependence on foreign countries. There is also a possibility of exporting goods and services to earn foreign exchange for the country. Hence, the import substitution and export promotion ensure economic independence and the country becomes self-reliance.

Planned Production: Entrepreneurs are considered as economic agents since they unite all means of production. All the factors of production i.e., land, labour, Capital and enterprise are brought together to get the desired production. This will help to make use all the factors of production with proper judgment, perseverance and knowledge of the world of business. The least combination of factors

is possible avoiding unnecessary wastages of resources.

Promote prosperity: Improvements in local productivity can promote prosperity.

Earnings of foreign exchange: Rural entrepreneurship plays significant role in increasing the foreign exchange earnings of the country through export of their produce.

Effects of Globalization on Rural Entrepreneurship: It is very difficult to establish causal linkages, or to quantify the specific effects of globalization on rural entrepreneurship. However, it is possible to broadly identify some advantages and disadvantages of globalization on rural entrepreneurship in India.

Advantages

1) **Economies of Scale and Scope:** Due to the access to global markets, abilities to specialize, and to take advantages of economies of scale and scope.

2) **Exposure to the global competition** can result in high levels of productivity and efficiency.

3) **Improved access** to foreign technology and managerial expertise.

4) **Accelerates economic growth:** There are different opinions concerning the connection between trade openness and rural entrepreneurship growth. Edwards (1998) concludes that greater openness accelerates economic growth. In contrast, Helleiner (1986) suggested that a certain level of national development is necessary before the objective of export-led growth can be realized.

5) **Effect of globalization on rural enterprises** depends upon the changes in GDP and changes in income distribution. The evidence suggests that the rural entrepreneur overall are substantially included as beneficiaries from economic growth. However, the extent of inclusion varies internationally.

6) **Transfer of technology** is one of the prominent features of globalization and one of the major reasons for predicting improved growth. Many formerly small rural entrepreneurs saw major improvements in their businesses, but the improvements were in a very limited area and to a very limited number of entrepreneurs.

Disadvantages

1) **Endangered the existence of rural entrepreneurs and survival of rural industries:** Due to liberalization, privatization and globalization cheaper and better quality goods were available than the local goods. They started challenging the rural industries. Further, with the introduction of Special Economic Zones (SEZs), the MNCs were facilitated with areas with liberal economic and trade laws, concessions to enhance foreign investments and promote exports. This endangered the existence of rural entrepreneurs and survival of rural industries.

2) **Lack of access to the technologies and market information.**

3) **They rarely has access to credit and the other financial services necessary to compete in the modern world.**

4) **They face high transportation and input costs that further reduce their ability to compete.**

5) **Many rural entrepreneurs, especially women rural entrepreneurs are hampered from benefiting from the changes arising from globalization.** They have less access than men to education and training, less time to devote to productive activities, less command over important resources such as land, credit and capital.

6) **Insecurity:** Globalization is linked to increased specialization, but this, for all its advantages, increases risks for rural entrepreneurs by pushing them to 'play all their cards'. These factors are further compounded by the transformational and insecurity effect due to volatile environment like natural disasters, inflation, market conditions and other shocks.

7) **Global slowdown:** Greater financial interdependence amongst national economies, resulting from globalization, has the effect of transferring or spreading shocks from one nation to another. This can be seen from the financial crisis in 2008, which affected the world, leading to a global slowdown. Many of these shocks coming from the rest of the world hit the urban sector hardest. Still, there are a number of channels through which the effect is transferred to the rural enterprises.

8) **Discrimination:** Government of India has discriminated against agriculture and those enterprises that depend upon it. This 'discrimination' has affected rural entrepreneurs who depended on agriculture and allied sectors.

9) **Outsource:** MNCs outsource the manufacturing to the Indians. Thus, it leads to more labour absorption from the rural industries and affecting their growth.

Problems faced by the Rural Entrepreneurs

Entrepreneurs are playing very important role in the development of an economy. They face various problems in day to day work. Some of the major problems faced by rural entrepreneurs are classified as under

I Financial Problems

II Marketing Problems

III Management Problems

IV Human Resource Problems

V Other Problems

I Financial Problems

a) **Lack of funds:** Finance is the back bone for any business. Most of the rural entrepreneurs fail to get external funds due to absence of tangible security and credit in the market. The procedure to avail the loan facility is too time-consuming that its delay often disappoints the rural entrepreneurs. They are mainly depending on parents and relatives, popularized person in the particular area for finance. They are not aware of the entrepreneurial supporting financial institution like SIDCO (Small Industrial Development Corporation), SIDBI (Small Scale Industrial Development Bank of India), DIC (District Industrial Center), IDBI (Industrial Development Bank of India), IFCI (Industrial Finance Corporation of India), ICICI (Industrial Credit and Investment Corporation of India) ,etc., These financial institutions are providing finance to entrepreneurs to startup new venture and also modernize the existing business but this institutions rules are regulations are not easy to avail the finance for the business.

b) Risk bearing Capacity: Generally, rural entrepreneurs have low risk bearing ability due to lack of financial resources and external support. They expect regular income and restrict themselves to invest in their business.

c) Poor infrastructure facilities: Due to lack of proper and adequate infrastructural facilities, the growth of rural entrepreneurs is not very healthy. Infrastructure facilities like transport (bus, train etc.), communication (telephone; fax, internet facilities etc.), power supply are very poor in the rural areas compare with the cities. They are very much useful for the entrepreneurs to successfully run their business.

II Marketing Problems

a) Limited scale and scope of local market opportunities.

b) Lack of market information due to poor communication facility: The absence of effective communication and access to the right information makes it difficult for rural entrepreneurs to understand market trends and policies followed by the government on industrialization.

c) Competition: Rural entrepreneurs are facing tough competition from the large scale organizations and urban entrepreneurs. Rural entrepreneurs cannot compete with the urban entrepreneurs due to lack of standardization and branding and quality of the products. The rural producers are not collective in their approach for marketing their products because they are too widely scattered and mostly uneducated.

d) Middleman: Middlemen exploit rural entrepreneurs. The rural entrepreneurs are heavily dependent on middlemen for marketing of their products who pocket large amount of profit. Storage facilities and poor means of transport are other marketing problems in rural areas. In most of the villages, farmers store the produce in open space, in bags or earthen vessels etc. So these indigenous methods of storage are not capable of protecting the produce from dampness, weevils etc. The agricultural goods are not standardized and graded.

e) Low quality products Today, consumers are more sensitive regarding the quality of the products. Only some big firms follow the

TQM (Total Quality Management) practices in their production. Rural entrepreneur may not produce quality products due to lack of standardized equipments and poor quality of raw materials.

III Management Problems

a) Lack of IT knowledge and Technical Skills: Information technology is not very common in rural areas. Due to low level of technical knowledge and skills, their performance may not be better. Entrepreneurs rely on internal linkages that encourage the flow of goods, services, information and ideas. The intensity of family and personal relationships in rural communities can sometime be helpful but they may also present obstacles to effective business relationships. Business deals may receive less than rigorous objectivity and intercommunity rivalries may reduce the scope for regional cooperation. Decision making process and lines of authority are mostly blurred by local politics in rural areas.

b) Non availability of skilled labours: In rural areas skilled labours may not be available easily to the entrepreneurs. Generally skilled personnel are willing to work in urban areas due to high salary and other amenities when compared to rural areas.

c) Legal Formalities: Rural entrepreneurs find it extremely difficult in complying with various legal formalities in obtaining licenses due to illiteracy and ignorance

d) Procurement of Raw materials: In rural areas raw materials of the business mainly depend on agriculture. If there are no rains, the business operations are affected. Thus, procurement of raw materials is really a tough task for rural entrepreneur. They may end up with poor quality raw materials, may also face the problem of storage and warehousing.

e) Lack of training facilities and extension services crate a hurdle for the development of rural entrepreneurship.

f) Poor Quality of Products: Another important problem is growth of rural entrepreneurship is the inferior quality of products produced due to lack of availability of standard tools and equipment and poor quality of raw materials.

IV Human Resource Problems

a) Low Skill Level of Workers: Most of the entrepreneurs of rural areas are unable to find workers with high skills. Turnover rates are also high in this case. They have to be provided with on the job training and their training is generally a serious problem for entrepreneur as they are mostly uneducated and they have to be taught in local language which they understand easily.

b) Negative Attitude: The environment in the family, society and support system is not conducive to encourage rural people to take up entrepreneurship as a career. It may be due to lack of awareness and knowledge of entrepreneurial opportunities. The young and well educated mostly tend to leave. Continuous motivation is needed in case of rural employee which is sometime difficult for an entrepreneur to impart with.

V Other Problems

a) Political and structural problems: Before establishing the business, entrepreneurs clear the government complicated like business license, pollution and clearance etc. Due to low level of education rural entrepreneurs may not complete this process fastly.

b) Poor knowledge in the maintenance of accounts: Rural entrepreneurs are having poor knowledge in the operation of various business transactions and maintenance of accounts and records. This is because of their illiteracy.

c) Low Purchasing power: Purchasing power of the rural people is low compared to the urban.

d) Adverse social, cultural and industrial environment: Social evils, caste systems, fatalism, religious superstitions, particularly in the country side, do not allow development of adventurous spirit. Lack of skill and expertise in labourers, their tendency to migrate to cities and consumer's habit to buy goods produced by big companies create many problems for new entrepreneurs.

Challenges faced by Rural Entrepreneurs: Growth of Mall Culture, Poor Assistance, Power Failure, Lack of Technical knowhow, Capacity Utilization, Infrastructure Sickness.

Opportunities for Rural Entrepreneurs: Government Schemes for Rural Development, Regional Rural Development Centers, Entrepreneurship Development Institute of India, Banking Technology, Rural Innovation Funding (NABARD, Social Rural Entrepreneurship, Free entry into world trade, Improved risk taking ability, Governments of nations withdrawn some restrictions, Technology and inventions spread into the world, Encouragement to innovations and inventions, Promotion of healthy completions among nations, Consideration increase in government assistance for international trade, The establishment of other national and international institutes to support business among the nations of the world, Benefits of specialization, Social and cultural development.

Policy Implications for Development of Rural Entrepreneurship
The appropriate policy elements for development of rural enterprises are briefly stated as follows:

- Policies should be flexible to facilitate local circumstances.
- The nature of enterprises to be established in rural areas must be conducive to those areas in economic, social and environmental terms.
- Rural enterprise policy should cover all types of rural enterprise.
- There should be consistency and co-ordination with respect to the choice of rural enterprise locations.

Petrin (1994) advocates the following features for rural entrepreneurship development:

- (i) Sound national economic policy for agriculture, including recognition of the important contribution of entrepreneurship to rural economic development.
- (ii) Policies and special programmes for development and channeling of entrepreneurial talent.
- (iii) Entrepreneurial thinking about rural development by everyone.

Organization for Economic Co-operation and Development (OECD, 1999) advocates best practices in four broad areas related to SMEs

that are suitable for both agro industries and other rural enterprises. They are:

- (i) Efficient and unbiased financial markets.
- (ii) Appropriate business environment.
- (iii) Education, training and capability to compete.
- (iv) Access to information, networking and the global market place.

Future of Rural Entrepreneurship in India

India has been steadily growing as an economic power in the past two decades and has been able to create the bare necessary infrastructure required to sustain this rate of growth. The connectivity to remote areas has been improved to a great extent both in terms of physical accessibility by road and rail and virtual accessibility in terms of telecommunications and information technology. Combined with this there is a steady growth in the education among the rural population including professional qualifications among rural youth. This presents the ideal situation for enterprises to spring in the rural areas where the cost of operation, labor and availability of raw materials is substantially cheaper as compared to urban parts of the country.

Suggestions

Labour Intensive Techniques: As there is disguised unemployment in our agriculture sector, labour intensive techniques should be adopted in rural industrial units.

Educate the Rural Entrepreneurs: Government and NGOs offered various schemes and opportunity to the rural entrepreneurs. But, they are unaware of these schemes and opportunities due to their illiteracy. So they should to be educated by the conducting workshops and seminars related to their business.

Offer finance with low rate of interest: Financial institutions like ICICI, SIDBI, IDBI, IFCI, and SFC should provide finance to rural entrepreneurs with low rate of interest and limited collateral security with liberal terms and conditions.

Government Role: Government should take steps to provide infrastructure, warehousing facilities, offer assistance to marketing and to export the goods of rural entrepreneurs to foreign countries.

Exploitation of Village resources: For example, where ever there is scope for wind and solar energy, can be fully exploited for rural electrification.

Ancillary units: Several ancillary units should be established in rural areas which will lead to better productivity of many engineering industries.

Micro credit schemes: Provisions should be made for micro credit system like SHGs to the rural entrepreneurs who will boost up the economic development and employment generation of the rural poor.

Past experiences and other observations should be considered to develop rural entrepreneurship.

Market information of different products and **innovative technology** should be publicly announced by the government in order to get its acceptance among the rural entrepreneurs.

