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EDITORIAL

Economic Growth, Poverty and Inequality-Trend in Indian Economy

Baidyanath Misra

The economy of India has performed well on the growth front. During 10th plan, the growth rate was about 7.8 per cent per year. In the first 4 years of the 11th plan, the growth rate was higher than 10th plan, about 8.5 per cent per year. But in the last year, it came down to 6.9 per cent due to the impact of recession in the USA and European countries. Subsequent years seem to be uncertain. Since the crisis in European countries has deepened, India may not escape some of the adverse repercussions of these countries. In a globalized economy, no particular country can furrow an independent line of development neglecting the impact of other allied countries. In spite of these recent setbacks in the field of fiscal deficit, depreciation of rupee in relation to dollar, increase in foreign debt, continued inflationary spiral particularly of food grains and adverse impact on foreign trade leading to almost a crisis in balance of payments, it can be said that India's performance is still better than many other developed and developing countries except China. This does not mean we should have any complacency in our effort to change the economic structure.

What we see further, because of economic growth and increase in per capita income, there has been some decrease in the level of poverty in India. Whenever there is increase in growth, income increases and since poverty is considered on the basis of consumption, there is some decrease in poverty. The Planning Commission has accepted the methodology of Tendulkar Committee. Even though there are a lot of other definitions of poverty which are different from Tendulkar Committee, we accept for the time being the income and consumption level of poverty as analysed by Tendulkar Committee. On that basis, poverty in India has been reduced from 45.3 per cent in the year 1993-94 to 37.2 per cent in 2004-05 and further to 32 per cent in the year 2009-10 (Tentative). One pertinent question which is raised by many scholars: 'Why has poverty not reduced in the same proportion as the rise in income? This question has many aspects. We can only mention here a few points for the sake of illustration. First poverty is not reduced in the same proportion as per increase in per capita income. For example, one per cent increase in per capita income was accompanied by 0.44 per cent reduction in poverty during 1993-94 and almost similar 0.149 per cent during 2004-2010 due to the fact that incremental income was distributed more unequally among different sections of the community (T.S.Papola). Another factor which is also responsible for the lower reduction in poverty is jobless growth, more or less during 1993-94 up to 2000-2008. Papola, who has made a lot of study in this field

also points out that during the period of 1993-94 and 1999-2000, the increase in employment, was only one percent. During the period 2000-2008, increase in employment was a little more than the previous period, it was 2.2 per cent, but not very productive. Against 8.5 per cent rate of growth, employment elasticity was very low during this period, and gradually reduced further from 0.53 per cent to 0.26 per cent. Without increase in employment, there is no scope for providing income to the labour force and therefore, aggregate increase in income cannot substantially reduce poverty.

While poverty was reduced to some extent with the increase in rate of growth there was no decrease in inequality. On the other hand, inequality increased much more than reductions of poverty. For example, as per Human Development Report of 2004 the richest 20 per cent of the people in India were securing more than 50 per cent of GDP whereas the poorest 20 per cent were getting only 9.2 per cent of GDP. Again one NCAER study indicates that the income of the richest 20 per cent increased further to 53 per cent, whereas the income of the poorest 20 per cent was reduced to 6.1 per cent of GDP in the year 2009-10. This shows, in spite of increase in GDP growth and some reduction of poverty, there was no improvement in the economic condition of poor people. Simon Kuznets had pointed out that in the initial phase of development; a developing country faces such catastrophe. Economists also point out that in spite of higher growth rate in China in recent years, inequality is found to be much greater than that of India. But it has been observed in South Korea that economic growth did not increase as much inequality as in India or China.

The major reason for which inequality was aggravated in India is because of the fact that since about 1980, India's political economy has become pro-business, which helps explain the forces that are simultaneously generating higher rates of economic growth and widening inequality (Atul Kohli). Wealth inequality in India has also widened fairly sharply over the last two decades. Based on survey information about the net worth of households, wealth data shows the magnitude of wealth inequality: the top 10 per cent of individuals own over half of all-India's wealth, and the bottom 50 per cent own less than 10 per cent of the wealth. India's new world of development has privileged those with access to capital and skill. Further economy's orientation to business has neglected rural development and as such the gap between rural areas and urban areas has increased further.

The pattern of development has brought about a structural change in India. We have jumped from agriculture to services. While in the process of development, agricultural income has come down almost to 14 per cent of GDP, industrial income has not compensated agriculture. It has increased only to the extent of 27 to 28 per cent of GDP. Manufacturing sector which can generate substantial employment has stagnated at the level of 15 per cent. Agriculture cannot provide additional employment nor mega industries. Mega industries are capital intensive. In place of industries, what has made a big impact in Indian economy is services. Total income of services comes to more than

60 per cent. But the employment level is hardly 22 per cent. Because of different Pay Commissions, their income has increased much more than other people engaged in agriculture or ancillary industries. We have hardly 7 to 8 per cent people working in organized sector. Labourers engaged in such organized sectors belong to labour aristocracy. About 92 or 93 per cent of workers are huddled together in the informal sector and among them 77 per cent of the workers engaged in the informal sector receives hardly Rs.20/- per day per capita for their family subsistence. And so, inequality perpetuates in India's economy in spite of a rate of growth of almost 8 per cent both in the 10th and 11th plan periods.

Again there is also wide difference between different states. It is observed that rich states like Gujarat, Harayana, Maharashtra, Punjab and Tamilnadu secured on an average 6.8 per cent growth rate during 1991-2008, whereas poor states like Assam, Bihar, Madhya Pradesh, Odisha and Uttar Pradesh secured growth rate only on an average 4.7 per cent during the same period. There are also a number of medium states whose average income growth rate was 6.7 per cent. Naturally those states which are rich secure many advantages in investment both foreign and domestic, level of education and health, foreign trade and so on.

We should not also confine our analysis only on the basis of difference in income. We have also to take into account the differences in Human Development and find out why there is difference in income, wealth, pattern of development and human development index.

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Indian Statistical System : Emerging Challenges*

Prof. R. Radhakrishna

Chairman, National Statistical Commission

The official statistics plays a key role in any society. Government is the biggest producer and consumer of official statistics. The primary aim of official data is to provide correct picture of the society and economy; to respond to user needs and contribute to the formulation and monitoring of economic and social policies. Despite the emergence of private players in the supply of statistics, official statistics forms an essential basis for knowledge building in economic, demographic, social and environmental fields and also for efficient functioning of markets. Building up an impartial system of information that serves the government, honours the citizens' entitlement to public information is an essential element of a democratic society. Moreover, official statistics enables the citizens to judge the functioning of the government. It is a challenging task for official statistical system, while being in the government, it has to produce statistics free from government influence and earn public trust in statistics. According to United Nations Statistical Commission, "the essential trust of the public in official statistical information depends to a large extent on respect for the fundamental values and principles which are the basis for any society which seeks to understand it and to respect the rights of its members". Further the UN Commission observed that "the quality of the information available to the Government, the economy and the public depends largely on the cooperation of citizens, enterprises and other respondents in providing appropriate and reliable data needed for necessary statistical compilations and on the cooperation between users and producers of statistics in order to meet users' needs". The trust on official statistics depends on the freedom enjoyed by the official agencies from the government, as much as on the scientific principles and professional ethics adhered to by the official agencies in the collection, analysis and dissemination of statistics. All these considerations make official statistics a public good and hence require sufficient allocation of public resources for its efficient management. It is in this context India has established National Statistical Commission to safeguard the production and dissemination of high quality official statistics.

Institutional Architecture of The Indian Statistical System

The official statistical system in India is functioning within the overall administrative structure of the economy under the Union, State and Concurrent list. At the centre, it is

* Inaugural Address delivered at 44th Annual Conference of Orissa Economics Association held at LN Sahoo College, Cuttack on January 21, 2012

horizontally decentralized across the ministries and departments and in each ministry's jurisdiction, it is vertically decentralized between Centre and States. No office in the government which produces official statistics does it for its own sake and no official user of statistics produces all those statistics required by them. This interdependency makes the quality and timeliness of a statistical product of a producer depends on the quality of other statistical products used by them. The institutional architecture of the Indian Statistical System consists of an apex non-ministerial independent body viz., National Statistical Commission (NSC) to provide oversight to the official statistical system, National Statistical Office (NSO) with CSO and NSSO as its wings in the Ministry of Statistics and Programme Implementation and Statistical Departments in various Central and State ministries. The NSC performs regulatory role for core statistics and recommendatory role for other official statistics. For this purpose it lays down code of conduct for procedures of official statistics, issues guidelines for outsourcing of some activities of the official system and suggests statistical laws for enactment by the parliament. The NSO is the main machinery to coordinate the implementation of the recommendations of the NSC.

The following legal provisions exist in the statistical system: i) Right to access records and administrative data, ii) Obligation on the part of respondents to furnish correct information, iii) Sanctions for failure to furnish information, iv) Confidentiality/secrecy of information collected, v) Sanctions for failure to maintain confidentiality/secrecy, vi) Avoiding duplication. Some of the statistical Laws are: The Census Act 1948, The Collection of Statistics Act, 2008, Registration of Birth and Deaths Act, 1969

New Challenges

There have been new challenges to be addressed by the Indian Statistical System. The present concern of the impact of globalization and climate change on societies have brought to the fore a large number of issues to be addressed by the statisticians. How best the statisticians can assist the governments in meeting the data needs for managing the recovery from global economic crisis? How best the statisticians can assess the risks associated with climate change and their impact on the human well being? How best the Statisticians can assist the governments in monitoring the programmes made in achieving Millennium Development Goals? In public affairs, the profession of statistics carries a greater responsibility today than ever before.