Infrastructure facilities like land, power, raw materials and finance should be provided to the rural entrepreneurs at concessional rates.

Credit Information of the rural entrepreneurs has to be developed so as to enable them to get sufficient amount of loan from the banks at reasonable rate of interest.

SWOT Analysis: Strengths, Weaknesses, Opportunities, and Threats of small businessmen have to be identified and properly trained to motivate them to become entrepreneurs.

Innovators club should be established in villages to support the large mass of youth who are interested in taking business as a career.

Marketing management skills should be improved among the rural entrepreneurs to face the problems of entrepreneurship.

Management training is to be imparted to create awareness of innovative spirit among the rural entrepreneurs.

Awards should be given to those entrepreneurs who demonstrate extraordinary success.

Entrepreneurship development cell should be established at all the villages level to provide guidance and counseling to motivate the rural entrepreneurs regarding the use of modern technology.

Separate financial fund for rural entrepreneurs should be provided by the Government. At the same time they should be provided with adequate and timely financial assistance from all the financial institutions and banks.

Special training programmes for rural entrepreneurs in particular and in general for rural population should be arranged by the Government to improve their knowledge and vocational skills.

Rural youth need to be motivated to take up entrepreneurship as a career, with training and sustaining support systems providing all necessary assistance.

Finance for Modernization: Sufficient finance must be given to modernize their outdated technology, tools and implements in order to enable them to compete with the large scale industries.

Rural entrepreneur should more competitive and efficient in the local & international market.

Successful rural entrepreneurs should show path for other rural entrepreneurs.

Several schemes and plans of government should be strongly executed at different levels for the encouragement of rural entrepreneurs.

Interest free consumption credit should be provided by the Government, Banks and other financial institutions to encourage buying the products produced by rural entrepreneurs.

Agriculture diversification by exploring the opportunities by farming completely a new range of grains, fruits or vegetables.

Establishing agro food processing units or related units like wine production, juice production and many others.

Non-farm product business establishment by promoting local rural artisan work.

OPS (Opportunities, Problem identification and Solution)

Approach: This approach helps an entrepreneur especially neo-rural entrepreneur to explore opportunities include the scanning of the environment to explore the possibilities to start the new venture or to support the already established business in more professional manner. Identifying the exact nature of the problem (External to the organization or internal to the organization? If problem of the business is related with government policy it is external and if it is internal it may be related with strategic issue or operational issue or related with functional issues to set up an industrial unit), after identification of the problem it is easier to utilize the opportunities available in the market to explore further.

Encouraging the skilled and professional people who have left in the rural community to come back in the main stream of the economic activities.

NRI and wealthy people of their respective villages should establish/assist rural industries.

There should be efficient regulated market for the marketing of rural products.

Grading, standardization should be promoted and promotional activities should be enhanced for the benefit of rural industries.

To help to develop flexible manufacturing networks of co-operatives, micro and other manufacturing businesses.

To develop and produce a particular product that none of the firms could manufacture alone i.e., there should be link between them in the manufacture of that product.

To develop the ways and means by which diversify the product lines, markets and expand distribution channel.

To promote co-operation between small firms in the network, thus promoting their competitive efficiency.

To provide different services in the areas of finance, marketing, research and development.

To provide common services of daily matters in production and administration in order to reduce transaction costs.

Conclusion

Rural entrepreneurship plays a vital role in the economic development of India, particularly in the rural economy. It helps in generating employment opportunities in the rural areas with low capital, raising the real income of the people, contributing to the development of agriculture by reducing disguised unemployment, reducing poverty, migration, economic disparity, unemployment. Government should go for appraisal of rural entrepreneurship development schemes and programmes in order to uplift rural areas. Rural entrepreneurship finds it difficult to take off is due to lack of capital accumulation, risk taking and innovation. The rural development programs should combine infrastructure development, education, health services, investment in agriculture and the promotion of rural non-farm activities in which women and rural population can engage themselves. Rural entrepreneurship is the way of converting developing country into developed nation. Promotion of rural entrepreneurship is extremely important in the context of producing gainful employment and reducing the widening disparities between the rural and urban. Monitoring rural development programmes by supplying right information at the right time, providing timely and adequate credit and continuous motivation of bankers, panchayat union leaders and voluntary service organizations will lead to the development of rural entrepreneurship.

References

Advantages of rural entrepreneurs (n.d)

www.thehindu.com/...entrepreneurs...rural-india/article4021062 viewed on 14.03.2013

Annual Reports, Ministry of Micro, Small and Medium Enterprises, Government of India.

Brijesh Patel and Kirit Chavda, “Rural Entrepreneurship in India: Challenges and Problems”, *International Journal of Advanced Research in Computer Science and Management Studies*, 1(2), pp.28-37, 2013.

D. Joel Jebadurai, “An Overview of Problems of Rural Entrepreneurs in India”, *International Journal of Advanced Research in Management and*

Social Sciences, 2(7), pp. 202-208, 2013.

<http://www.publishyourarticles.net/eng/articles/what-are-the-problems-faced-in-growth-of-rural-entrepreneurs-in-india>.

<http://yourstory.in/2011/01/brief-overview-of-indian-government-policies-aiding-rural-entrepreneurship>.

<http://www.scribd.com/doc/26661470/Rural-Entrepreneurship-in-India>

Jha, Kamlesh Kumar, *Rural Marketing Challenges and Opportunities*, ABD Publishers, Jaipur, 2009.

Kishor Choudhary. (2011), Effect of Globalization on Rural Entrepreneurship in India, Half Yearly Global Economic Research Journal, ISSN 2249- 4081, Vol. I, Issue, pp. 88-92.

Keyne, J. (2000), “Rural Entrepreneurship Initiative”, *Kauffman Centre for Entrepreneurial Leadership*, September

Kumar A. “Rural industrialization in India: a strategy for rural development” Mittal Publications, Delhi, 1989.

Mehta, A. (2011), “Rural Entrepreneurship – A Conceptual Understanding with Special Reference to Small Business in Rural India”, *Elixir Marketing*, Vol. 36

Nandanwar Kalpana P. (2011), Role of Rural Entrepreneurship in Rural Development, International Referred Research Journal, ISSN-0974-2832, Vol. II, ISSUE-26, March.

Petrin, T. (1994), “Entrepreneurship as an Economic Force in Rural Development”, *Key Note Paper presented at the 7th FAO / REU International Rural Development Summer School*, Herrsching, Germany, 8– 14 September

Sharma, Swati and Vyas, Divya (2011), “Entrepreneurship in Rural India – A Need Analysis”, *International Journal of Business Economics and Management Research*, Volume 2, Issue 4, April

Sandeep Saxena, “Problems Faced by Rural Entrepreneurs and Remedies to Solve It”, *ISOR Journal of Business and Management*, 3(1), pp. 23-29, 2012.

Santhi N. and Rajesh Kumar S. (2011), *Entrepreneurship Challenges and Opportunities in India*

Climate Change and Impacts – Role of younger Generation.

* Dr. P.Selvaraj

Abstract

Climate Change is the latest topic that is being discussed world over. Though climate change is a global level issue, the solution remains local. Though the Earth is divided as states, nation and countries the sky and atmosphere is common to allie., under one roof. So pollution from any remote corner can affect one and all. Hence, we need to come together to face this issue. This article discusses in detail the differences between weather and climate, climate change, mitigation and adaptation, available funding mechanism projects sanctioned, and latest developments. The important role to be played by all are also highlighted.

Key words

Climate Change, Mitigation, Adaptation, Green Climate Fund, Greenhouse gases, National Implementing Entity

Introduction

Our country which occupies only 2 percent of world land area has 17.50 percent of world's population. We are proud to be World's number one in milk production, cotton, fruits, second in production of wheat, fish culture, and vegetables. At the same time, we are world's third largest emitter of greenhouse gases causing climate change. Though animal population (17 percent of world) and agriculture contribute greatly to this, all will agree that the time is ripe to start action on damage control. The climate is fast changing. We have already started undergoing the ill effects of climate change like tsunami, change in rain fall pattern, increasing temperature, recurrence of drought, melting of Himalayan glaciers, increase in sea level, cloud bust in Uttarakhand, floods in Chennai etc. We need to do something jointly to save the earth. Let us understand the subject little deeper.

What is Climate

To understand climate change, first we should know what is climate and the difference between weather and climate. What we see on

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daily basis is weather. Cool in the morning, hot in afternoon, windy in the evening and after sun set we feel better and cool again. You must have heard “The weather is expected to remain clear for the next three days.” “The cricket match has been cancelled due to adverse weather conditions.” Climate is the average weather in a place over many years. While the weather can change in just a few hours, climate takes hundreds, thousands, even millions of years to change. The difference between weather and climate is a measure of time. Weather is what conditions of the atmosphere are over a short period of time, and climate is how the atmosphere "behaves" over relatively long periods of time. In other words, weather is what we get and climate is what we expect.

Climate Change

Global Warming is another concept which is the increase of Earth's average surface temperature due to effect of greenhouse gases, such as carbon dioxide, methane and nitrous oxide, which trap the heat that would otherwise escape from Earth. According to NASA "Climate change" refers to any long-term change in Earth's climate, or in the climate of a region or city and Global warming" refers to the long-term increase in Earth's average temperature. Climate change includes warming, cooling and changes besides temperature. Human causes to climate change includes release of Greenhouse gases, coal mining deforestation, burning of fossil fuels, industrial processes, agriculture including animal husbandry.

There are three options/ways to deal with this issue. They are

- 1) We can reduce / stop the amount of greenhouse gases in the atmosphere. This is called mitigation i.e, any activities that reduce the overall concentration of greenhouse gases in the atmosphere. It means avoiding the unmanageable. It includes tree planting and protection of existing forests, switching from fossil fuels to renewable energy sources, such as wind and solar, improving energy efficiency and capturing carbon emissions and preventing them from reaching the atmosphere.
- 2) The second one is we can invent ways to reduce the vulnerability of people, ecosystems and infrastructure to the impacts of climate

change. It is called adaptation meaning managing the uncontrollable. This includes things like building defenses to protect coastal areas from rising seas, switching to drought or flood resistant crop varieties, climate smart agriculture, weather proofing, improving early warning systems to warn of heat-waves, disease outbreaks and climate-related disasters such as flood and cyclones.

3) The third option is doing the combination of both.

Though climate change is a global level issue / problem, the solution remains local. Though the earth is divided as states, nation and countries the sky and atmosphere is common to all i.e., we all are under one roof. So pollution from any remote corner can affect one and all. Hence, we need to come together to solve / face this issue.

Developments world over

The United Nations Framework Convention on Climate Change (UNFCCC) is an intergovernmental treaty developed to address the problem of climate change all over the world. It was established on 21st March 1994, and now has 196 country representatives i.e., parties. The parties are to meet regularly to take stock of progress in implementing their obligations under the treaty, and to consider further actions to address the climate change threat. First such meet was held in Kyoto, Japan in December 1997 and popularly known as Kyoto Protocol. Due to various issues, the Protocol finally entered into force as a legally-binding document on 16 February 2005. The first commitment period of Kyoto protocol came to end in December 2012.

India has signed the UNFCCC and has acceded to the Kyoto Protocol in 2002 itself and the Government of India has also formulated the National Action Plan on Climate Change (NAPCC) with 08 Missions to help the country adapt to the effects of climate variability and change. They are given below:

1. Jawaharlal Nehru National Solar Mission.
2. National Mission for Enhanced Energy Efficiency
3. National Mission on Sustainable Habitat

4. National Water Mission
5. National Mission for Sustainable Agriculture
6. National Mission for Sustaining the Himalayan Ecosystem
7. National Mission for a Green India
8. National Mission on Strategic Knowledge for Climate Change

Based on NAPCC, State Governments have prepared State Action on Climate Change (SAPCC). They could be seen from the respective State government's websites.

In December 2015 the COP (Conference of Parties) 21 was held at Paris which was attended by countries including India. As per the provisions of the Paris Agreement, the treaty will come into force as and when 55 countries contributing to 55 percent of total global emission ratify the agreement. India ratified the Paris Agreement (on Climate Change) on 2nd October 2016, the day of birth anniversary of Mahatma Gandhi and was 62nd country to do so. This has pushed the cumulative level of emission of countries that have ratified the agreement as on 2nd October 2016 to 51.89 percent. (Ministry of EF&CC). Few more countries are yet to ratify to meet the benchmark of 55 percent of global emission (short fall is 3.11 percent). This is expected to be achieved at the earliest, so that the agreement become a legally binding one by all countries. Next meeting i.e., COP 22 was planned to be conducted in Morocco, North Africa in November 2016.

Consequent to Paris agreement India is committed to do the following.

- reduce carbon intensity of growth by 33-35 percent over 2005 levels,
- raise the share of non-fossil fuel power to 40 percent by 2030, and to produce 175 GW (Gigga watts) of renewable power by 2022.
- forest cover would be expanded to absorb 2.5 billion tonnes worth of carbon dioxide

- fossil fuel dependence would be reduced by levying taxes as well as cutting subsidies.
- Cities would be transformed through improvements to their efficiency and improving public transport.

According to scientific assessments, in 2014, US occupied first position with 15 percent emission of atmosphere-warming greenhouse gases followed by China with 25 percent and India with 7 percent. (The Hindu).

Financial Support for Mitigation and adaptation

In order to support the mitigation and adaptation initiatives / activities all over the world, various funding mechanisms such as Adaptation Fund (AF) and Green Climate Fund (GCF) have been constituted under UNFCCC.

In India, National Bank for Agriculture and Rural Development (NABARD), an apex Developmental Financial Institution, owned by Government of India and Reserve Bank of India, has been designated as National Implementing Entity (NIE). NABARD would perform roles in facilitating identification of project ideas/concepts from State Action Plan for Climate Change, project formulation, appraisal, sanction, disbursement of fund, monitoring & evaluation and above all capacity building of stakeholders.

Consequent up on the announcement by Hon'ble Union Finance Minister in his interim budget speech on 10 July 2014, another fund called "National Adaptation Fund for Climate Change"(NAFCC) was established in August 2015 by Ministry of Environment, Forest and Climate Change (MEFCC) to meet the cost of adaptation to climate change for the State and Union Territories of India, vulnerable to climate change. For this fund also NABARD is designated as NIE. The following are the projects sanctioned under Adaptation fund of UNFCCC as of March 2016.

Sr. No.	Name of project State	State	Project outlay (US\$ million)
1	Conservation and Management of Coastal Resources as a Potential Adaptation Strategy for Sea Level Rise	Andhra Pradesh	0.69

2	Enhancing Adaptive Capacity and increasing Resilience of Small and Marginal Farmers	West Bengal	2.51
3	Building Adaptive Capacities of Small Inland Fishermen Community for Climate Resilience and Livelihood Security	Madhya Pradesh	1.79
4	Climate Proofing of Watershed Development Projects.	Tamil Nadu and Rajasthan	1.34
5	Climate Smart Actions and Strategies in North Western Himalayan Region for Sustainable Livelihoods of Agriculture-Dependent Hill Communities	Uttarakhand	0.97
		Total	7.30

(Source : Annual report NABARD, 2016)

All these projects are under various stages on implementation. Once completed these projects will contribute a lot towards mitigation and adaptation efforts against the effects of climate change in our country.

Action Required

From the above paragraphs, one can understand that Climate change is real. It has significant impact on our daily routine, agriculture and rural development. The major causes for climate change have been found to be man-made. We need to do something about this. The elders should take an oath to pass on this universe to the next generation in a liveable condition or at least the same condition as we received. The younger generation should act immediately to avoid further damages and for their better future. The following may appear as small things but is can do wonders for our present and future generations, in mitigation and adaptation of climate change.

- There is an urgent need for creating awareness among all, on this important topic. Colleges and Universities may arrange special lectures in this topic through innovation clubs / quality circles and make awareness among the younger generations.
- Change the existing electric bulbs to compact fluorescent

light (CFL) bulbs or light-emitting diode (LED) bulbs. This will save energy thereby reduce the need for burning coal for production of electricity.

- Switch off power (lights and fan) when not required. Conserve electricity. Unplug the mobile once the charge is complete. Never put mobile on charging overnight.
- Promote and encourage renewable energy sources like solar lighting, solar water heater, solar pumps, wind mills, hydroelectric projects etc.,
- Save water and use it efficiently. We need to avoid wastage of this important and scarce source. Encourage rain water harvest, recycling of water and micro irrigation systems etc.,
- Avoid burning of fossil fuels.
- Adapt Solid waste Management. Restrain from use of plastic/polythene bags
- Go paperless as far as possible. Print only when required that too only required number of copies. Saving paper also mean reduced afforestation. Forest cover helps carbon sink i.e., removal of carbon dioxide (CO₂) from our environment.
- Plant more trees. Avoid cutting trees.
- Use public transportation facilities instead of cars, bikes etc. This will not only save your pocket but also reduce emission of nitrous oxide, one of the greenhouse gases. Car pool is an excellent idea.
- Avoid wastages of all resources.

Conclusion

Father of nation Mahatma Gandhi said” “The earth provides enough to satisfy every person's need, but not every person's greed.” This is applicable even today. Climate change is a global problem, affecting every one. But the solution is local. Everyone has to contribute to mitigate or adapt the effects of climate change. Government of India is implementing various initiatives like world's first solar powered airport at Kochi, Solar powered toll plazas, Reduction in fossil fuel

subsidies, increasing Coal Cess from Rs 50 to Rs 200 per ton, Swachh Bharat Mission, 100 smart cities, Paramparagat Krishi Vikas Yojana (organic farming) Pradhan Mantri Krishi Sinchayee Yojana (efficient irrigation) Pradhan Mantri Fasal Bima Yojana (Crop insurance) Neeranchal (watershed development) etc. In addition to create mass level awareness creation, everyone especially, our younger generation needs to play a lead and vital role in mitigation and adaptation of climate change for a better future. We should not forget that the Earth is only a gift to us. This has to be passed on to the future generations in good and liveable conditions. It is moral responsibility of all of us.

References

NABARD 2015-16 Annual report

The Hindu, 2015 “Modi asks rich nations to cut emissions, share carbon space with poor” “Paris edition dated 01 Dec 2015

Website of Ministry of Environment, Forestry and Climate change (MEFCC) <http://envfor.nic.in/>

The Wonderland of Equity and Real Estate Investment

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Abstract

The Equity investment is an avenue where even a common man has an opportunity to enter the wonderland of investment with his meager savings. Common investors in the stock market generally rely on rumor, tipsters and manipulators. They rarely use the marvels of modern technology which to a great extent are in favour of genuine investor. There is no other avenue of investments that offers better returns than equity stock market. The Real Estate investment is other end of investment where the entry is for financially sound investors. The present paper tries to offer a bunch of a few suggestions with which a sensible, patient and disciplined investor can earn a few bucks.

Keywords: Equity market, Speculation, Investment Avenue, Investor Risk, Diversification Blue chip shares

Introduction

The present paper is intended to help beginners invest effectively in stocks and seasoned investors to revisit and reinforce certain crucial aspects of equity investment.

Much has changed in the Indian stock market over the last few decades. But none of these changes have hindered the implementation of the ideas in this paper. On the contrary, the marvels of modern technology and better regulation have worked in favour of a genuine equity investor, who is willing to use a little common sense and self-discipline in equity investment.

Essentially, the investors are advised to choose investment over speculation; to invest in the Indian economy by constructing a well-

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diversified portfolio of blue chip stocks; to buy and then hold on to these stocks for the long run; to reinvest dividends; to invest with a margin of safety; to have a regular programme of investing during their financially productive years; to ignore stockbroker 'tips', 'research reports' and other day-to-day noise in the equity markets; to eschew day trading, margin trading, trading in derivatives, commodities and currencies, and other assorted forms of financial market madness; and to aim for optimum returns, rather than attempt to get rich quick.

The stock market as an avenue of investment

Common investors in the stock market routinely rely on tipsters and manipulators, little realising that an overwhelming majority of 'experts' are sadly innocent of sound investment knowledge. Most stock brokerages flaunt 'research' departments that are of questionable value. Their *raison d'etre* appears to be to make investors trade more and more, so that higher brokerages are earned. The golden principle of stock market investment is that, in a boom, you do not need the advice of experts to make money. Any trash you buy will appreciate. In a recession, the advice of the best experts will not prevent you from losing money.

Should then, a self-respecting investor keep away from the stock market? The answer is an emphatic NO! The stock market is a legitimate avenue of investment. Equity, real estate and your own business are three avenues that have consistently beaten inflation and genuinely enhanced wealth in the long run. Business of course, is not for everyone. But it would be difficult to find another avenue of investment that offers better returns than stocks, to a sensible, patient and disciplined investor.

Investment vs Speculation

Why then, do so many “investors” lose in the stock market? The answer is simple. Those who lose are not investors, but speculators. The stock market provides opportunities not just for investment, but also for speculation. Most investors fall prey to the temptation of quick riches through speculation. In the process, they almost always encounter quick poverty. Today, day traders, margin traders and

punters in the derivatives, currency and commodities markets embody the essence of what a genuine stock market investor should not be!

If speculation is an activity of enduring value, it could be supported. But, the sad fact is that it is not. In the short-run, speculative actions affect market sentiment hugely, leading to distortions in stock prices. But in the long run, reality, rules, says John Bogle, founder chairman of Vanguard Mutual Fund and author of the investment classic “Common Sense on Mutual Funds”.

So, insiders in the stockbrokerage business never tire of repeating to their employees that, “The more you churn, the more you earn”. That is why the stockbrokerage industry harps on the “virtues” of tips, research and frequent trading. John Bogle succinctly summarises the game that is being played on often unsuspecting investors, when he states: “Much of the (investment) industry is engaged in a hell-bent mission to take hold of the finest instrument ever created for long-term investing (equity), and transform it into a vehicle for intermediate-term, and even short-term speculation.”

So let us sound a simple caution at the very outset: If you try to 'play' the stock market, you'll soon discover that it is the stock market that's playing with you.

Jason Zweig, internationally renowned author and writer on financial matters, states: “Day trading – holding stocks for a few hours at a time – is one of the best weapons ever invented for committing financial suicide. Some of your trades might make money, most of your trades will lose money, but your broker will always make money.” He also says, “Speculation becomes mortally dangerous the moment you begin to take it seriously”.

So when you get the urge to speculate, remind yourself that you are undertaking an activity whose role over time is – well, nothing from your point of view, but everything from your stockbroker's point of view. Jason Zweig warns that “People who invest, make money for themselves. People who speculate, make money for their brokers. And that in turn, is why Wall Street perennially downplays the

endurable virtues of investing, and hypes the gaudy appeal of speculation.”

The Real Risks in Equity Investment – Stockbrokers and 'Researchers' (or should we call them 'Risk Searchers'?)

One of the most poorly understood concepts in the stock market is RISK. The risk in stock speculation can be far greater than you imagine. The risk in equity investment on the other hand is far less than you fear. In fact, as an old stock market saying goes, “The great long-term risk of stocks is, not owning them.”

No one can predict the stock market in the short term. In the long run, predicting the market is relatively easy. Long-term stock market returns are a total of the current dividend yield and the rate of growth of corporate earnings. Charles D Ellis, author of 'Winning the Loser's Game' mentions: “The stock market is fascinating and quite deceptive – in the short run. Over the very long run, the market can be almost boringly reliable and predictable.”

In stock investments, the uncertainty of return reduces with time. In most other investment avenues, the uncertainty of return increases with time. So one can reduce risk, eventually eliminate it, and earn returns from a diversified portfolio of quality stocks, by the mere activity (or inactivity!) of holding on to it, and reinvesting the dividends you earn along the way.

Do you think the worthies in the stockbrokerage industry do not know this? Of course they do! Then why do they give advice contrary to long-term, buy-and-hold investing? Perhaps the answer lies in this statement of author Upton Sinclair: “It is difficult to get a man to understand something, when his salary depends upon not understanding it.” Remember this the next time you have the misfortune to encounter a tele-salesperson, 'relationship manager', insurance agent, mutual fund distributor, stockbroker's salesperson, portfolio manager ('damager'?!), wealth manager, equity researcher or any other fancifully titled peddler of financial 'products'.

There is old English saying that is apt here: “Never buy anything from someone who is out of breath.” If something is sold

aggressively, it may be hardly worth buying. Something authentic and valuable does not need to be sold. It will be bought. Likewise, the top financial professionals will never stoop to selling. They do not need to, because people will flock to them for their expertise. You will have to approach them on their terms if you want their services. So reflect for a moment on what the caliber of those actively and aggressively pushing financial products is likely to be.

How do you invest in the stock market?

If you are one of those who would like to invest in the stock market, here are a few rules that have proved themselves useful and effective over not decades, but centuries.

These rules are -

1. Diversify across 10 to 20 major economic / industry sectors
2. Have Equity investment time horizon - at least 5 years
3. Select only the top blue chips
4. Reinvest dividends
5. Plan-When and how much to invest
6. Review the portfolio

1) Diversification

The first rule employs the risk management tool of diversification. It does not mean that an investor must start equity investment with 10 to 20 major sectors straightaway. However, an equity investor must build a portfolio across 10 to 20 major economic or industry sectors over a reasonable period of time.

Why 10 to 20 sectors? Around 2,800 stocks are traded on the Indian stock markets, daily. These companies can be divided into 100 to 120 sectors. The ideal equity model argues that a sample of between 10 and 20 per cent of these sectors is more than enough to build a good equity portfolio. The model also stipulates that the sectors chosen should be major sectors, e.g., steel, cement, power, engineering, pharmaceuticals, software, banking and finance, fast moving consumer goods, automobiles, etc., rather than minor sectors like

aquaculture, cigarettes, dyes and pigments, glass products, leather products, moulded luggage and so on.