The data requirements of the macroeconomic management have been changing over time. The recent shift in India from controlled economy to liberalized economy has put pressure on the official statistical system to meet the needs of the liberalized market economy which are different from that of a planned economy. This has impacted the coverage and timeliness of data and its management. With the elimination of controls, a

number of returns required to be filed have lost their relevance and therefore data on such operations ceased to exist. On the other hand, the liberalization is accompanied by the strengthening of supervision and regulation for which very sophisticated information has become necessary and for which the official systems has not yet been fully equipped. With the overwhelming focus on fiscal, financial and external sectors, special efforts need to be made to use available data on the fiscal and monetary aggregates as well as data on the operations of bank and financial institutions. National Statistical System is also continuously engaged in identifying core statistics including macro economic aggregates and improve their coverage, quality, and timeliness of availability.

Yet, there are some shortcomings in the national macro economic aggregates. First, there are some sectors which do not have even reliable basic data (e.g. fruits and vegetables, contraction, soft ware etc.). Second, almost all segments of fast growing service and financial sectors lack macro-economic data on value added, savings and capital formation. Moreover, even if data is available, it may not serve multiple purposes unless it is reprocessed. For instance, the insurance data which essentially fulfills the regulatory requirements may be different from what the economic statisticians need for building up macroeconomic aggregates. There is a need to find a solution to these problems. However, the recent developments in e-governance have opened possibilities for strengthening the coverage and frequency of modern sector data including those of fast growing sectors.

Sometime back The Economist has carried out a special report highlighting the issues involved in managing the data and information deluge, which was reported to be growing at a compound rate of about 60 per cent. The growth has been spurred by the revolution in information technology as well as globalization of the national economies. Data has become raw material of business and is treated, like capital and labour, at the same time, one of the reasons for the recent financial turmoil which encompassed the whole world has been the absence of certain vital data and information with key players in the financial markets. It explains that it is not merely the quantum, but the type, quality and timeliness of data flow that determine the efficiency of statistical and information systems.

While the enormous growth of global financial markets in the recent past has seen rapid expansion in supply of financial statistics spurred by IT revolution, the real sector statistics have lagged behind the growing requirements of the diversification of national economies driven by globalization. For instance, the national income accounts have yet to cover adequately the fast growing service sector. In some segments of the service sector, many conceptual issues have yet to be resolved. There has been rapid growth of the non-banking financing sector, including capital market institutions. Insurance and pension funds, which dominate the financial systems, are making fast in roads into the developing countries. National statistical system will have to generate new data sets.

Indian economy has become increasingly susceptible to periodic shocks originating from the global economy such as those related to financial crisis. As the domestic financial markets move towards full integration with the global financial markets, they are likely to be vulnerable to the contagion effect flowing from major financial crisis like the recent one. Moreover, domestic commodity markets are also exposed to the risks originating from the fluctuations in global commodity markets. Hence data are required for alert mechanisms to monitor the developments on the economic, social and environmental dimensions of crisis. Existing early warning systems and mechanisms for mitigating the social consequences of the economic and financial crisis deficient. Same is the case with natural disaster management. Though satellite imageries are available, appropriate statistical methods have not yet been developed to analyze the information provided by the satellite imageries for surveillance. Agencies have to be sensitized on not only the scientific value but also social purpose of the information.

The processing and storage capacity of computers may not be a constraint in data mining since it is growing very fast, and their prices are declining due to technological innovations. The volume of data is growing faster than the existing capacity of the human resources to process and extract wisdom from it. There is a shortage of data scientists, who combine the skills of software programmers, statisticians and analysts, and who can extract hidden patterns under big data.

We have extremely inadequate social and environmental statistics for monitoring the changes. The recent policy shift towards achieving inclusive and sustainable growth in some countries will call for diversification in the supply of statistics. Some of the social and environmental statistics call for entirely new methods of data collection. This places more responsibilities on statisticians to develop innovative methodologies as well as for evolving an integrated system of economic, social and environmental statistics. If successful, the subject of statistics will emerge as a meaningful social science. The official statisticians should interact with both academic statisticians and social scientists. The National Statistical Commissions are mandated to create forums for interaction between statisticians and social scientists. It would be fruitful if statisticians work along with policy makers in decision making while drawing proper inferences from both primary and synthetic data.

In addition to addressing the new challenges, the Indian Statistical System should rectify the deficiencies of the existing system noted by the Rangarajan Commission. They are:

- (a) Existence of gaps in availability of needed information
(e.g. Statistics on horticulture, construction, services unorganised sector);

- (b) Delays in publication of results (e.g. ASI, census, timely data on employment);
- (c) Large and frequent revisions of published results (see next page);
- (d) Gross discrepancies between official statistics from different sources (see Tables);
- (e) Occasional disagreement between tabulated summary results and publicly available basic data from which the summary has been produced (e.g. NSS data, cost of cultivation data); and
- (f) Lack of transparency in statistical operations.

We must realize that official data is a public good and adequate budgetary support should be provided to the production of quality statistical data and making them easily accessible to the public. Clearly, statistical data is an essential base for building knowledge in economic, demographic, social and environment fields and also for informed debates on the state of the economy and society.

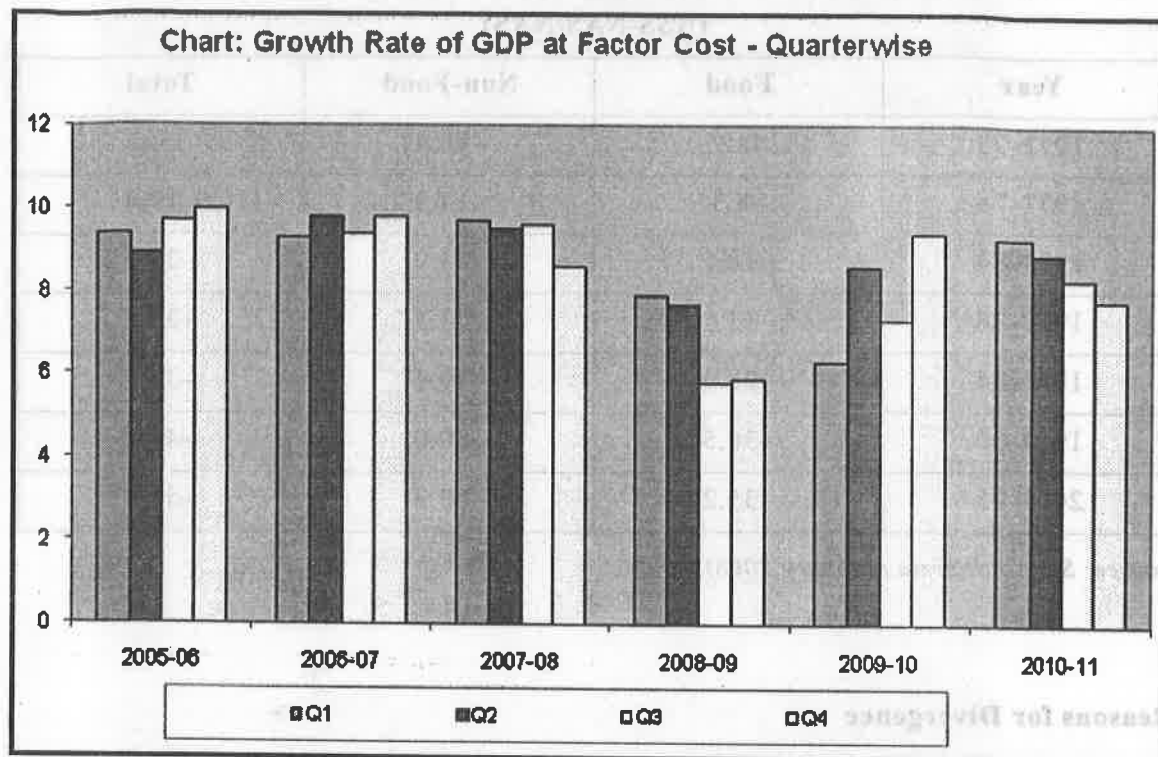
PROBLEMS WITH MACROECONOMIC DATA

(RBI Governor's Observations)

- RBI is handicapped in its policy calculation by the reliability of data relating to growth, wages and unemployment
- Index of Industrial Production has shown counter intuitive results
- During December 2008 to June 2009, IIP growth was positive according to then available IIP series. This is contrary to deceleration in some other related statistics on account of the economic crisis
- New IIP series revised with base 2004-05 showed, negative growth during the above period.
- Another problem with IIP is its volatility.

(Source of the above problems relate to mainly IIP. In this regard, GDP estimates perform better. However, lack of patterns in GDP across quarters may create problems because of base effect (see Chart).)

Chart: Growth Rate of GDP at Factor Cost - Quarterwise



Source: CSO

DIVERGENCE BETWEEN NAS AND NSS ESTIMATES OF PFCE

NAS Estimates of PFCE

- General approach – commodity flow approach for most of the commodities.
- In Commodity flow approach, availability of a commodity at different stages of its use in the economy is worked out, starting from production.

NSS Estimates – HCES

- NSSO conducts household consumer expenditure surveys.
- Provide estimates of monthly per capita consumption expenditure for different items, separately for rural and urban areas.
- Multiplying it by population gives total household consumption.