How much should you diversify? And why arguments against excessive diversification are bogus

The total risk in the stock market can be of two types: Systemic Risk (formerly called Systematic Risk) and Non-Systemic Risk (formerly called Unsystematic Risk). Systemic Risk affects the stock market system as a whole. For example, if war breaks out or corporate income-taxes are increased sharply, the entire market will be affected adversely. These are examples of systemic risk.

Non-systemic Risk affects a particular company or sector or industrial group only, and not the entire market. Accounting frauds, family squabbles in family-owned businesses, mismanagement, poor prospects, intense competition or gluts, and government policies unfavourable to a particular sector or company, are examples of non-systemic risk.

Non-systemic Risk can be managed very effectively through diversification. If a portfolio is diversified across 30 blue chip stocks spread over at least 10 major economic or industry sectors, non-systemic risk is substantially reduced. But if the portfolio is diversified across at least 60 stocks spread over 20 or more major economic or industry sectors, non-systemic risk can be virtually eliminated.

Systemic Risk is much more difficult to manage, but can be tackled with reasonable success, by systematic or recurring investment, which is nothing but diversification across time.

2) Equity investment time horizon

The second rule cautions the investor that equity is a long-term investment avenue, with a minimum time horizon of at least 5 years. An investment time horizon is a time element attached to each avenue of investment, which if adhered to, eliminates risk and delivers optimum returns. The lure of speculation misleads most 'investors' into seeking maximum returns. Sadly, they end up with minimum returns or, far likelier, substantial losses. On the other hand, there is such a thing as an optimum return, a concept investors ignore at their

peril.

Stock markets have a history of more than 400 years. We need not calculate the average return for that period. But being aware of average stock market returns for the last 30 to 60 years is a useful indicator to gauge optimum returns. Most investors who seek to obtain optimum returns from their equity investments find that in the long run the actual return they get is very often appreciably greater than optimum.

Of course, if an investor makes substantial profits before the time horizon runs out, he can always liquidate his investments, if need be. A time horizon of at least five years only means that the money reserved for equity investment, should be money that the investor does not ordinarily need for at least 5 years. It appears that too much importance is given to booking profits and market timing. Investors are advised to exercise their discretion and decide - when to sell.

Legendary stock market investor Warren Buffet remarked that his "favourite holding period is for ever." The most successful investors we have seen are those who have followed Buffett's dictum, accumulated equity investments over thirty or forty years or more, and never sold! These investors now earn dividend income and have long-term capital appreciation that is more than enough to see them through retirement very comfortably!

Why at least 5 years

History shows that generally, a boom and recession cycle in the stock market takes an average of 5 years to complete. That is why a period of at least 5 years has been estimated to be a reasonable minimum time horizon for equity investment. A time horizon of 'at least 5 years' only means that the money reserved for equity investment should be money that the investor can afford to block for at least 5 years.

3) Select only the top Blue Chips

The third rule is equally important, because most investors have a problem of stock selection. They always ask a broker which share to buy. Instead of this, it is better to choose only blue chips Blue chips

are stocks that are the best in their class or sector. Blue chips need not necessarily be large-cap companies. Where should you choose stocks from? The 200-stock indices of either the Bombay or National stock exchanges should be a more than adequate basket from which to construct your portfolio.

Why only Blue Chips?

Because blue chips are liquid. They are generally around for the medium to long-term. They attract the best management talent. More often than not, they have the highest standards of corporate governance. They focus on enhancing shareholder value. They are adept at managing rapidly changing business, economic, fiscal, tax and political environments. They generally contribute heavily to the state exchequer through both direct and indirect taxes. They provide considerable employment.

These qualities give blue chips significant economic impact. Economic impact simply means the strength to lobby effectively with the powers that be, for legislative and policy changes required to meet challenges during recessions and other difficult times. Economic impact also means that the company is so important that its failure will have an adverse effect on the entire economy.

4) Reinvest dividends - Do not spend them

The fourth rule encourages investors to reinvest dividends. Equity is a growth avenue, not an avenue that is designed to provide regular returns. Dividends received, even though they may be relatively small sums, should be collected and reinvested in the stock market, whenever they accumulate to meaningful amounts.

According to research by Crandall, Pierce & Company, an investment of one US dollar in the S&P 500 stocks on 31st May 1946 would have been worth \$ 47.53 on 31st July 2002, had dividends not been reinvested. Had dividends been reinvested, the \$ 1 would have grown to \$ 405.92 in the same period! That is why Benjamin Graham has enlightened us that, "Far from being an afterthought, dividends are the greatest force in stock investing."

It is advised to have a separate savings bank account registered with

the depository participant where you have your demat account. Dividends will be credited to this bank account. Do not use the said bank account for any other purpose. This helps you to easily collect, account for and reinvest dividends.

5) When and how much to invest

Investment should be made uniformly across sectors. Because, at any given time in the stock market, the spotlight is on just one or two sectors which are fancied at that time. Most stock market players dabble only in these fancied sectors. However, the spotlight can shift to other sectors, without warning. It is very difficult for an individual investor to predict these changes in market fancy. It is also difficult for ordinary investors to predict how changes in business, economic and tax policy will affect the collective psyche of the stock market.

Therefore, one can easily implement an investment model by simply investing equal amounts (a minimum of Rs 20,000/- per stock would be viable today) in each of the stocks listed at the end of this paper. In order to build a satisfactory portfolio therefore, one would need a minimum of Rs 6 lakhs, for 30 companies. The ideal portfolio will be Rs 12 lakhs for 60 companies. One can start with smaller amounts, provided your ultimate objective is to build a portfolio of approximately 60 stocks.

The common investor is generally unable to gauge the impact of such changes on the various sectors of the economy. The first two rules of this model stipulate that only major sectors and top blue chips be chosen. Once this is accomplished, it is better to allocate equally between these major sectors, because in a time horizon of five years or more, all major sectors and blue chips have an even chance of performing well and therefore hogging the limelight. So, a prudent investor would do well to spread his investment uniformly across a minimum basket of 10 to 20 major sectors.

When to invest?

You may have a lump sum to invest in equity. Or you may be one of those individuals with a steady income in the form of salary or rentals, and desire to invest regularly. These two situations are not the same. They need to be addressed using different strategies.

Lump Sum Equity Investment – Invest only with a 'Margin of Safety'

Benjamin Graham insisted that lump sum equity investment must be made only with a 'margin of safety'. Graham's calculation of the margin of safety was quite complicated. Reduced to a thumb rule however, the margin of safety cautions investors to ensure that they do not pay too high a price for stocks.

After the Great Depression of 1929-32 in the US, the largest falls in the world's equity markets have been approximately 50 percent from peak to bottom. Falls of this magnitude occur rarely. Ever since 1st April 1979, from which date the Bombay Stock Exchange 30-stock Sensitive Index has been calculated, falls of 50 percent have occurred only on three occasions – in financial years 1992-93, 2000-01 and 2008-09. Half of this maximum fall, that is 25 percent from peak, can be a sensible margin of safety. Falls of 25 percent from the last peak happen significantly more often than falls of 50 percent.

The last peak for the BSE Sensex was 29,682 (closing value) points on 29th January 2015. The margin of safety would therefore kick in at 25 percent below this level, at 22,262 points. So lump sum investment in the stock market should be attempted only at this level. One additional safeguard is advised. Ensure that the price-earnings ratios of the leading indices such as the BSE Sensitive Index and the NSE-50 Index or Nifty are below 20, in addition to these indices being 25 percent below their peak, to confirm the margin of safety.

Margin of Safety

The 'margin of safety' is applicable only to lump sum investment and not to systematic, recurring or periodic investment, provided the systematic investment programme is continued without interruption for at least five years. In short, systematic investment into equity can be started at any time. The only stipulation is that once started, it must be continued uninterrupted, for a minimum of five years, and preferably for much longer periods.

It can be observed that virtually all common investors mainly invest when the market is at its peak, and withdraw from the market, often in

panic, when it crashes. Actually, investors should do the reverse, but some behavioural self-destruct switch seems embedded in all of us! Systematic investment enables the investor to obtain better market pricing automatically, by buying more stocks when the market is low and less when the market is high. The result is that erratic investor behavior is controlled and corrected without the investor even being aware of it! Systematic investment also makes investment a habit, through regular, disciplined investing. There is great value in cultivating such a habit.

Finally, whether for systematic or lump sum investment, there is always a minimum viable amount. In the present scenario, this minimum, in our opinion, would be at least Rs 20,000/- per month. You must first see whether you are comfortable with this amount before embarking upon direct equity investment. If not, stick to equity index mutual funds or well diversified equity mutual funds.

The second option is to invest systematically. If you are investing systematically, the minimum amount must be Rs 20,000/- per month. You must be able to sustain this investment for a minimum of 60 months. If you want to invest more than Rs 20,000/- per month, that is fine. If you want say Rs 30,000/- of a stock per month, go right ahead.

But if you can afford Rs 40,000/- per month, it is better to purchase two stocks of Rs 20,000/- each at intervals of a fortnight, for better diversification. Once you complete investing in the entire list of recommended stocks, you can start again from stock number 1.

Now look at the way the stocks are arranged in our list of recommendations. The first stock is from services, the second from manufacturing, the third from services, the fourth from manufacturing and the fifth from agriculture/agrochemicals/dairy products/food. So by the time you have purchased five stocks, you have made one round trip of the economy. You will find that the next lot of five stocks is similarly arranged, and that's how the strategy progresses, to the extent it can diversify across the said three economic segments.

Once you invest in the economy through a well-diversified portfolio of blue chips, do not worry about the performance of individual stocks. Diversification and an adequately long time horizon will work at both risk reduction as well as return optimization.

6) Review the portfolio

The sixth rule is about reviewing equity investments. Regular reviews keep an investor constantly aware of the state of his portfolio and the risk and return thereof. Reviews also alert the investor to opportunities for further investments which can enhance the value of a portfolio. Finally, 'reviewing' is not 'tinkering.' Long-term equity investment with regular reviews makes investors wealthy.

Tinkering makes brokers wealthy, often at the cost of investors! 'Reviewing' is being aware of one's portfolio and its performance on a regular basis. From our experience, additional investment needs to be made only upon a drop of at least 25 per cent in the index, from the date of original purchase, or upon a drop of 25 percent from the last index peak, depending upon when the investor has made his original investment.

Buy and hold a well-diversified portfolio of blue chip stocks from major economic segments and industry sectors

The 'buy-and-hold' is the simplest, oldest and best strategy ever invented for equity investment. What must you buy? Focus on blue chips.

In addition, the long-term capital appreciation on their equity portfolios is more than enough to see them through retirement very comfortably, and also leave substantial legacies. All this, despite several companies in their well-diversified portfolios having fared badly, and several having been liquidated!

Why major economic sectors?

Because these sectors have a significant role to play in the economy of the country. They are under constant scrutiny of the government, regulators, the press, the public and a gaggle of economists, all of whom have a stake in ensuring their healthy growth. Neglect of major economic sectors could mean recession, which no government

in its right mind would want to usher in.

Booking profits

When do you sell an equity portfolio? Many books of dubious value with titles like “It's when you Sell that Counts” have been published. Buffett has repeatedly said that “the correct holding period for stock market investments is forever”. Profits in quality equity portfolios need never be booked. A lifetime of steady investing will probably provide more than enough dividend income to comfortably take care of normal living expenses in later years.

Dividends are also much more stable than stock prices. They increase over time, generally at a rate that is in excess of inflation. Undoubtedly, companies, like human beings, have a lifespan. The concept of 'perpetual existence' that is supposed to be a cornerstone of the corporate structure is a highly iffy notion. Companies can be taken over, merged, amalgamated, sold. Companies may also dispose of ('demerge' is the inelegant term used) certain divisions, change their names and ownership structures and even go into liquidation. All this occurs with unbecoming regularity for entities with an allegedly perpetual existence.

Should the gymnastics in the corporate world affect you? In your portfolio there will be stocks that do extraordinarily well, stocks that lag behind in performance and other stocks whose performance is middling. This is normal portfolio behavior. Once you have constructed a quality portfolio, do not get perturbed about the performance of individual stocks. Remember, it is portfolio returns that are important, not the returns of the individual stocks in the portfolio.

Your equity portfolio can certainly be realigned to a model portfolio like the one in the list at the end of this paper. Your equity portfolio can also be realigned to a well-diversified index. The 200-stock indices of either the Bombay or National stock exchanges should do nicely here. However, do not undertake portfolio realignment often, as you will only incur expenses and run the risk of developing a trading mentality.

Realignment once in five years is more than enough. Until then, give time a chance to work for you. In the interim, do not worry if one or two companies do very badly or even go into liquidation. At the cost of being repetitive, let us drive home the point that it is portfolio performance that matters, not the performance of the individual components thereof. To be a truly successful stock market investor, you must one day reach the stage where dividend income takes care of your normal expenses and your equity portfolio either passes on to your descendants or is left to charity.

A word about the recommendation list

Before we unleash our list of recommended stocks on you, a few concluding thoughts from the greats. Warren Buffett says that investing is a marathon, not a hundred metre sprint. He also mentions that it is not necessary to do extraordinary things to get extraordinary results. An old investment saying reminds us that the ultimate objective of good investing is to obtain above average returns, with below average risk.

Frank Netti says that sound investment will decrease the time during which you work for money, and increase the time during which money will work for you. We hope this paper has given you some insights into what genuine equity investment is all about. We have tried our best to remain true to our mission of translating the ideas of the finest equity investors and advisers into a practical plan of action for the common investor. Our list of recommended stocks appears overleaf.

Now, the story of real estate investments

Equity is a growth investment. It is designed to increase the wealth of its owner over a period of time. Any growth investment must have two attributes. The first is a principal value that will fluctuate, sometimes violently, in the short-term, but grow in the long-term at a rate equal to or greater than inflation. The second attribute is an income stream which may fluctuate in the short run but will grow in the long run, once again at a rate that is equal to or greater than inflation. Therefore, to merit the term 'growth investment', there must not only be a principal amount invested but also an

accompanying income stream. Thus, stocks yield dividends. Real estate properties purchased as investments must yield rentals.

Real estate is an excellent, long-term, wealth, enhancing avenue of investment. However, it suffers from some obvious and other not-so-obvious drawbacks.

The obvious drawbacks include:

- Poor liquidity. Even in the most frenzied real estate boom, it is not easy to purchase and sell real estate. During a recession in the real estate market on the other hand, liquidity simply evaporates.
- Title. Despite best efforts and the opinion of legal and other experts, being absolutely sure about clear title to a real estate property can be challenging.
- A large amount of capital is required for a single purchase.
- Large amounts are also required for additional purchases even in a real estate market that has fallen sharply.
- Black money is a menace that lurks behind almost all real estate transactions.
- High stamp duty on purchases of real estate. If you purchase Rs 100 lakhs worth of equity shares, they are credited to your demat account without further cost. But if you purchase real estate worth Rs 100 lakhs, in the state of Karnataka at least, you will spend an additional Rs 7 lakhs approximately to register the transfer of the title thereof in your name.
- Purchase and sale formalities in real estate are time consuming and cumbersome.
- Real estate has certain administrative difficulties. For example, squatting, encroachment, fraud and criminal intimidation by the land mafia and a number of other problems, especially involving absentee landlordism.

The not-so-obvious drawbacks of real estate investing are:

First, misleading returns where income from either capital appreciation or rental is concerned. The maintenance of physical real

estate can be quite heavy. Any developed structure like an apartment or commercial premises requires periodical painting, repairs, renovation, payment of property taxes, etc. Very often, the owner does not relate these expenses to the income received from the property. The expenses are met out of normal income from employment, business or profession. The owner only thinks of the gross return that he is getting, without realising that the net return may be considerably less.

Second, thanks to the Securities Transactions Tax (STT) which at present is so negligible as to be laughable, stock market investment escapes capital gains tax in India. Real estate investments are not so fortunate. Even after cost inflation indexing and all other tax avoidance measures, long-term capital gains taxes can be substantial.

Third, the greater the holdings of real estate, the more the hassles of maintenance, dealing with tenants, complaints from tenants or neighbours, etc., especially as real estate investors advance in age. There are instances where wealthy individuals who have sold real assets just to reduce stress caused by their holdings, and not because they needed the money.

Regarding reinvesting rentals during one's active working life. It is difficult to reinvest rentals back into real estate, in view of the cost involved, unless a housing loan is taken and existing rentals go towards paying the loan installments. Alternatively, several real estate investors channel rentals into either stock or equity mutual fund investments on a systematic basis, which is an excellent idea.

There is also a trend today of youngsters studying, working and settling abroad. This makes it even more difficult for ageing parents to look after real estate assets in India, especially if such assets are spread over 2 or 3 cities or states. Children who are settled abroad for a considerable time are very often not interested in the real estate assets of their parents in India. Transmission of these assets to the children after the lifetime of the parents is neither quick nor easy.

No wonder Benjamin Graham enlightens us that, "Far from being an afterthought, dividends are the greatest force in stock investing."

Should one go in for real estate investments?

The best advice on this subject is that human beings can be broadly

divided into two categories where real estate is concerned. The first category has a special interest in, very often coupled with a talent for, real estate investment. If you fall into this category, you can by all means invest in real estate, bearing in mind that the real estate investment time horizon is 10 years. In short, you should be prepared to block your investment for at least 10 years, if required, in order to obtain optimum returns.

But if you fall into the second category of individuals, who have no interest whatsoever in real estate, then you would be well advised to purchase real estate only to the extent that you have a use for it. One use of real estate is universal. Everyone requires a residence. So it is incumbent upon everyone to acquire a dwelling.

In addition, a person in financial services, or a chartered accountant or physician, would require an office. So, this individual must try to eventually own both a residence and an office. Take one more example, of a person who designs, manufactures and markets furniture. Such a person requires a residence, some sort of an old structure or shed in a non-prominent area, even a little away from the city, where the furniture can be manufactured, and a showroom in a high-visibility commercial area in the city, where the furniture can be displayed and marketed. This person must ultimately try to own all three premises because he has a use for all three.

Consumption vs Investment in Real Estate:

One residential apartment or house is not considered as an investment because it is **consumed** for the residence of the individual and his family. Many people do not realise that the considerations when purchasing real estate for consumption are dramatically different from the considerations when purchasing real estate for investment.

When purchasing real estate for consumption, price may not be the sole deciding factor. It is okay to pay even a fancy price, if the premises is in an outstanding location with good facilities and conveniences and if all members of the family agree that the premises in question is close to their concept of a dream home. Since the happiness of the family cannot be measured in terms of money, resources permitting, it is okay to pay a price that is higher than the fair market value.

But when purchasing real estate for investment, it is only investment considerations that must apply. The best advice here comes from Professor Burton Malkiel, Princeton professor of economics and author of the investment classic “A Random Walk down Wall Street”. Professor Malkiel says that **real estate must be purchased as an investment only if the rental yield is equal to or greater than the yield on short-term bonds.**

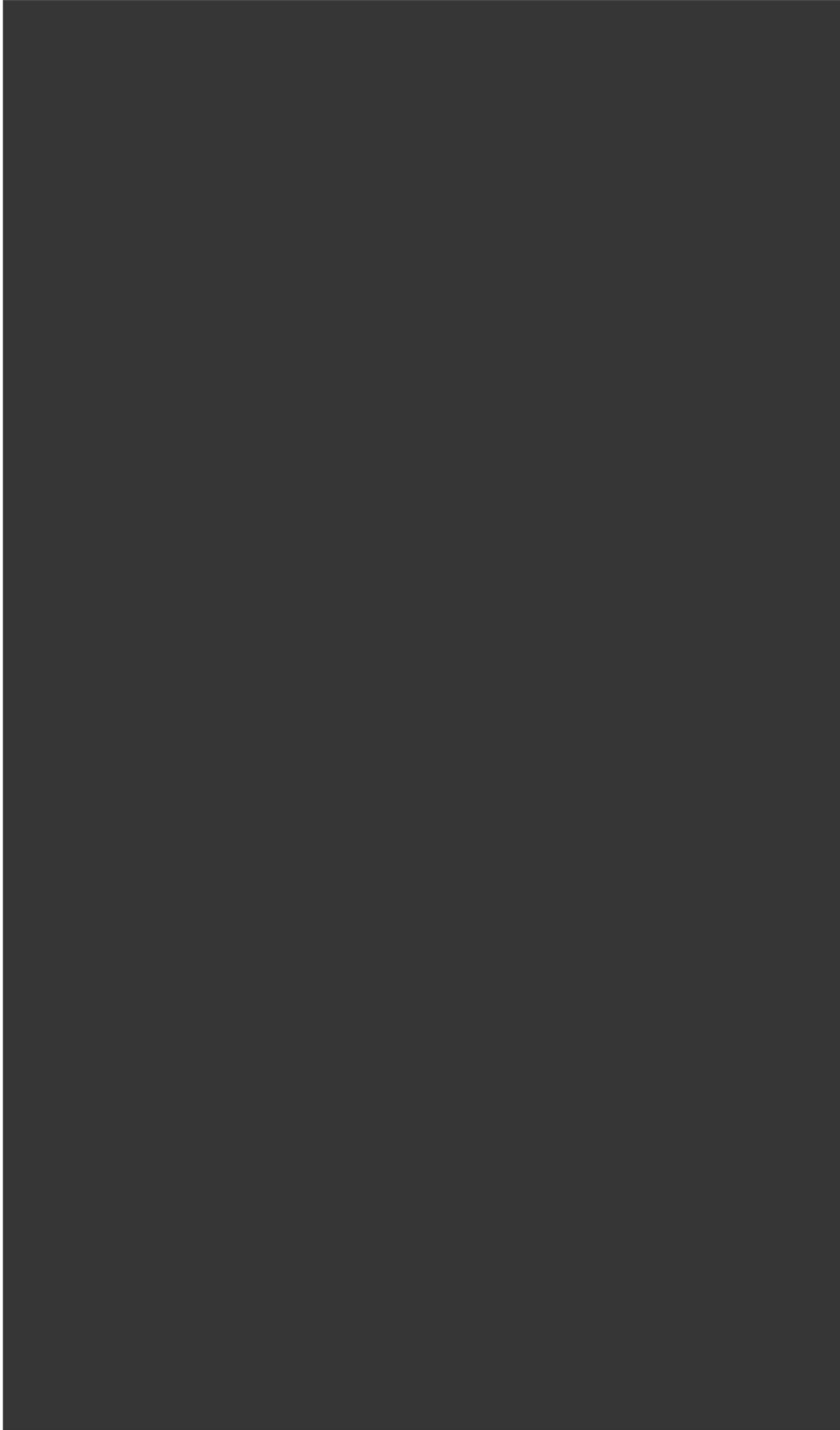
For example, the cost of a 2-bedroom apartment in Mangalore today would be Rs 75 lakhs. You can get a rent of Rs 16,000/- per month or Rs 1.92 lakhs per annum on this apartment. The rental yield therefore is: $\text{Rs } 1,92,000 / \text{Rs } 65,00,000 \times 100 = 2.56$ percent. This has to be compared with the yield on short-term bonds which is presently about 6 percent per annum. If you cannot easily ascertain the yield on short-term bonds, the interest rate on the 6-month fixed deposit of any major bank will be a good substitute. Clearly, purchasing an apartment in Mangalore for investment is lunacy.

Now take the example of a friend of mine who purchased a shop in Bangalore some time back for Rs 55 lakhs, including registration costs. This shop fetches him a rental of Rs 40,000/- per month. The rental yield is 8.73 percent. At the time he purchased the property, the yield on short-term bonds was 7.5 percent. It was still a superb deal.

Conclusion

In this article, the theoretical framework to think about two horizons of investment viz, equity and real estate is presented. A prudent investor should weigh the pros and cons of these two alternatives and decide the avenue which is best suited for him.

MODEL PORTFOLIO



References

Burton G Malkiel:

1. **The Random Walk Guide to Investing: Ten Rules for Financial Success**, (2003, publishers: W W Norton & Company)
2. **A Random Walk down Wall Street**, 11th revised edition, 2015, (Publishers: W W Norton & Company)
3. **The Elements of Investing** (co-authored by Burton G Malkiel & Charles D Ellis), Second Edition, 2013. (Publishers: John Wiley & Sons, Inc.)

Dr William J Bernstein:

1. **The Four Pillars of Investing** (Publishers: McGraw Hill)
2. **The Investor's Manifesto: Preparing for Prosperity, Armageddon, and Everything in Between** (First published 2010. Publishers: John Wiley & Sons, Inc.)

Roger C Gibson:

1. **Asset Allocation: Balancing Financial Risk**, 5th edition, 2013, McGraw Hill

Charles D Ellis:

1. **Winning the Loser's Game**, 6th edition, 2013 (Publishers: McGraw Hill)

Benjamin Graham:

1. **The Intelligent Investor**, 2003 revised edition, with commentary by Jason Zweig and an introduction by Warren E Buffett (Publishers: Harper Collins)

John C Bogle:

1. **Common Sense on Mutual Funds**, 2010 edition. (Publishers: John Wiley & Sons, Inc.)

Thomas J Stanley & William D Danko

1. The Millionaire Next Door: The Surprising Secrets of America's Wealthy

(Publishers: Pocket Books, a division of Simon & Schuster, Inc.)

Eric Tyson:

1. Personal Finance for Dummies, 7th Edition, June 2012.

Website: www.berkshirehathaway.com - for the investment philosophy of Warren Edward Buffett, mainly contained in his annual letters to shareholders.