**Table-1: DIVERGENCE BETWEEN NSS AND NAS ESTIMATES
(NSS-NAS/NAS)**

Year	Food	Non-Food	Total
1972-73	0.2	-16.7	-5.5
1977-78	-8.3	-14.0	-10.4
1983-84	-18.5	-33.9	-24.9
1987-88	-13.5	-33.3	-22.4
1993-94	-28.9	-49.3	-38.1
1999-00	-36.5	-50.0	-43.0
2004-05	-35.2	-60.2	-50.3

Source: Savita Sharma (January 2008), CSO

Reasons for Divergence

The following are possible reasons for differences that are inherent in the methods of estimation used by the two agencies.

1. Coverage: - The NSSO Surveys exclude consumption expenditure of the houseless and the institutional population and Non Profit Institutions Serving Households (NPISHs) while consumption of these persons is included in NAS estimate.
2. Reference time:- NAS estimates are based on production during the year and NSS estimates give quantity consumed during the year, As The agricultural items produced during the agricultural year are not necessarily consumed during the same period, nor is the current year's consumption drawn entirely from the current year's production, these two estimates are strictly not comparable.
3. Estimates of rent on dwelling include all imputed rentals of owner-occupied dwelling in NAS while in NSS the rent actually paid is taken.
4. The Financial Intermediation Services Indirectly Measured (FISIM) is another such notional component in the NAS estimate which is not captured in NSS estimates.

Divergence between Census and NSS population estimates**Table-2 : COMPARISON BETWEEN CENSUS AND POPULATION ESTIMATES: 2004-2005**

All India Population (000)			% difference to Projected pop
Sector	Projected	NSS 61 st round	
Rural + Urban	1089521	981608	-10
Rural	769610	733103	-6
Urban	312697	248505	-21

Source: S.K. Sinha, NSC.

CORE STATISTICS**NSC Mandate :**

- To identify the core statistics, which are of national importance and critical to the development of the economy.
- To evolve standard statistical concepts, definitions, classifications and methodologies and lay down national quality standards on core statistics
- To evolve national strategies for the collection tabulation and dissemination of core statistics, including release of calendar for various data sets.

Characteristics of Core Statistics :

Core Statistics will have the following characteristics.

- a) They should be of national importance.
- b) It will be mandatory for the Governments at all levels to collect and disseminate them.
- c) They should conform to prescribed definitions, concepts and standards laid down by the Commission.
- d) They should be updated periodically, with suitable periodicity to be determined.
- e) They will be available at both aggregate and disaggregate levels, wherever appropriate.



Macroeconomic Models as Tools for Development Planning in India*

Professor Manoj Panda
Director, CESS, Hyderabad

I feel very much honoured for being elected by the Odisha Economic Association as its President. I am grateful to its members for this generosity. I have chosen to speak today on some issues related to uses of macroeconomic models as tools for development planning in India primarily because I have spent most of my professional life in this area.

The primary objective of development planning in India is two-fold: overall economic growth and raising the level of living of particularly the poor sections of the population. This is reflected in various phrases used to describe it: growth and social justice, growth and redistribution, growth and poverty removal, and inclusive growth. While it is well recognized that growth is essential in a low income country like India for raising living standards of the people, the growth process must be accompanied with specific policies so that the poor are not left behind. The macroeconomic models are discussed here from the point of view of analytical content for meeting these two objectives. Self reliance or import substitution was a major objective during 1960s and 1970s, but export pessimism was abandoned in later period with aggressive export promotion measures.

No doubt outcome of the actual planning process depends on many inputs other than technical inputs. No model captures the reality perfectly. By their very nature, they focus on certain relations and leave out others not critical for the purpose on hand. But model based technical exercises provide a check for consistency and technical feasibility of quantitative targets as well as the implications of adopting various instruments to achieve the targets. The models, with certain simplifying assumptions, help in systematic understanding of the various complex economic interrelations, internal consistency of the quantitative dimensions as well as the likely magnitudes of possible trade-offs.

Also, an important question arises at the outset: why bother about the plan models in a liberalized regime? Obviously, government cannot direct investment in each sector in a liberalized regime as done in the earlier regime. Yet, the government's role is not insignificant in several aspects. First, government has a role to play in designing suitable macroeconomic framework for economic growth and in designing suitable fiscal and trade

* Presidential Address delivered at 44th Annual Conference of Orissa Economics Association held at LN Sahoo College, Cuttack on January 21, 2012

policies. Second, active state support is needed for ensuring a minimum level of living to all citizens. Third, government must continue to play a monitoring role in the tradable sectors. Fourth, as generally recognized, government has direct role to play in provisioning of infrastructure and social sectors such as education and health. Hence, indicative planning has been found to be useful in some developed countries such as Japan, France and the Netherlands.

Indian Plan Models : Some form of macroeconomic framework has been implicitly or explicitly used for development planning in India right from the First Five Year Plan. As we might recall the First Five Year Plan of India initiated in 1951 a couple of years after independence used a variant of the Harrod-Domar model which states that the rate of growth in gross domestic product (GDP) of an economy equals the net investment rate divided by the capital-output ratio. While Harrod and Domar used the aggregative model to calculate the overall growth of an economy given the investment (and savings) rate, it was used to calculate the required investment rate necessary to meet the desired growth target during the plan. The policy prescriptions then could focus on generating the savings from various sources to meet the investment targets.

During the Second Plan, the two sector model developed by Mahalanobis provided the analytical backing for the strategy to focus on the Capital Goods sector. It showed that capital goods industry must grow faster than consumer goods industry in a closed economy set up in order to achieve higher growth of consumption in the 'long run'. A similar model had been developed as early as 1928 by Feldman¹ to explain the logic of planning strategy in the then USSR. The stagnancy in consumption standard in the initial decades in the USSR after its formation and a sharp rise thereafter seemed to validate the logic. The Indian planners were attracted by this strategy and emphasized the growth of the capital goods sector in the Second Plan.

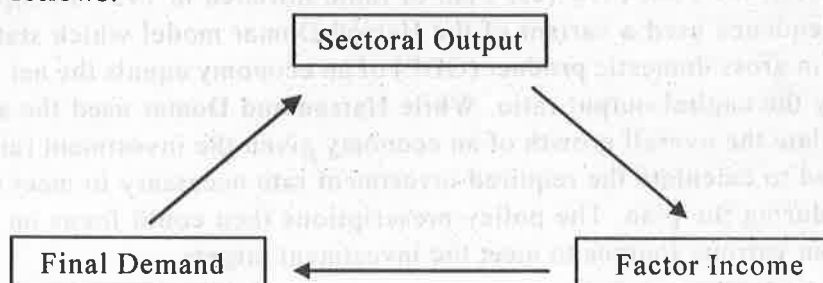
Serious attempts were made to extend the above aggregative models to multisectoral models which could provide more useful and practical guidelines to the actual planning process. Two explorative models published in 1960, one by Frisch and another by Sandee, demonstrated the feasibility of developing the multisectoral models for India in the input-output framework extensively used in the planning exercises carried out in subsequent decades. In contrast to aggregative macro models, the multisectoral models divide the economy into a number of sectors and enrich the analysis by considering, among other factors, inter-industry transactions and variations in sectoral demand pattern.

Two decades from early 1960s were the heydays of Indian planning exercises at the official or semi-official levels. The models developed may be classified into two

¹ It may be noted that the Feldman model was not known at the international level till an English translation was published in Domar (1957).

categories: consistency type and optimizing type². Starting with a base year of the plan period, they were generally solved for the target year of the plan period, the 5th year.

The basic idea of these models is to capture the circular flow of income in the economy. Households own factors of production. These are used by the production sectors to produce output of various goods and services and in return households receive factor income. The output is sold to households as well as to other producing sectors for meeting their final and intermediate demand. The circular flow (net of intermediate demand) can be shown as follows:



Government intervenes among these links to set the GDP growth target. Because of their relevance to the current generation models, it is useful to note down the following major but simplified steps involved in solving the Fifth Plan model:

1. Fix the GDP growth target during the plan from Harrod-Domar type analysis considering feasible savings rate from domestic and foreign sources;
2. Total consumption is obtained as a residual deducting investment and other final demand totals from GDP
3. For estimating the commodity composition of the private consumption expenditure, the linear demand system (LES) with underlying Stone-Geary type of log-linear utility function is used. Sectoral demand is a function of income and all the prices in LES. It was an improvement in the 5th plan compared to use of direct Engel elasticities or fixed average propensities to consume during the early years. The commodity composition of investment (by sector of origin) is normally obtained from total investment assuming fixed sectoral share in a static model.
4. Given the above final demand structure, a Leontief type input-output model used to find out an internally consistent sectoral output and income levels. Note that this implies output is demand driven.

² The model developed by Manne and Rudra (1965), and several official plan models including the Fifth Five Year Plan model are of consistency type while those by Chakravarty and Lefebvre (1965) or Eckaus and Parikh (1966) belong to optimization type models.

5. Required investment allocations to various sectors is then worked out taking into account change in sectoral output level during the plan period, i.e. in the terminal year over the base year of the plan.

In addition to the above steps in the consistency models, the optimizing models have a time dimension and an objective function that maximizes a stream of discounted consumption over the plan period and a capital coefficient matrix to link investment by sector of destination to sector of origin. Plan models are built around an input-output table constructed normally for a base year, the last year of the previous plan. Model is calibrated to reproduce the various values in the input-output table for the base year. It is then used to solve for the terminal year following the above steps.

The models could be used to predict sectoral growth pattern in various macro variables. The main utility of the model, however, lies in generating the model solutions by varying the major parameters over a range of likely values and help the policy maker in choosing the most preferred option. While plan formulation in practice will not have a single objective to optimize, the optimizing models can incorporate other economic objectives through additional constraints. They can contribute to the policy formulation process by developing alternative scenarios with different constraints that maximize defined social welfare. The book by Eckaus and Parikh is a classic example of such uses. So far as forecasting over the plan period is concerned, the consistency type exercise might provide the policy makers with more flexibility in this regard.