A N Shanbhag & Sandeep Shanbhag:

1. In the Wonderland of Investment, 34th edition

(Publishers: Vision Books, Delhi)

2. In the Wonderland of Investment for NRIs, 16th edition,

(Publishers: Vision Books, Delhi)

3. Tax Payer to Tax Saver, 23rd edition (Publishers: Vision Books, Delhi)

Financial and Nonfinancial Impact on National Rural Employment Guarantee Scheme: A Case Study

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Abstract

This study measures the financial and non-financial effects of the NREGA scheme in Hebri Village Panchayat. Questionnaires and interview technique was used for this research to collect the primary data. This scheme was successful increasing employment opportunities and empowering rural women. It was also found that wages provided to the villagers are not satisfactory. Income gained from the scheme has been channeled into savings and investments in local cooperative banks. Agriculturists, labors and animal husbandry of Hebri have been benefited from the NREGA scheme.

Keywords : NREGA, Rural Unemployment, GDP, Poverty Eradication

Introduction

India being a biggest democratic country has a prominent place in world's financial system. Villages are the backbone of India. About 70 percent of India's population comes from rural areas. As Gandhiji once said "India's soul lies in villages". Even after a centenary his words still hold good in the present era. Developing villages will, therefore develop India in a reflex manner. In spite of rapid urbanization in our country, most of the population still lives in rural places. Due to historical reasons rural India is lacking necessary development. Reducing the gap between urban and rural is today's immediate necessity. India cannot become developed country until and unless there is fast pace of growth in rural India. Eradication of poverty, employment and development are co-related to one another. By creating employment opportunities in rural places, a biggest problem of unemployment in rural India can be reduced. Poverty removal programs have gained prominence since Independence.

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Devising a strategy on the basis of requirement of rural people, to a great extent the poverty, unemployment and inequality can be removed.

Agriculturists play a major role in contributing to our country's GDP. 'Mahatma Gandhi Employment Guarantee Scheme' focuses on financial betterment and social welfare of Rural India. This scheme helps the rural people in various ways such as maintenance of healthy environment in rural India, provision of infrastructural facilities etc. Reducing unemployment and increasing employment opportunity will increase financial stability and pave a way to social stability in rural India.

According to (Contributors, 2013) India has more than 50 percent of its population below the age of 25 and more than 65 percent below the age of 35. It is expected that, in 2020, the average age of an Indian will be 29 years, compared to 37 for China and 48 for Japan. There is no doubt in the fact that proper utilization of youth potential will develop India in the coming years. From this point of view, this study gets significance.

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme endeavors following objectives:

1. Providing 100 days of wage employment and security in every fiscal year to every household whose adult members volunteer to do unskilled labor.
2. Giving information regarding properties that are used for long term.
3. Strengthening the lives of rural people by showing them the right way.
4. Empowering rural women and avoiding their immigration.
5. Guaranteeing a person from each family is employed and gets daily wages.
6. Providing employment to those who are eligible and can perform any physical works which are non technical in nature.
7. Priority is given to people who are having BPL card.

Working details of the scheme

The key process in the implementation of NREGA involves the following steps;

Step 1: Adult members of rural household submit their name, age and addresses with photo to the Gram panchayat

Step 2: The Gram panchayat registers households after making the enquiry and issues a job card which contains the details of the adult member enrolled and his/her photo.

Step 3: Registered persons can submit an application for work in writing (for at least fourteen days of continuous work) either to the Gram panchayat or to the programme officer.

Step 4: The Gram panchayat / program offices will accept the valid application. A letter providing the details of the allotted work will be sent to the applicant and a copy will also be displayed at the Gram panchayat office

Step 5: The employment will be provided within a radius of 5 km and if it is above 5 km extra wage will be paid.

Step 6: If employment under the scheme is not provided within 15 days of receipt of application, a prescribed daily unemployment allowance will be paid.

Statement of the Problem

Eradication of poverty, enabling employment opportunities and infrastructure facilities in rural India are the main challenges that must be overcome. Reorganizing the financial and social system in rural India is gaining importance recently. This study is mainly to measure the fruitfulness of the scheme and its financial and non-financial impact on rural India in order to reduce the unemployment rate. The main objective of this research is to see how far this scheme has been utilized by rural people to uplift their standard of living socially, financially and educationally. It also includes to study whether the migration rate from rural to urban places has reduced drastically over the years. The present paper makes an in-depth study of these problems

Objectives of this Study

1. To study the effect of this scheme on financial stability of rural people. E.g.: Annual income, standard of living
2. To access non financial implications on education, social, health and status of people in the village.
3. To analyze the contribution of this scheme in rural development.
4. To study the level of empowerment provided by this scheme locally.
5. To find out in what way has this scheme helped in the development of rural families.

Review of Literature

Ministry of Agriculture Department was established in December 1871 and was extended to all provinces in India. Agricultural research center was established in Bihar in the year 1905. In spite of all these efforts rural areas remained neglected and divided.

On the recommendation made by Royal Agricultural Committee in 1928, Imperial council of agricultural research was established in 1929. Now it is well known, as Indian Council of Agricultural Research.

According to (Goswami, 2013), NSSO data indicates that there has been a negative trend in labour force participation in agriculture since 2004-05. (Ricketts, 2013) In 2005, the Government of India passed the National Rural Employment Guarantee Act (NREGA). Goswami also stated that Majority of the work, nearly 60 to 70 percent person days in 2010-11 and 2011-12, under the rural employment scheme is generated during the lean agriculture season. The fact that NREGA allows for work to be taken up on private land of individual beneficiaries and hence, could play a significant role in raising the productivity of small and marginal farmers, "who will then be able to return to farming and will no longer need to depend on the MGNREGA for survival." The minister has described this segment as "untapped potential" In 2012-13, 12 percent of NREGA works were taken up in private lands.

Hirway stated that a large proportion of labor depends on agriculture which has low productivity, is highly unstable, with wide fluctuations in agricultural incomes in most regions and has experienced a poor rate of growth around 2 percent, in the last decade. She also opined that most small and marginal farms are unviable in the sense that they are not able to make net profits from crop cultivation and / or are not able to generate enough income for the survival of their families. Majority of the poor are located in this sector, i.e. in agriculture, forestry, animal husbandry, fishery etc. Among other things, high investments in land and water management are urgently needed in agricultural infrastructure for agricultural growth, poverty reduction, diversification in agriculture and also for diversification of workforce in to productive non-agriculture sector (Hirway, 2007).

In theory, Deininger,(2013) stated that MGNREGS employment can directly benefit house-hold in three ways. Transfer effects increase participants' income either by offering higher wages than what would have been received from other forms of employment or by providing employment in times when participants would otherwise be unemployed. Income gained from MGNREGS employment can also be channeled into savings and investments, which will allow households to be more resilient to economic shocks in the long term. Finally the program supports some small scale works on participants' own land, which means that participation in MGNREGS has the potential to increase a household's agricultural productivity by increasing investment on marginal lands.

The dynamics of the scheme in view of the fast-changing rural India, which has been undergoing major transformation in terms of agricultural practices, employment preferences and aspirations of the youth" Increased migration to urban areas, shifting to non-farming opportunities, and adaptation of lifestyles similar to that of urban areas have impacted the manner in which MGNREGA finds acceptance in rural areas" (TNN, 2013).

As per (Times, 2013)NREGA has been instrumental in raising wages across rural India, by acting as the floor wage that employers must better, in order to get workers. Rural wages have been on a roll these

past seven years, rising continuously in real terms, thanks to diversification of the economic structure and helped along by the NREGA wage acting as the floor. One consequence has been to raise rural living standards. Another has been to raise farm production costs, leading to food inflation.

Methodology

Target Population and Sample Size

The target population selected for the study is from Hebri village of Karkala Taluk in Udupi district. Sample size is 17 respondents. Due to time constraint it was not possible to include whole district. Therefore Hebri village panchayat area has been selected for our research. Questionnaires were distributed to 50 beneficiaries of the scheme, out of which 17 have responded.

Method of data collection

Data has been collected using questionnaires, which have been drafted carefully. It has covered different parameters that will measure the level of benefits that rural people are receiving. Questions are simple, straight forward and easy to understand and comprehend.

Sources of Data

1. Primary

- a. Questionnaires
- b. Interviews

2. Secondary

- a. Village records
- b. Essay/ Articles
- c. Study Reports
- d. Ministry and departmental information
- e. Books
- f. Newspapers

Method of processing and analysing

On data being gathered from primary and secondary sources, statistical techniques which are deemed relevant to the nature, type and purpose of the study have been used for analysis. The analysis has been done using Microsoft Excel or SPSS for inferences and interpretation.

Profile of the Village Panchayat

Udupi is a town in the South-West Indian State of Karnataka. Hebri is a small town in Udupi district, Its geographical spread is 3575 square km which includes Udupi, Kundapur and Karkala. Hebri is at the foot of the Western Ghats in Karnataka state. It is famous as state's largest rice production centre. The place is of full scenic beauty with evergreen forests the area gets highest rainfall across the year. The economy of Hebri is mainly dependent on agriculture Rice(Paddy), Areca Nut, Coconut, Cashewnut, nowadays rubber are main crops grown in this area.

People from Mangalore, Bangalore and costal Karnataka prefer the rice produced at due to its high quality. There are many cashew processing industries in Hebri. Not less than 2,000 girls are employed in these industries. Even though it is a village, it is well known for its resources.

Table No. 1 : The population details of the Area of study

Population	10.257
Households	2.200
SC	363
ST	1116
Cultivators	1172
Agriculturists	1259
Non-Agriculturists	1072
Literate	5366
Total Villages	08

Source : *Compiled from different sources*

Table No. 2: Details of Families registered under this scheme

SC	08
ST	86
Others	244
Total	338

Source : *Compiled from different sources*

- Employment Card distributed in this scheme
338(755 members has been provided with employment)
- Total employed man days provided under this scheme 8573

Table No. 3: showing the details of employed men days

SC	09
ST	1362
Others	7202
Total	8573

Ladies:3059

Gents :5514

Source : *Compiled from different sources*

- Number of Households that completed 100 days under this scheme : 04

Present Study

Analysis of the present study is made on the basis of data obtained from the sample size using questionnaire and primary sources of data.

Table No. 4 : Gender Classification

Gender	Beneficiaries	Percentage
Male	11	64.71
Female	06	35.29
Total	17	100.00

Source : *Compiled from different sources*

Interpretation: The above table presents that 64.71 percent of respondents were male and 35.29 percent were female. From this it

can be inferred that majority of the participants in the scheme belong to 'male' category. Female participants are just around half of the male participation. It means the scheme benefits are male dominated.

Table No. 5 : Languages used in the Area of study

Language	Male	Female	Total
Kannada	10(58.82%)	7(41.18%)	17(100%)
Tulu	9(52.94%)	6(35.29%)	15(88.23%)
Konkani	00	00	00

Source : Field Survey

Interpretation: The above table reveals the data on the languages spoken by the respondents. It is understood that Kannada is spoken by all the respondents and Tulu is spoken by 88.23 percent of the sample.

Table No. 6: Age Group classification of Respondents

Beneficiaries	20-29	29-39	39-40	Total
Male	4(23.53)	3(17.65)	3(17.65)	10(58.83)
Female	00	2(11.76)	5(29.41)	7(41.17)
Total	4(23.53)	5(29.41)	8(47.06)	17(100)

Source : Field Survey

Table No. 6 classifies the respondent on the basis of age group. 23.53 percent of the respondents are in the age group of 20-29 years. 29.41 percent respondents are in the age group of 29-39 and majority of the respondents (47.06 percent) are in the age group of 39-40. We can infer that there is less percentage of youth availing the benefit from the plan.

Table No. 7: Cards owned by Beneficiaries

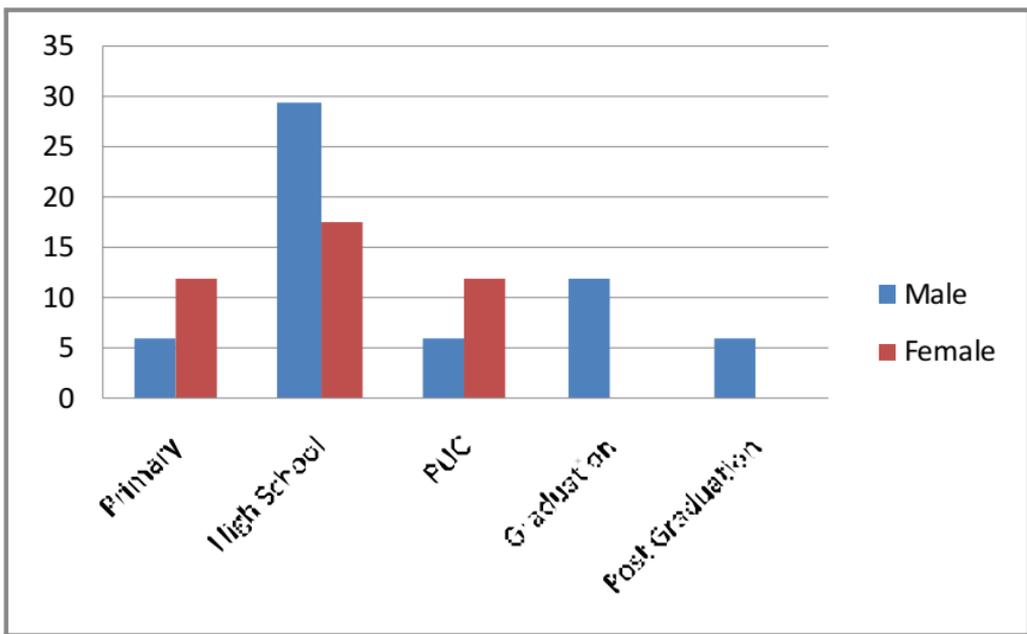
Beneficiaries	Categories		
	APL	BPL	Total
Male	1(5.88%)	9(52.94%)	10(58.82%)
Female	2(11.76%)	5(29.41%)	7(41.17%)
Total	3(17.65%)	14(82.35%)	17(100%)

Source : Field Survey

From the Table No. 7, we can see that 52.94 percent of males come under BPL category and 29.41 percent of females in BPL. Percentage in APL category is 5.88 percent in males and 11.76 percent in females. Only 17.65 percent people own APL card which shows the level of poverty in rural areas.

One of the objectives of the scheme is to provide employment and there by to increase their earnings. BPL card holders are the people who have low income. As per the table, the majority of the beneficiaries are under poverty line. It indicates that the scheme has helped the needy of to a great extent.

Figure No. 1: Educational Classification



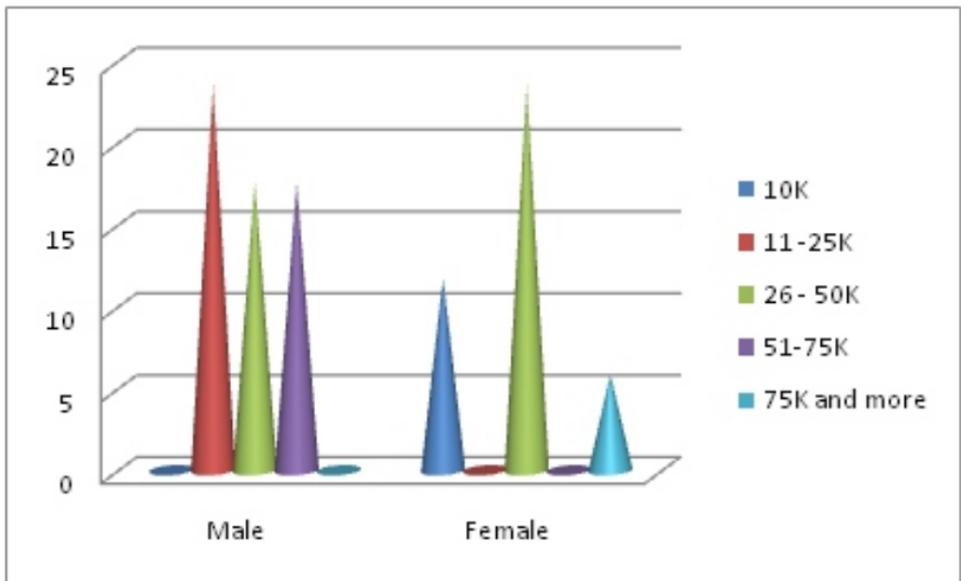
From the above chart we can understand that 47.06 percent of people have completed high school and the 17.65 percent have completed primary and secondary. 11.76 percent holds a degree and 5.88 percent only of respondents are post graduates. We can infer that Most of the respondents have passed high school.

Table No. 8: Occupational Categories

Occupation	Beneficiaries		
	Male	Female	Total
Farmers	8(47.06%)	4(23.53%)	12(70.59%)
Animal husbandry	2(11.76%)	4(23.53%)	6(35.29%)
Labour	8(47.06%)	5(29.41%)	13(76.47%)
Employee	1(5.88%)	-	1(5.88%)

Source : Field Survey

The above table has categorized the respondents on the basis of occupation. About 76 percent of the respondents are labourers, 70 percent of the respondents are farmers

Figure No. 2: Annual Income

From the above chart it can be seen that 23.53 percent of male respondents have income level between 11 and 25 K. 41.7 percent of the respondents have income between 26-50 K. The percentage of male respondents who earn an income of 51 to 75 K is 17.65 percent. While 11.76 percent of female respondents income is 1-10 K, 5.88 percent female respondents come under the income group of more than 75 K. This analysis brings out the fact that majority of the respondents have their annual income in the range of 26-50 K.

Table No. 9: Respondent Information on Property and employment

Property & Employment	Respondents		
	Yes	No	Total
House	16(94.12%)	1(5.88%)	17(100%)
Furniture's	15(88.24%)	2(11.76%)	17(100%)
Complete Employment	0	17(100%)	17(100%)

Source : Field Survey

Table No. 9 shows that 94.12 percent and 88.24 percent of respondents own Houses and Furniture whereas 5.88 percent do not have house and 11.76 percent are without furniture. In other words out of 17 respondents, 16 respondents have their own houses. Regarding owning of furniture out of 17 respondents 15 respondents own furniture. None of the respondents has any employment.

Table No. 10 : Extent of Properties Owned

Property	Extent of Property				
	1 Acre	2 Acre	3 Acre	No	Total
Land	7(41.17%)	3(17.65%)	2(11.76%)	5(29.41%)	17(100%)

Source : Field Survey

The above Table shows the properties owned by the respondents. Majority of the respondents (41.17 percent) own 1 Acre of Land. 29.41 percent of the respondents do not own any land. However 17 percent and 11 percent of the respondents own 2 acre and 3 acres of land respectively. We can infer that - about 70 percents of respondent own properly.

Table No. 11: Details of Gold owned

Property	Quantity percentages				
	10 gm	20 gm	50 gm	No	Total
Gold	4(23.53%)	4(23.53%)	4(23.53%)	5(29.41%)	17(100%)

Source : Field Survey

From the above Table we see that 29.41 percent of people do not own gold. 23.53 percent beneficiaries own from 10 to 50gms of gold which clearly shows the poverty level in Hebri.

Based on the above table 12 beneficiaries 70.59 percent of people consume type B food, 4 beneficiaries take 23.53 percent and one member take 5.88 percent of type 'B' food.

Figure No. 3: Registered Year

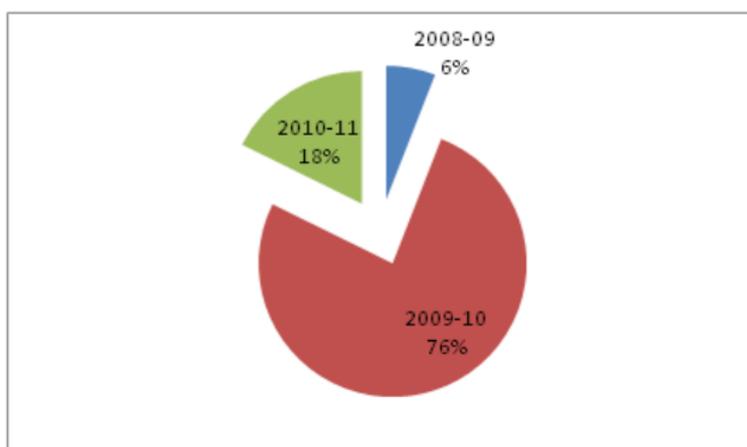


Figure No. 3 depicts that most of the respondents (76 percent) have registered under this scheme in Hebri Panchayat in the year 2009-10 as compared to 6 percent in the year 2008-09. The progressive percentages of registered beneficiaries indicates the popularity and usefulness of the scheme to the rural areas.

Table No. 12: Sources of Information

Source	Beneficiaries
Newspaper	Nil
Panchayat	17(100%)
Relatives	Nil
Others	Nil
Total	17(100%)

Source : Field Survey

The above Table shows that the Hebri Panchayat is the only source from which the beneficiaries got information. Generally panchayats publish the availability of the scheme through notice boards or convey the message to the residents through sub staff of the Panchayath.

Table No. 13 : Bank Account

Savings	Beneficiaries
Bank	17(100%)
Post Office	No
Total	17(100%)

Source : Field Survey

This shows that each and every member has opened a bank account for savings purpose which shows that people are aware of the banking transactions. Savings in Post office are nil

Table No. 14: Income generated from this scheme

	Income level						Total
	4000	5000	6000	8000	10000	20000	
Beneficiaries	2 11.76%	2 11.76%	1 5.88%	7 41.17%	4 23.53%	1 5.88%	17 100%

Source : Field Survey

From the above Table, it can be observed that less than 41.17 percent of the respondents are getting income of Rs. 8000; 23.53 percent of respondents are earning income of RS. 80,000. About 28 percent of respondents are earning income of 6000 or below. Only 5.88 percent of the respondents are earning income of Rs. 20,000.

Findings, Suggestions

We have used questionnaire and interview method to collect information from the benefiteres of NREGA, organizations in Hebri and also consulted experts for their opinion; based on it can concluded as under:

1. The study highlights that 85 percent of respondents are BPL card

- holder that show that majority of the respondents benefiting from the scheme are below poverty line.
2. Women (homemakers) too are happy to have benefited from this scheme. This shows women empowerment.
 3. All categories of people including primary, secondary, higher secondary and graduates or for that matter illiterate too have benefited by registering their name under this scheme.
 4. People getting an advantage from employment guarantee scheme are Agriculturists, labors, and animal husbandry.
 5. This scheme must also provide wages to agriculturists growing paddy, ragi, jower and cereals.
 6. Swasahayasangha and Village Panchayat have played a major role in creating awareness about NREGA program.
 7. Local co-operative banks have helped in opening a bank account for all registered households thereby enjoy all facilities provided by the bank like loans, education loan, deposit etc. Surprisingly most of them hold a share in these banks.
 8. Beneficiaries are of the opinion that wages earned under this scheme has helped them in repaying the loans, repairing their houses, toilets and also some felt that it is useful for their childrens' education.
 9. Experts and interviewers felt that "This scheme has played a major role in Rural development as Oxygen is for breathing"

Suggestions

- 1) Only Gram Panchayat has played an active role spreading the information about the Scheme. Government should make use of Newspaper and radio channels to create awareness.
- 2) Wages should be timely increased based on inflationary rates.
- 3) Mid-day meals should be provided to the workers to enable them to work more.

Conclusion

In making India a developed nation both rural and urban people must be considered equally responsible for their contribution to development. To achieve rural development financial stability is the basic root cause. Financial independence is also an utmost necessity. Employment to all households will make them financially stable. By empowering villagers their talents and ability can be showcased which in turn develops India financially and socially. Therefore total utilization of village folks is the present necessity. National Rural Employment Guarantee Scheme will help us in achieving this goal.

References

Contributors, W. (2013, December 19). Demographics of India. Retrieved December 27, 2013, from The free encyclopedia: http://en.wikipedia.org/w/index.php?title=Demographics_of_India&oldid=586789762

Deininger, Y. L. (2013). Welfare and poverty impacts the mahatma gandhi rural employment guarantee scheme. IFRI, 1-20.

Goswami, U. A. (2013, February 14). Nrega has positive impacts. The Economic Times, pp. 2-3.

Hirway, I. (2007). NREGA: A Component of full employment strategy in India. Center for Development Alternatives, 1-28.

Ricketts, K. (2013). Welfare and poverty impacts of India's national rural employment guarantee act: evidence from Andhra Pradesh. 1-20. Times, T. E. (2013, November 28). Link Nrega wages to a realistic CPI. The economic Times, pp. 2-4.

TNN. (2013, December 17). No transparency in nrega implementation. The Times of India, pp. 1-3.

Corruption and Corporate Corruption

* Mr. Nama Nishtha Das

Abstract

India has one of the highest percentages of corruption. In spite of our governments various steps in its fight against this great menace, corruption continues to exist in various organisations - private as well as public. In this paper the various aspects of the concept of corruption with a reference of corporate corruption has been discussed.

Keyword : *Corruption, Corporate Corruption, Government Subsidies*

Introduction

Good Governance and Anti corruption are the two major issues that have high priority in the development process of Indian Economy. Our prime minister often talks about tamping down on corruption in India, but a recent report shows that it remains pervasive. In these days, the public awareness about the detrimental impact and severity of the problem have increased considerably. The media, policy institution and non governmental organisations have raised concerns over the unprecedented level of this menace. In view of the mounting evidences and increased awareness, the government is struggling to tackle the issue through various actions and measures.

India has one of the highest percentages of corruption. In India, corruption is prevalent not only in various sectors such as public services, police, public procurement, education etc., but also prevalent at various levels of our organisations. Regarding corporate corruptions also India has one of the highest percentage, fraud - particularly corruption and bribery has been the common form of corporate corruption in India. At global level 25 percent of respondents from India said that they had come across different types of fraud, which included corruption, bribery and stealing of proprietary information among other things. In comparison, only

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around 18 percent of Chinese executives, 20 percent of Russian executives said that they had encountered such types of fraud.