The Fifth Five Year Plan Technical Note, for example, considered 24 various scenarios on the basis of alternative growth rates in GDP and exports as well as with and without redistribution and import substitution. Such exercises can throw various insights into the likely development process of the economy and help the policy makers to choose a scenario that they consider the best taking into the socio-political reality. The actual choice of the targets and instruments ultimately is a political decision. But, the question before us as professionals is whether we can provide them with reasonable information on the implications of the possible alternatives over the medium run.

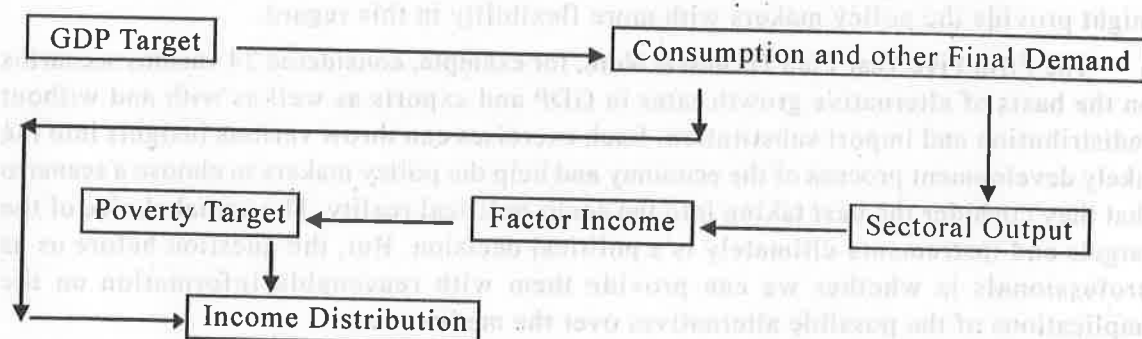
Income Distribution and Poverty: The Indian plan models were known for contributions in another area, namely income distribution. The consumers were considered as belonging to different income groups. The poor were identified as belonging to the lower income (consumption) groups. Apart from overall income growth, reduction in poverty was another major objective of development planning. As far back as 1962, a distinguished group of economists brought out a paper for the Planning Commission integrating the growth and distribution objective. They attempted to find out the growth rate in per capita consumption that is required to provide a minimum level of living to the a targeted proportion of the population, given certain assumptions about the income distribution parameter under that per capita consumption followed the lognormal

distribution. Some planning experiments were later conducted by putting the question the other way round. In fact, one could estimate any one of the following three variables given the other two:

- The per capita income for entire population
- Income distribution parameter under lognormal distribution, and
- Proportion of the population below the poverty line

It is possible to directly relate the distribution parameter or standard deviation of the lognormal distribution to the popular measure of income distribution, the Lorenz ratio. The Fifth Plan exercise, for example, tries to find out the required value of the Lorenz ratio (and corresponding shares of various deciles) consistent with the given the targets on per capita consumption growth and per capita consumption of the lowest 30% set at a pre-specified minimum level of living called the poverty line. Income distribution, however, did not have a feedback effect on the quantum and composition of private consumption due to the open loop character of the model.

Considering both GDP growth and poverty reduction targets, the links captured in these models at the implementation stage can be shown as follows:



It is instructive to consider the income distribution implication of the 5th plan poverty reduction target. This is shown in Table 1. As can be seen the required income distribution to achieve the targeted poverty reduction in the preferred case involved substantial increase in shares of bottom six deciles of the population and corresponding reduction for the upper three deciles. The policy measures, on the other hand, did not visualize significant new intervention at the point of income generation and assumed that it would have sufficient power to rely on redistributive measures at the point of disposal of income (Tendulkar, 1974). As it turned out in practice, the income distribution parameter, the Lorenz ratio, remained nearly invariant for several decades during the planning process

in India indicating limits to adoption of redistributive policies in a liberal democracy. Without credible commitment and supporting instruments for the redistributive measures in the plan policy framework, it was only natural that the poverty reduction target in the plan could not be met. Ambitious plan targets on either the growth front or the redistribution front must be accompanied by realistic and effective policy measures to achieve them.

Table 1: Percentage Share in Total Consumption by Fractile Groups in Fifth Five Year Plan - All India

Fractile group (%)	Base Year 1973-74	Target Year 1978-79 Preferred Case 3D
0-5	1.31	2.25
5-10	1.83	2.78
10-20	4.62	6.40
20-30	5.70	7.29
30-40	6.73	8.08
40-50	7.82	8.8
50-60	9.04	9.7
60-70	10.51	10.77
70-80	12.52	11.89
80-90	15.47	13.64
90-95	9.75	7.93
95-100	14.70	10.47
0-100	100.00	100.00

Source : *Technical Note on the Fifth Five Year Plan, Planning Commission*

Applied General Equilibrium Models : The 'plan models' were the major analytical tools to guide policy makers in an era when the public sector contributed about half of total investment in the economy and several direct and indirect instruments were available to control behavior of the private sector through the license mechanism. In the post-reform period, the need to allocate investible resources has reduced substantially and the government's role for direct intervention is now limited. But, government needs to track

the movement of various macro variables under different scenarios for consistency and stability and respond to changing scenarios through available policy instruments. In the absence of direct intervention, the necessity for macro tracking has in fact increased in some sense.

Several alternative models can be used for policy purpose in the new environment. Parikh (2009) documents five such models sponsored by the Planning Commission for tracking developments during the 11th Plan. These models are of several types: macro consistency, macro econometric, vector error correction and applied general equilibrium. I shall discuss below basic features and some applications of last category, namely the Applied or Computable General Equilibrium (AGE or CGE) primarily because of my familiarity with such models. In some sense the CGE models may be viewed as further extensions of the plan models discussed above. The plan model considered only real variables, all values being evaluated at constant base year prices. The CGE models consider prices endogenously. The database of a CGE model is a Social Accounting Matrix (SAM) which is an extended form of the input output table with income expenditure balances for household, government and foreign trade accounts. CGE models might be classified into two groups: structuralist and neoclassical³. The structuralist models focus on issues related to short run macroeconomic management, while the neoclassical models focus on efficiency issues through supply response. Hence, structuralist models are useful to examine questions related to demand management and inflation, while neoclassical models are suitable for issues related to trade liberalization whose main logic is to enhance allocative efficiency.

Structuralist CGE Model : The first CGE model for India developed at the NCAER was published in Taylor (1981). Several alternative versions have been developed over the years to provide short run forecast for the Indian economy and to analyse various policy issues. I illustrate below one set of use of this model by Panda and Sarkar (1986) dealing with impact of administered price rise. This ten-sector model had 2 agricultural sectors, 4 administered price energy and transport sectors and the rest market price based non-agricultural sectors. It had the following basic features:

1. Supply in the agricultural sector is assumed to be exogenously given in the short run being determined by weather conditions and fertilizer use. In the non-agricultural sectors, output is demand driven (just like plan models). Demand supply balance in agriculture is achieved through changes in stocks.

³ Taylor (1983), Panda and Sarkar (1990), Taylor (1983), Storm (1993) and Naastepad (1998) are some of the models for India in the structuralist tradition, while Narayana et al (1990) and Subramanian (1993), Parikh et. al (1997), Pradhan and Sahoo (1999), Panda and Quizon (2001) and Kumar and Panda (2009) belong to the neoclassical tradition. Dervis, De Melo and Robinson (1982), Shoven and Whalley (1984), Robinson (1989) and Taylor (1990) provide good discussion of CGE models. Leif Johansen (1960) was the first multi sector price endogenous model empirical model to analyse resource allocation issues.

2. Agricultural price is determined as a function of output and disposable income reflecting supply and demand conditions. Prices in the administered price sectors are specified exogenously. In other sectors, prices are determined by applying a markup rate and an indirect tax rate over the unit prime cost.
3. Wage rate is partially indexed to consumer price index while mark up rate responds to ratio of actual output to capacity output. Wage income depends on output level, labour output ratio and wage rate, while profit income depends on markup rate, output and prime cost. Profit income from the public sector enterprises accrues to government.
4. Profit earners have a higher savings rate than wage earners. Total private consumption expenditure is computed by deducting savings and direct taxes from income. Commodity composition of consumption responds to income and relative prices through the linear expenditure system (LES).

This framework is used to examine implications of resource mobilization by raising administered prices to finance additional public investment of Rs. 500 crores (at 1986-87 prices). This issue was very much in public debate in mid-1980s. Before discussing the results we may note that since non-agricultural output is demand driven, there is scope for a Keynesian multiplier effect in this model. The multiplier effect would, however, be one corresponding to a balanced budget situation since government expenditure rise is matched with additional resource mobilization. Intermediate inputs and capital expenditure too take away part of the government expenditure compared to a typical text book case. Further, rise in administered price of the infrastructure sector will lead to a cost push effect on prices of other sectors activated through the input linkages. The inflationary effect can potentially dampen down the multiplier effect.

The GDP and price effects are summarized in the following table. The results indicate that resource mobilization through the administered price route for financing investment leads to "growth and inflation". Raising revenue through increase in railway prices has the maximum effect on inflation followed by electricity, coal and petroleum products. The GDP effect, on the other hand, is in the reverse order. The study also attempted to experiment with traditional instrument of resource mobilization such as indirect tax on manufacturing products. This traditional instrument turned out to be better than administered prices on both GDP and inflation counts. Note that Rs. 500 crore rise in public investment has GDP effect ranging between Rs. 95 to 311 crore under different instruments. Thus, the multiplier ranges between 0.2 and 0.6 only in the situation described here.