Meaning and Types

Corruption, derived from the latin word, 'corruptus', literally means to destroy. The act of corrupting or making putrid, or state of being corrupt or putrid; decomposition or disorganization, in the process of putrefaction, deterioration. Or in other words, it is the act of changing, or of being changed, for the worse; departure from what is pure, simple, or correct; as, a corruption of style; corruption in language.

It means impairment of integrity virtue or moral principles. It could also mean using public or government property for personal greed or needs.

The types of Corruption are as follows

- 1) Political Corruption
- 2) Data Corruption
- 3) Police Corruption
- 4) Educational Corruption
- 5) Corporate Corruption

Political Corruption

It is the malfunctioning of a political system or institution in which politically elected officials seek illegitimate personal gain through actions such as bribery, extortion cronyism, nepotism, patronage, graft, and embezzlement. Many famous cases are in front of us for example P. M. of Israel, Natvar Singh etc.

Data Corruption

Data Corruption means copying data and publishing it on internet or in books without author permission. Now a days Privacy is one of the most talked about. Free distribution is one of the solution to it but company needs money for its operation and so free is not method in this corporate world.

Police Corruption

Police officers accepting bribes in exchange for not reporting organized drug or prostitution rings or other illegal activities. Another example is police officers ignoring the police code of conduct in order to be fully able to catch suspects (for example using forged evidence). Another, very rare, example would be police and other government entities deliberately and systematically participating in organized crime themselves.

Educational Corruption

This form of corruption includes -

- Leakage of question paper
- Bribing the examiner
- High donation for merit seats.
- Producing fake or false certificate
- Changing caste certificate for reservation.

Corporate Corruption

There has been much discussion of corruption in the corporate sector of many developing countries. It was inevitable corruption of public servants that, in part, made it important to privatize in developing countries. Advocates of privatization also lauded the private sector's ability to compete. As these private sector advocates quite had in mind the abilities that American corporate capitalism has demonstrated recently.

They put to shame those petty government bureaucrats who stole a few thousand dollars or even a few million. The numbers bandied about in the Enron, WorldCom and other scandals are in the billions, greater than the GNP of many countries.

Reasons for Corruption

High standard of living : Natural human tendency to desire more than that can be afforded and try to satisfy these craving by illegal means.

Low salary : Some people working in government sector have low salaries and hence they resort to various illegal means for quick

money.

Bad Government System : The vigilance system of the government is inefficient so people holding officers of power easily abuse their positions.

Addiction: Crave for more money to satisfy their urge for intoxication. Consequently they get into the trap of the corruption world which provides them with handsome full of money to quench their thirst for gambling and intoxication.

Dowry : Prominent in Rural India and to some extent in civilized urban areas. The bride's family is forced to pay large amount of money and also jewels. This forces many people to resort to corruption in form of accepting bribes etc.

Inflation : Corporate staff may involve in corruptions to meet the increasing prices due to inflation prevailing in the country.

Greed : Some people are greedy, by birth. No amount of wealth satisfies them. Greed for money, jewellery property etc forces them to indulge in corruption.

Case Studies

Stamp Paper Scam

Telgi got the idea of printing fake stamp papers and selling them to public. These denominations range from Rs. 10 to Rs. 1,000. The quality of fake stamps coming into the market was as good as the originals and the people were easily fooled.

Over 1,200 hours of his phone conversations secretly taped by the Karnataka police while he was in jail. The former Mumbai Police Commissioner RS Sharma was the highest-ranking police officer accused in the Rs. 3,000 crore scam.

A Samajwadi Janta party legislator, Anil Gote, was arrested in connection with the case. C. Krishna Yadav, an MLA of the ruling Telgu Desam party was arrested on grounds on demanding bribe from Telgi

Out of the 50 accused in the case, 37 were policemen.

S. K. Dubey Murder Case

Satuendra Dubey, an IITian worked at the Ministry of Surface Transport in Delhi Indian Engineering Service (IES). India's top engineering bureaucracy, In July 2002 he was employed by the National Highway Authority of India (NHAI). Dubey became the Assistant Project Manager at Koderma, Jharkhand, responsible for managing a part of Aurangabad-Barachatti section of National Highway (The Grand Trunk Road)

Dubey discovered that the contracted firm, Larsen and Turbo, had been quietly subcontracting the actual work to smaller low-technology groups, controlled by the local mafia. At Gaya, he exposed large-scale flouting of NHAI rules regarding subcontracting and quality control.

Despite a request to the authorities that his identity be kept secret as its sensitive content that pointed fingers at some of his superiors, the letter along with bio-data was forwarded immediately to the Ministry for Road Transport. He was murdered. He lost his life due to corruption....

ENRON

Enron Creditors Recovery Corporation (formerly Enron Corporation, former NYSE ticker symbol ENE) was an American energy company based in Houston, Texas. Before bankruptcy in late 2001, Enron employed approximately 22,000[1] and was one of the world's leading electricity, natural gas, pulp and paper, and communication companies, with claimed revenues of nearly \$101 billion in 2000[2] Fortune named Enron "America's Most Innovative Company" for six consecutive years. At the end of 2001 it was revealed that its reported financial condition was sustained substantially by institutionalized systematic, and creatively planned accounting fraud, known as the "Enron scandal." Enron has since become a popular symbol of wilful corporate fraud and corruption. The scandal was also considered a landmark case in the field of business fraud and brought into question the accounting practices of many corporations throughout the United States.

Enron filed for bankruptcy protection in the Southern District of New

York in late 2001 and selected Weil, Gotshal & Manages as its bankruptcy counsel. It emerged from bankruptcy in November 2004 after one of the biggest and most complex bankruptcy cases in U. S history. On September 7, 2006. Enron sold Prisma Energy International Ltd. Following the scandal, lawsuits against Enron's directors were notable because the directos settled the suits by paying very significant sums of money personally. The scandal also caused the dissolution of the Arthur Andersen accounting firm, affecting the wider business world [3]

Marion's Scandal

Marion Jones was apprehended in a dope scandal.

- Resulted in a six month imprisonment
- Stripped off five Olympic medals
- Forced to retire from athletics

Right to Information Act - Law enacted by the Parliament of India giving citizens of India access to records of the Central Government and State Governments.

Under the provisions of the Act, any citizen may request information from a "public authority" which is required to reply within thirty days.

Every public authority to computerise their records for wide dissemination and to proactively publish certain categories of information. Law passed by Parliament - 15 June 2005. Came into force -13 October 2005.

Solutions

- Strict punishment for those found guilty of corruption
- Cultivating an attitude of simple living and high thinking. Mostly corrupt people are already having salary so they should learn to live within the means honestly. Real happiness and unless people are exposed to the culture of spiritual life they will be mad after material pursuits and for this end they will be corrupt to any level
- Anxiety caused by corrupt practices will not only kill our

mental health but also spiritual well being. With a disturbed mind we cannot concentrate on anything. Fear of being caught and the news of that becoming known to all our well wishers will not allow us to sit peaceful for a minute.

- It is difficult to digest corrupt money. This easy money kills in the children spirit to work hard. Often this money leads to vices.
- Very good systems designed by govt so that corruption is minimized. Private institutions do not allow their employees to loot them. So why govt cannot have similar good systems in place.

In addition to the above, the following remedial measures also go a long way in reducing, if not preventing, corruption, corporate corruption.

1. Paying civil servants well

If public sector wages are too low, employees may find themselves under pressure to supplement their incomes in unofficial ways. So, pay the civil servants well.

2. Transparency in Government Schemes

Creating transparency and openness in govt. spending subsidies, tax exception, public procurement of goods and services, soft credit, extra budgetary funds under the control of politicians - all are elements of various ways of managing public resources by the government. Government collects tax, tap the capital market receives foreign aid, to allocate these resources to satisfy a multiplicity of needs. The more open and transparent the process means less opportunity for corruption and bribe

3. Cutting the red tape

There is high correlation between incidence of corruption and the extent of bureaucratic red tapism. There is a need to eliminate many needless regulations, Laws and Programmes that breed corruption while safeguarding the essential regulatory functions of the state.

4 Replacing by regressive and distorting subsidies with targeted cash transfers.

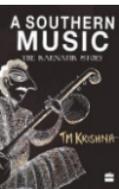
Subsidies are another example of how government policy, can distort incentives and create opportunities for corruption. There is a need to replace expensive regressive subsidies with targeted cash transfers.

5. Deploying smart technology

The frequent direct contact between government officials and citizens can open the way for corruption, bribery and these illicit transactions. One way to reduce this problem is to use readily available technologies like internet and online platforms and keep an arms length relationship between officials and civil society.

Conclusion

There is an urgent need to combat corruption, which is prevailing in almost all organizations at various levels. In addition to the above measures implementation of citizen charter with accountability and time bound actions by the government will limit corruption to a great extent. Limiting powers of the elected politicians in terms of bribing voters through ill conceived social scheme such as MNREG and unnecessary subsidies will also be of effective measure to combat corruption. More than anything the people of the country need to develop a sense of moral character starting with individual, family and society as a whole.



A Southern Music: The Karnatic Story

Author : T M KRISHNA

Publisher : HarperCollins Publishers India, 2013

Price : Rs.799 Pages : 588

*** Prof. Balakrishna H**

This is really a remarkable book written by a brilliant artist. The experience and philosophy of a committed musician has brought authenticity to the saga of creativity discussed in the book. Academic discipline in the analysis of the importance of experience, context and history of art experience provides the strong framework to the book. The twenty seven chapters spread across 560 pages and the Bibliographical details and Index prove that this is a classic work under taken by a true research scholar.

Vidwan T M Krishna is well known name in Karnatik Music. His concerts have won the appreciation of many and a few apprehensions also, for the creativity in him wanted to broaden the conventional framework of a concert. The rationality of his creative thinking is being shared in this book. The headings of the first three chapters - Music: A Narrative, The Intent of Music and Imagination, Creativity, Improvisation, respectively – set the tone of the whole book. These three chapters also provide a strong foundation to the art related discussion in the book. For example - T M Krishna opines on the tradition like this : “Tradition is not a repetitive act; it is change that retains within it the essential threads that define the whole.” [Pp 11-12]. At the same time he acknowledges, “Conventions are also generated due to social, religious and political influences , necessitated by the need for acceptability within a context.” Therefore, he argues that various arts interact with tradition, individuals, socio-political milieu. Thus, he undoubtedly convinces the reader about the need to redefine the intent, imagination and creativity in art.

In page 38, he explores the complex relationship among experience, understanding, skill and creativity and confesses –“...life as a whole

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is a stimulus for creativity.”[pp 38]. This holistic approach towards art itself is the unique feature of T M Krishna that distinguishes him from the other artists. Another very interesting observation is that whatever he observes about creativity in music is also true about other forms of art. Thus, the intent of this book, especially the first three chapters, goes beyond Karnatik music and it embraces all the art forms in the world. Those who are interested in any one of the art forms must study these chapters to hone and improvise their ideas.

TMK seem to be revolutionary when he writes, “Our perception of folk art is purely social and is class-based.”[pp 21]. But it is the observation of a creative artist who has studied anthropology and who has understood the complex relationship between the evolution of both -mankind and art. As a result, he advises, “A superficial observation of these arts would lead us to untrue and simplistic conclusions” [pp 31]. To give justice to the reading of this book, we need to understand the intricacies involved in the concepts, such as imagination and creativity. If so, this book can certainly lead us towards new vistas of thoughts.

Chapter 4 onwards the Fundamentals of Karnatik Music such as : Svara, Gamaka, Raga, Time, Tala, evolution of musical compositions, various forms of compositions, historical perspectives on the structure of concerts, details of music festivals/Sabhas are discussed. He also elaborates about the myths such as cast, religion, language, nationality which are claimed to have a significant role in internalizing nuances of Karnatik Music [which could be true with other art forms also].

In the Book-2 “The Context”, TMK relates Music with other forms of art in the present scenario. He even discusses the role of technology in promoting the interests of Music. The interesting observation about this book is that it denies all the “ivory tower” concepts and makes the art more centered around ordinary human activities. In the last part Book-3 “The History”, TMK traces the history of Music from Bharatha's *Naryashastra* up to present day. Here various stages of development, contribution of eminent composers, adaptation of western musical instruments into Karnatik Music, status of Music under various rulers in India, fine distinction between *Marga* and

Desi, etc., are discussed. The lucid language, symbolic style, sharp and focused analysis and convincing argument in the book demonstrate that the writer has exploited the aesthetics of the language to its fullest extent. All in all, it could be said that the book is a long narrative, meditation and intuition on the Art/Music related issues. Both in content and form this is a torch-bearer kind of work that pleads us to explore the unexplored corners of creativity and art. In the last paragraph of the book TMK requests the reader, to “...agree, disagree, argue, fight, battle with the ideas here, but a fellow seeker” but not to keep quiet. Thus the book demands a serious attention from the art-loving readers.

Throughout the book TMK acknowledges the original sources/references and provides a detailed bibliography for the benefit of the interested readers. It is not an exaggeration if one considers that this is an important book in the world of music and art that elevates the readers to the heights hitherto unknown. Because of all these reasons it could be claimed as a “must read” book.