Table 2: Effect of financing public investment of Rs. 500 crores by raising administered prices

Administered Price rise in sector	GDP Effect	Inflation Effect
➤ Petroleum products	231	0.60
➤ Coal	299	0.72
➤ Electricity	173	0.77
➤ Railways	95	0.84
Indirect tax rate rise in manufacturing sector	311	0.22

GDP values are at 1986-87 prices; inflation effect indicates % change in GDP deflator.

The building blocks of the Taylor type models are Keynesian-Leontief demand driven system, Kaleskian cost based prices, and Kaldorian savings behavior and as such have lots of structural features of a developing economy. They can capture inflation without monetary expansion due to administered price regime (as illustrated above) or due to supply side shocks arising from weather and government intervention to control it. To illustrate the later use, let us consider an experiment carried out using a similar frame reported by Sarkar and Panda (1990) who examine sensitivity of foodgrain price to change in food stocks held by the public sector. Against the background of 1987-88 drought, their experiments showed that an additional release of 0.4 million tons of foodgrains to the market reduced its price by 1.0 per cent given the 1985-86 structure of the economy. The government had actually released 6-7 million tones of additional foodgrains to the market in 1987-88 which would have neutralized a potential 15% increase in foodgrains price in that year.

Neoclassical CGE Models: We now turn to operation of a CGE model in the neo-classical tradition built where labour and capital allocation across sectors are determined by relative prices. Sectoral domestic prices play the equilibrating role to bring about supply and demand balance in each sector. The overall domestic price is exogenously given and serves as a numeraire. All prices determined by the model including wage and exchange rates are thus relative prices - relative to the given overall domestic price. The commodity and factor prices are real prices in this sense. Thus, like other models in this tradition, inflation and money are absent in the model.

Consider the growth and distribution effects of trade liberalization considered by Panda and Quizon (2001) in such a model. A distinctive feature of the model used by him lies in its consideration of distribution of income by rural and urban quartile groups, which helps in direct examination of changes in income of the poor and the rich. Various factor incomes in agriculture and non-agriculture are distributed to the income classes on the basis of a mapping matrix derived from household income survey. This point assumes importance since the efficiency gain from trade liberalization is often presumed to be at the cost of the poor.

The production function in non-agriculture is of CES type while agricultural output supply and input demand functions are obtained from a profit function. Private consumption is modeled using the Linear Expenditure System (LES) whose parameters for different quartile groups are taken from econometric studies using household consumption survey data by Radhakrishna and Ravi (1992).

Another feature of this approach is that it treats the domestically produced good and traded good in a particular sector as imperfect but close substitutes using the Armington specification. This avoids complete specialization that perfect substitution may entail and permits cross-hauling; i.e., the simultaneous imports and exports in the same sector as observed in reality. An important consequence of this specification is that domestic market prices do not change by the same order as the change in world price.

This model has been used to examine the effects of trade liberalization in India. I report here main results from two simulation experiments involving manufacturing and agricultural trade liberalization. The first simulation carried out involved manufacturing consumer goods, intermediate goods and capital goods sectors' import tariff rates reduced to 50%, 25% and 20% respectively from the levels prevalent during early 1990s. The experiments showed that these measures have beneficial effects on the nonagricultural sectors.

- Nonagricultural GDP rises by about 0.3% in this run over the Base run. The overall GDP effect of manufacturing trade liberalization is about 0.2%.
- Reduction in manufacturing protection lowers the relative price of manufacturing goods and, as a result, terms of trade move in favour of agriculture. The real exchange rate depreciates by about 8% due to industrial liberalization reflecting larger increase in imports bill than export earnings.
- Real investment rises despite tariff rate reduction and consequent fall in government savings.
- The fall in relative price of capital goods plays an important in so far as it contributes to raising the real investment rate in the economy even when nominal

investment remains constant. Note that the static nature of this model helps to capture only the demand generating effect of investment and not capacity enhancing effects.

In the second simulation, agricultural trade is liberalized in addition to manufacturing trade liberalization. The overall effect on real GDP is to raise it to about 0.5%. Thus, agricultural trade reform further strengthens the overall growth enhancing effect of industrial trade reform.

On the distribution side, none of the classes are adversely affected compared to the Base run when both agriculture and manufacturing sectors are liberalized. But, it is not so when liberalization takes place only in agriculture which benefits the rural population, the rural rich the most and the rural poor a little; but, it hurts the urban poor. The fall in real income of the urban poor is not surprising because they have to pay more as consumers due to foodgrain price rise.

Indian Policy Response to Global Financial Crisis

I shall now take up some results from a more recent study that examines the effects of global economic crisis in India. In response to the crisis, the government of India adopted several fiscal and monetary counter measures to limit the adverse the effects⁴. This involved increased government expenditure on infrastructure and other projects⁵, reduction in indirect taxes, reducing interest rates, easing the liquidity available with the banks, etc. The questions that arise in this context are:

How do we quantify the impact of the global crisis on the Indian economy? How much of the adverse effects due to global crisis might have been countered by the government? These issues have been addressed by Kumar and Panda (2009) by carrying out a series of simulations using a computable general equilibrium (CGE) model of the Indian economy. Since the CGE framework determines only relative prices and does not incorporate monetary variables, they examined effects of only “real” shocks and “fiscal” counter-measures leaving out effects of “monetary” policy responses such as increased access to credit and reduced interest rate. More specifically, they performed following 3 simulations to estimate potential impact of global crisis in the absence of policy response:

⁴ *It is interesting to note that virtues of counter cyclical fiscal policy measures were suddenly rediscovered, after more than two decades, to counter the recession in the developed world. Indian policy makers have adopted more balanced view in the past and fiscal and monetary instruments have been active instruments of state policy to promote growth and equity.*

⁵ *The Indian Government had already been undertaken at the beginning of 2008 a large expansionary fiscal package involving farmers' loan waiving, revision of salary of government employees, rural infrastructure, and primary education.*

- A. Fall in exports by 10% due to the global crisis,
- B. A reduction in the foreign capital flows in the form of 10% fall in remittances and 15% fall in foreign savings, and
- C. Fall in international oil and gas price observed in the second half of fiscal 2008-09 by 10% (on yearly average basis over the previous year).

To examine impact of policy response undertaken to mitigate the crisis effect, they examined effects of two fiscal policy measures:

- D. A rise in government consumption expenditure reflecting expansionary fiscal policy across the board in real terms by 5% from the Base scenario), and
- E. A cut in indirect taxes rates by 2 percentage point for the whole year; i.e. a quarter of the base value⁶. Recall that the Central government had announced an average reduction of about 4 percentage points in indirect tax rates in goods and services (except for petroleum products) in the middle of the financial year.

The GDP effects in the various simulations are given in Table 3. The simulation results show that a 10% fall in exports of goods and services could potentially lead to a real GDP loss of 3.3%. Given the current share of exports of goods and services in GDP, a 10% fall in exports could have a direct effect on GDP by about 2.0% and the rest might be considered as indirect multiplier effect. Note that the GDP effect here is due to export fall alone (partial effects) and not trade flows which also involved sharp contraction in imports whose 'competitive' component would have a favourable impact on GDP.

The adverse effect of the fall in capital flows in the second simulation turns out to 1.8 percentage points on GDP operating through consumption and investment demand elements. The oil price decline Simulation C, on the other hand, had a favourable effect on overall GDP growth by 0.9 percent. Thus, the adverse effects on GDP of the first three scenarios due to global developments turn out to be 4.2 percentage points. These are the potential effects under 'controlled conditions'. Obviously, the observed fall in GDP growth rate in 2008-09 was much lower in magnitude because actual change is the resultant of all factors operating in that year including the counter measures described in simulation D and E. The expansionary fiscal policy in simulation D helps to raise GDP by 0.7 percent. Simulation E indicates that indirect tax reduction might have helped the economy by raising the aggregate consumption by 0.8 percent. These results indicate that the two types of fiscal stimulus discussed here possibly helped to arrest GDP fall by about 1.5 percentage points.

⁶ Total indirect tax revenue was 8% of GDP in the Base run.

Lastly, on the income distribution side, they find that all income classes are unfavourably affected by the crisis and the fiscal measures provide only partial relief to all sections. In order to provide some more relief to the lower income groups, the authors carry out another experiment that expands the national rural employment guarantee scheme (NREGS) to fully cover all those unemployed among the poorest 70% of the rural population. This meant that nearly 19 million additional jobs are needed to undertake such a task at a cost of 1.4% of GDP⁷. By its very design, such a programme considerably raises the welfare of the lower income groups. With unemployed resources in the reference case, it increases GDP by 0.5% and provides marginal income gains to other income classes too.

Table 3: Effect of Global Environment in 2008 and Counter Measures on Real GDP (% change from Base)

Effects of Global Environment			Effect of Fiscal Counter Measures	
A	B	C	D	E
Exports of goods & services fall (10% by volume)	Inflows fall (10% remittances and 15% foreign savings)	Global oil price fall (10%)	Government consumption rise (5% in quantity terms)	Indirect tax cut (25% in base rate)
-3.3	-1.8	0.9	0.7	0.8

Conclusions :

I have tried to give a flavor of two types of macroeconomic models used for development planning purpose in India. The plan models were useful for resource allocation purpose when the public sector dominated in capital formation. While the initial plan models were basically aggregative macro exercises, multi sector models developed subsequently to capture inter-industrial linkages and determined output and investment levels for the target year of the plan in a consistency framework. Apart from the growth targets, the models -particularly those developed during 1970s and 1980s- also tried to incorporate the poverty reduction targets of the plan. The poverty reduction targets were, however, ambitious in so far as they depended on substantial fall in inequality by size classes of income, possibly beyond the feasible limits achievable in a liberal democracy.

⁷ In order to ensure that labour does not move out of the productive sectors of the economy to NREGS, its wage rate was set at 90% of the market wage rate.

The second type of models dealt with here belongs to CGE/AGE class. With several features common with plan models, these models might be viewed as extensions of the multisector plan models to incorporate endogenous prices. The plan models based on Leontief input-output analysis were demand driven models. Prices are kept fixed in the Leontief models, while the optimizing programming models determined shadow prices. The CGE models were the next generation models with market determined endogenous prices. The computational techniques developed in recent decades have made possible empirical implantation of such models.

The CGE models are suitable to reflect inter-sectoral and inter-agent linkages and wherever such linkages are substantial, they can provide insights for several policy issues not captured by other techniques. The structural CGE models are suitable for short run demand management issues such as effect of administered price rise or release of food stocks held by the government. The models in the neoclassical tradition are useful for analysis of efficient resource allocation issues in trade and fiscal policies. Capable of distinguishing income flows to several classes and maintaining their income expenditure balances, the CGE models when properly specified can help in identifying the gainers and losers in the policy debate. The examples briefly discussed here show the wide range of policy issues which can be analysed using CGE tools and focus on selected growth and distribution related variables. Behaviour of large number of other endogenous variables determined by such models could not be discussed here. If some researchers, particularly young colleagues, would be induced to go through the structures and uses of some of these models, I shall feel amply rewarded by this address.

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FINANCE AND GROWTH UNDER CAPITALISM*

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Once we reject Say's Law and recognize that capitalism is prone to deficiency in aggregate demand, we have to accept that sustained growth in this system requires exogenous stimuli. By exogenous stimuli I mean a set of factors which raise aggregate demand but are not themselves dependent upon the fact that growth has been occurring in the system; that is, they operate irrespective of whether or not growth has been occurring in the system. Moreover, they raise aggregate demand by a magnitude that increases with the size of the economy, for instance with the size of the capital stock. They are in other words different from "erratic shocks" on the one hand, and "endogenous stimuli", such as the multiplier-accelerator mechanism, on the other: the latter can perpetuate or accelerate growth only if it has been occurring anyway.

"Erratic shocks" can explain the persistence of business cycles, and can produce more or less regular cycles even when the spontaneous tendency of such cycles is to die down, that is, for the oscillations to be damped; but they cannot explain growth. Cycles that keep going because of "erratic shocks" can well occur around a stationary trend, so that, if a positive trend is to be accounted for, then erratic shocks per se are inadequate for the purpose.

On the other side, purely endogenous stimuli whose operation is dependent upon the fact that growth has been occurring anyway, cannot explain this growth itself. They can explain the persistence of growth once it has been set in motion, but they cannot explain why the system does not remain stuck at a stationary state; and they cannot also explain why, if growth perchance falters for some reason, it should revive again. (Indeed, as we shall see later, the stationary state is the sole stable growth path in a system with only endogenous stimuli). By their very nature, since they are conditioned by the fact of growth itself, they cease to operate when the system is in a stationary state; they cannot be adduced as an explanation for the system experiencing a positive trend. Such an explanation can only be based on the operation of exogenous stimuli, that is, of stimuli which are not themselves dependent upon the fact of growth taking place.

This last point can be expressed differently. The original Keynesian multiplier was concerned exclusively with rounds of demand-stimulating effect of an initial increase in

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investment, via consumption alone. But of course, demand stimulation through various rounds of consumption may also be augmented by demand stimulation via rounds of induced investment as well. This augmented multiplier which takes into account the various rounds of demand stimulation through both these channels was called the "super multiplier" by John Hicks (1950) and "compound multiplier" by Oskar Lange (1943). In other words, an initial "autonomous" increase in aggregate demand can cause through its "super multiplier" effects an overall increase in aggregate demand that is several times its size and much larger than what the Keynesian multiplier alone would generate.

The "super multiplier" effects of an initial increase in aggregate demand need not even be finite. An increase in income in other words may give rise to an increase in consumption and induced investment in each round, which together are greater than itself. Putting it in Keynesian parlance, the propensity to consume and the propensity to undertake induced investment may together add up to more than one: if an increase in income causes an increase in consumption that is c times itself and an increase in induced investment that is i times itself, then $(c+i)$ may well exceed 1.

But this fact, which means that successive rounds of additional demand generated do not keep shrinking (and hence tending to wards zero), and hence that the total demand generated by an initial injection of demand is without any upper bound, need not make the system explode, if the successive rounds demand increase are not concentrated within a single period but occur over several periods of real time. The typical assumption made in theoretical discussions is that the rounds of induced consumption effect work themselves out quickly (largely within the single period itself) while the rounds of induced investment effect work themselves out over several periods of real time. In multiplier-accelerator models, the induced consumption effects work themselves out fully within the single period while each round of the induced investment effect occurs over one whole period.

But no matter how exactly these rounds occur through real time, endogenous stimuli refer exclusively to the super multiplier effects of some multiplicand; they themselves do not constitute the multiplicand. Exogenous stimuli provide this multiplicand. And they can explain growth only if this multiplicand operates more or less steadily, and in ever growing magnitude.

The distinction I have been trying to draw can be expressed in yet another way. If we take Ragnar Frisch's (1933) distinction between propagation and impulse problems (a distinction drawn in the context of business cycle theory but relevant in the wider context of growth as well), then we can say that exogenous stimuli represent a steady and ever-increasing impulse, which alone can explain the growth of the system.

Once this distinction is clear, the basic argument of the present paper can be expressed as follows: "finance" itself cannot constitute an exogenous stimulus for growth in a

capitalist economy. It may influence how powerfully an authentic exogenous stimulus may operate, and it certainly does influence the strength of the Frischian propagation effects, or the Hicksian super-multiplier effects, i.e. the strength of operation of what I have been calling the "endogenous stimuli". But the exogenous stimuli themselves that underlie sustained growth are something different, something outside of the sphere of finance. And if finance, while strengthening endogenous stimuli, has the effect of choking off the possible exogenous stimuli that capitalism can draw upon for its growth, then, notwithstanding occasional bursts of activity its operation may stimulate (which would be followed by equally severe crises), it will cause secular stagnation.

This in my view is precisely the predicament of contemporary capitalism, characterized as it is by the hegemony of finance. Such hegemony, no matter how much it may strengthen the operation of endogenous stimuli, has the effect of choking off the principal exogenous stimulus that contemporary capitalism can draw upon, namely State expenditure; it thereby gives rise to a tendency towards secular stagnation. Before proceeding further however let us recapitulate the argument about the role of exogenous stimuli mentioned above.

II

The proposition that a capitalist economy without exogenous stimuli settles down at a stationary trend, which constitutes in fact the only stable trend (the "warranted rate of growth" of Harrod provides an unstable trend) is an integral part of neo-Keynesian growth theory (see Kaldor 1970, Goodwin 1951), for which a rigorous demonstration was provided by Kalecki (1962). The origin of this proposition however goes back to Rosa Luxemburg (1914, reprinted 1963). Rosa Luxemburg's theory was flawed in many ways: she argued for instance that the entire surplus value of the capitalist sector had to be "realized" through sales to the pre-capitalist markets, which is patently unwarranted and which called forth legitimate criticism from Nikolai Bukharin (Tarbuck 1972); but her basic insight that a capitalist economy, purely on the basis of endogenous stimuli, could not experience sustained growth was perfectly valid (Kalecki (1971) gives a simple exposition of her argument).

Kalecki's own demonstration of this proposition (1962) was based on taking three different investment functions, his own 1954 version, Harrod's 1939 version, and the multiplier-accelerator version. In all these versions he showed that the only stable trend that could emerge from the dynamics of accumulation was a stationary trend. A positive trend corresponding conceptually to Harrod's "warranted rate of growth" does exist but it is unstable, in the sense that any slipping away from it brings the economy back to the stationary trend. Harrod himself had presumed that the instability of the "warranted growth" path would give rise only to cyclical fluctuations around this path, i.e. that the

trend growth rate through the cycles would coincide with the warranted rate, but this is erroneous. Cyclical fluctuations, even in Harrod's own model, can occur only around a stationary trend.

This Kaleckian demonstration has been shown to hold for other investment functions as well (Patnaik 1997). But because any demonstration that endogenous stimuli alone cannot explain sustained growth has to take, for an elaboration of the argument, a specific investment function (or a specific set of investment functions), an impression can arise that the proposition is valid only for that specific investment function (or that specific set of functions). This however is wrong. The inadequacy of endogenous stimuli to explain sustained growth arises from the very fact that a capitalist economy can face a demand constraint, i.e. on the basis of any investment function that takes cognizance of this fact. Let us see why.

The reason why a capitalist economy is at all prone to facing a demand constraint lies in the fact that produced capital goods are not the only form in which people can hold wealth. In addition to capital goods, or claims to capital goods, wealth can also be held in the form of money. Since in any money-using economy, money can always be used as a form of holding wealth, such an economy can in principle face a demand constraint for produced goods, whose counterpart will be an excessive ex ante liquidity preference. Full employment/ full capacity in such an economy cannot obtain if, when full employment/ full capacity output is produced, there is an ex ante excess supply of goods and a corresponding ex ante excess demand for money, which cannot be eliminated through price changes alone, either because money wages/prices are inflexible, or because their flexibility cannot get rid of this excess demand/supply. (It may on the contrary compound them further because of the economy's inheriting a plethora of debt commitments (Patnaik 2009)).

The same fact of the availability of money as a form of holding wealth that causes involuntary unemployment in any given period, also ensures that the level of investment in a dynamic sequence is decided by each capitalist on the basis of a calculation of the expected growth of the market. Since market-shares of firms can change at best slowly, adding to capital stock in excess of the expected growth of the firm's market promises zero returns at the margin. True, this would not be the case if there are a lot of "marginal" producers who can be squeezed out of the business easily through price competition. But once the weight of these "marginal" producers has fallen sufficiently, capitalists' investment gets tethered, in the absence of any exogenous stimuli (on which more later), to the expected growth of the market, a fact that can be expressed through a multitude of specific investment functions.

But, again in the absence of exogenous demand-sources, the growth of the market itself, upon which alone can expectations about the future growth of the market be based,

depends upon nothing else but the tempo of investment (via the multiplier). It follows then that investment fuels itself; or growth on the basis of endogenous stimuli occurs on the basis of past experience of growth. But exactly by the same token, if there is a decline in growth, a slackening in the tempo of accumulation, then this slackening itself becomes self-reinforcing, and the economy keeps going downhill. No positive trend therefore can be a stable trend. On the other hand, if the economy is in a stationary state, or in a state of simple reproduction, then this state too tends to be self-perpetuating. And if perchance the economy is disturbed from this stationary trend, then the self-reinforcing nature of accumulation only produces cyclical fluctuations (where the boom may come to an end through either demand-side or supply-side constraints), but no positive trend.

It is not therefore a question of some specific investment function giving us the conclusion about the inadequacy of endogenous stimuli; it follows on the basis of any investment function that takes due cognizance of the role of the expected growth of the market (whether this is expressed as expected profits, or expected sales, or in some other way) in the determination of investment by a capitalist firm. If investment is determined on the basis of the expected growth of the market, and if the actual aggregate demand, on the basis of which expectations are formed, is not boosted by any external source and is determined exclusively by capitalists' aggregate investment (via the multiplier), then the economy's only stable trend is a stationary trend, around which it may experience cyclical fluctuations. If we have to explain sustained growth then we have to turn to exogenous stimuli.

III

The exogenous stimulus that has figured most prominently in the economic literature is "innovations" in the widest Schumpeterian (1939) sense. Kalecki (1968) explains the manner in which innovations introduce an external stimulus as follows. When an innovation becomes available, the firm that is the first to introduce it believes that it can steal a march over its rivals. It therefore undertakes some additional investment, over and above what it would have done anyway in response to the endogenous stimuli (as part for instance of the multiplier-accelerator process). Since all firms think this way, all of them (or at least several of them that have access to the innovation and to the requisite finance) undertake this additional investment. The net result is a larger investment, and hence a larger size of the market, which retrospectively justifies each firm's belief that it could sell more by introducing the innovation than it would have done otherwise.

If innovations appear in a steady stream then in each period there is an additional amount of aggregate investment undertaken (both gross as well as net); if the amount of innovation-caused investment in each period is linked, say, to the size of the capital stock, then we have a steady positive trend arising on account of innovations as an external

stimulus. Thus for innovations to generate a positive trend, they must appear in a steady stream and cause an amount of investment that is linked to the size of the economy, e.g. its capital stock. (In Schumpeter's model, where innovations do not appear in a steady stream and do not necessarily cause an amount of investment linked to the economy's capital stock, they do not give rise to a positive trend. Schumpeter obtained a positive trend only by assuming full employment to be the equilibrium state of the economy, i.e. by ignoring aggregate demand problems. But if we recognize the problem of aggregate demand, then innovations as visualized by Schumpeter could well cause cycles around a stationary output trend, with employment declining secularly (if labour productivity rises owing to innovations), even when the share of wages in output remains unchanged)⁸.

The arguments for innovations constituting an exogenous stimulus however are by no means convincing. If a firm, considering additional investment because it plans to introduce an innovation, expects retaliation from its rivals (whether or not they also introduce the innovation), then it will not undertake the additional investment. It would then believe that such additional investment will either lie idle; or cause a price-war to the detriment of all, including itself, in the event of its attempting to outcompete its rivals to sell more, on the basis of its lower costs owing to the innovation. Thus whether innovations actually cause additional investment over and above what would otherwise have occurred depends upon whether they expect retaliation from rivals, i.e. on the elasticity of their "imagined demand curve" (which takes rivals' responses into account) for downward price movements from the existing state. If this curve is inelastic, as in the standard "kinked demand curve" perception, then innovations will cause no additional investment.

This elasticity in turn however depends upon the "times". In a boom the elasticity of the "imagined demand curve" is likely to be greater than in a slump, in which case innovations may cause additional investment, over and above what would otherwise have occurred, in a boom, but not in a slump. If this be so, then innovations cease to be an exogenous factor. They are likely to cause more and more investment when the economy is experiencing a boom, but less and less investment when it is going downhill. They would not lift the economy from a slump; and for that very reason they would not introduce

⁸ This may appear to contradict the simulation results of Goodwin (1982) which show that if wages rise fast enough then at the end of a Schumpeterian "wave" of innovations the level of output, even if determined by demand, will be larger than in the initial position. But there is no contradiction between Goodwin's simulation results and the above assertion. Goodwin's results not only assume the absence of any acceleration effects, but, implicitly, something more: since the entire increase in output between the beginning of the "wave" of innovations and its end accrues to the workers (which is why there is a net increase in demand and hence in output), the share of wages is assumed to increase between the two points. (Though Goodwin himself has a very different wage determination equation, such an increase in the share of wages is a necessary fall-out in all cases where the output is supposed to increase between the beginning and the end of the "wave".

a positive trend. To say this is not to claim that innovations will remain un-introduced; but they would get introduced only as new equipment replacing the old within the firm's overall gross investment. They may even hasten the scrapping of old equipment, and for that purpose raise the level of gross investment, but the effect of that will be only to associate the stationary state with a higher level of activity (output and employment) but not to break its stationarity (for which net investment has to be positive).

This view, which runs contrary to conventional wisdom and was first put forward by Stiedl (1952), finds support among economic historians. Arthur Lewis for instance explains the enormous increase in labour productivity in post-war capitalism by the fact that a number of innovations had remained largely dormant during the inter-war period because of the depressed conditions and got vigorously initiated only during the post-war boom. He sees the introduction of innovations not as independent of the economic conditions, i.e. not as exogenous stimuli, but rather as endogenous stimuli, which cause more investment during the boom and less when activity is slackening.

Of course there may be certain innovations which are so significant that the products resulting from their introduction are bound to sell irrespective of the state of demand. The capitalists introducing them are certain of stealing a march over their rivals irrespective of the state of the economy and hence do introduce them. These are what Baran and Sweezy (1966) call "epoch-making innovations", like automobiles and railways. They can be considered genuine exogenous stimuli, but they are, of course, by their very nature, few and far between. The general run of innovations can be considered no different from endogenous stimuli.

IV

The two powerful genuinely exogenous stimuli that have played a profound role in the history of capitalism are: the colonial system, and the State. The colonial system, taken in its entirety, played this role right until the first world war. By the term "colonial system in its entirety" I mean not just the colonial and semi-colonial possessions like India and China, but also the so-called "settler colonies" from where the "native population" was driven away to accommodate immigrants from the capitalist core. The "colonial system" propped up growth under in the capitalist core in the following manner.

Along with migration of population from the core to the "settler colonies" or the temperate regions of white settlement, there was also a parallel migration of capital to these regions, but this "export of capital" from the core was made possible through an appropriation of surplus, without any quid pro quo, from the colonial and semi-colonial possessions. So the "drain" of surplus without any quid pro quo from India and other colonies financed the capital exports from the capitalist core to the settler colonies (Bagchi 1972).

But underlying these movements in "value" magnitudes there were also important changes relating to the commodity composition: Britain the leading capitalist country, and also the leading capital-exporting country, did not produce goods which were in high demand in the settler colonies like the United States. The demand there was substantially for raw materials, i.e. minerals and primary commodities, which were produced in the colonial possessions. Hence Britain's capital exports were made possible by British goods like textiles being sold in the Indian and other eastern markets, and goods from these latter countries being exported to a matching, or, where "drain" occurred, to an even greater, extent from these countries. British goods could be sold in the colonial and semi-colonial countries because they were markets on "tap": their markets could be used for unloading British goods, to the extent required, any time.

This entire pattern of global movement of capital and commodities, which was very convenient from the point of view of the capitalist core, underlay the prolonged boom that capitalism witnessed from the mid-nineteenth century until the first world war. After the first world war, however, this pattern collapsed. Domestic bourgeoisies in colonies like India, wanted their own space; Japan emerged as a rival to Britain in Asian markets; the scope for investment in the "new world" got exhausted with the "closing of the frontier"; and the scope for further de-industrialization in economies like India also began to get more and more limited. The Great depression of the 1930s was an expression of the fact that the old mechanism for stimulating buoyancy in capitalism could no longer function.

The Depression ended only when the second major exogenous stimulus for capitalism, namely State expenditure, came into effect, initially for war preparations, and after the war, under the impact of working class pressure and the threat of socialism, for introducing some "welfare state" measures. But, "State intervention in demand management" has also now run its course: the emergence of international finance capital as the hegemonic force under capitalism has attenuated the scope for it.

To see this, let us begin by asking the question: why is there so much opposition to State expenditure as a means of overcoming the present crisis both in the United States and Europe? Why is there a persistent demand for "austerity" which, if acceded to, is bound to aggravate the crisis? To say that it is only "bad economics" that underlies such demand is not enough. The "economics" that acquires hegemony at any time is the one that the hegemonic class endorses (a proposition that is particularly true of economics because it has such a direct bearing on State policy). The "bad economics" is one of the mechanisms through which the corporate-financial interests that dominate contemporary capitalism exert their pressure. "Austerity" is being imposed because finance capital is opposed to large-scale State expenditure to stimulate the economy.

It is not opposed to State activism as such, but it wants that activism to take the form of providing incentives to itself, of promoting its own interests, as the means of reviving the economy. It does not want direct State action for this purpose through larger public expenditure. Any State action that operates independently of finance capital, that seeks to work directly instead of working through the promotion of corporate-financial interests, undermines the social legitimacy of capitalism, and especially of these corporate-financial interests, for it raises the question: if the State is required to fix the system, then why do we need the system at all, why not simply have State ownership as such? Finance capital in the U.S. therefore has no objections to \$13 trillion of State support for stabilizing the financial system; but the moment the question of State expenditure for reviving the economy is raised, it begins to preach the virtues of "austerity". The era of hegemony of finance therefore is an era where "State intervention in demand management" a la Keynes recedes to the background.

As a result, capitalism at present has no exogenous stimuli to sustain its growth process, i.e. it lacks any mechanism for imparting sustained growth to it. Finance itself cannot constitute such an exogenous stimulus. This absence of an exogenous stimulus moreover is occurring in a context where the need for such a stimulus is becoming ever more acute. Let us see why.

V

With globalization there has been much freer flow of capital, including in the form of finance, and also of goods and services, across countries than ever before in the history of capitalism. As a result capital from the metropolis (and domestic big capital as well) can locate production in the third world countries, where wages are low because of the existence of massive labour reserves, and export to the metropolitan markets. This in turn makes the wages of workers in the metropolitan countries open to competition from the lower wages of third world workers, and hence, by inference, vulnerable to the downward drag exerted by the labour reserves existing in the third world countries. In the United States, for instance, in the last three decades the real wage rate of workers has fallen in absolute terms by nearly thirty percent.

In third world countries in turn it is not as if the real wage rate increases; on the contrary the immiserization and displacement of petty producers, including peasants, that is another hall-mark of globalization entails a swelling of the reserve army of labour which also exerts a downward drag on the real wage rate of workers that constitute the active army of labour for capitalism. Taking the world economy as a whole therefore there is a tendency for the real wage rate of the workers to decline, or at the very least, not to increase. At the same time, however, there is a steady rise in labour productivity, which means that the share of surplus value in total output increases.

Now, since a rupee of output coming to the workers gives rise to a much larger amount of consumption than a rupee coming to the capitalists, any rise in the share of surplus value in output has, other things remaining the same, a demand-depressing effect. If capitalists' investment increased when the extra rupee came to them, then this demand-depressing effect could be overcome, and the entire produced output could be realized. But, we have already seen that the tendency for capitalists' investment, far from rising, is to remain subdued or depressed in the absence of any mechanism for sustained growth. The net result therefore is a pronounced tendency towards over-production crises. The capitalist State that could have provided an antidote to this tendency towards over-production by stepping up its expenditure, and thereby absorbing a larger share of surplus value and helping its realization, cannot do so because of the opposition of finance capital to larger State expenditure.

It follows therefore that the incapacitation of the capitalist State as a provider of demand at will, not only leaves world capitalism without the requisite exogenous stimulus for the maintenance of sustained growth, but also pushes it further into stagnation for an additional reason, namely the tendency for the share of surplus value to rise in world output. World capitalism is thus caught in a deep structural crisis from which there are no obvious escape routes. This is not to say that capitalism will collapse, for that never happens. But as in the thirties a new conjuncture is emerging that is pregnant with historic possibilities for the transcendence of the existing system.

VI

To clarify the argument, let us consider a very simple model. Let the rate of growth of capital stock I/K be denoted by i , where i denotes net investment. Let us assume that this rate of growth of capital stock is given by the function:

$$i(t+1) = i(t) + b(u(t) - u_0) \cdot i(t) + \varepsilon \quad \dots \quad (i)$$

where u is the degree of capacity utilization, given by $Q/K\hat{a}$ (with \hat{a} being the technically given output-capital ratio) and u_0 some desired level of capacity utilization. (For a discussion of the investment function see Patnaik (1997)). Let us also assume that all wages and a fixed share of profits are consumed, and that price is a mark-up over the unit prime cost, which is nothing else but the unit labour cost, with the money wage rate and the labour coefficient per unit of output being given. The relative shares of wages and profits in total output are therefore given and so is the value of the Keynesian multiplier m . Equation (i) can then be rewritten as

$$i(t+1) = i(t) + b.(i(t).m/\hat{a} - u_0).i(t) + \hat{a} \quad \dots \quad (i')$$

If \hat{a} which represents the influence of exogenous stimuli was zero, then it can be checked that the system (i') will permit two possible trends, one which is stable is the

zero trend, and the other which is unstable is given by $\hat{a}u_0/m$, which is nothing else but the "warranted rate of growth" of Harrod. The system however acquires a positive stable trend because of \hat{a} being greater than zero, i.e. there being exogenous stimuli.

The argument of the present paper is that the exogenous stimulus which a modern capitalist economy can draw upon is State expenditure. But if the hegemony of finance keeps State expenditure tied to the tax revenue which in turn can also not be raised as a share of output over what has historically prevailed (but may even be secularly lowered), then the system becomes devoid of any external stimulus, and hence tends to settle down at a stationary state. And in so far as the share of profits tends to rise in this state because real wages do not keep pace with labour productivity, it follows that the level of output in this stationary state will also decline secularly.

Even leaving aside the question of "bubbles" and their collapse, it follows then that there is a tendency towards stagnation in the world capitalist system in the era of hegemony of finance for two distinct reasons: first, the weakening or elimination of exogenous stimuli, and second, the secularly declining value of the multiplier because of the steady shift of income distribution from wages to profits. "Bubbles" and their collapse, caused by the operations of finance, are additionally superimposed upon this. But the crisis that underlies "bubbles" and their collapse is far deeper and structural in nature.

Indeed one can argue that the "bubble-sustained" boom plays the role of camouflaging this structural crisis, whence it follows that the crisis does not consist merely of the collapse of the "bubble", but rather that this collapse actually reveals the extent of the underlying crisis.

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Employment Guarantee, Wage Hike and Labour Shortage in Agriculture : Myths and Reality

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I. INTRODUCTION

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is in implementation in all the rural districts (625) of India. The main object of MGNREGA is to provide for the enhancement of livelihood security of the rural households by ensuring a legal right of at least 100 days of unskilled wage employment to willing adult members. As a safety net for the poor, this Act aims at creating a demand-driven village infrastructure, including durable assets, to increase the opportunities for sustained employment.

Economic growth, promotion of human development and targeted programmes of poverty alleviation have comprised the three-pronged strategy of Government of India (GoI) to address the multi-dimensional nature of poverty since the early 1980s. Though the strategy has had a favourable impact on the country's poverty, there still exists a need to reach the benefits fully to the relatively less privileged classes of the society. Planning Commission estimates¹ indicate that India is home to 40.74 crore poor people (Planning Commission, Tendulkar Committee Report, 2009). The persistent poverty situation of the country has impelled GoI to implement MGNREGA as a social security and entitlement programme, giving the participants an option to sell their labour power to the government at a minimum price.

1.1 Rural Unemployment and Work Participation

The employment guarantee programmes in the contemporary world comprise a broad range of goals starting from providing income relief by generating employment, creating productive public infrastructure, ameliorating poverty, cultivating workers' bargaining power in the local labour market, enhancing job opportunity and simplifying job search (Drèze and Sen, 1991, Basu et al. 2009). Further, the employment guarantee in India is

¹ The Planning Commission, in a recently submitted affidavit to the Supreme Court on the issue of the below poverty line (BPL) population, has indicated that the country has a BPL population of 40.74 crore (The Hindu, 21.09.2011). The poverty lines for the urban and rural areas have been provisionally placed at Rs. 965 per capita per month (around Rs. 32 per day) and Rs. 781 per capita per month (around Rs. 26 per day), respectively.

quite different from that of the developed nations as the nature of unemployment in countries like India is more complex. The poor in India cannot afford themselves to stay out of work for a longer period. In rural India, the people are not only irregularly employed but are also largely classified as casual wage earners/labourers².

Table 1 indicates that there is a large gap between the rates of current daily status unemployment and the usual principal status of unemployment. While the usual status unemployment rate indicates chronic unemployment (as all those who are found usually unemployed in the reference year are counted as unemployed), the variation in the usual status and current daily status rates implies the presence of a high degree of intermittent unemployment in rural and urban areas. The intensity of intermittent unemployment is estimated to be higher in rural than urban areas. This is mainly because of the absence of regular and sustainable employment opportunities for many workers. Further, Census 2011 indicates that the literacy rate in India is still low at 74 per cent. A low level of literacy highlights the low skill level amongst the employable people.

Table 1: Unemployment Rate (per 1,000) of Age 15-59 years during 2009-10

Status	Rural			Urban		
	Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7
1. Usual Status (Principal + Subsidiary)	15	7	11	23	12	18
2. Current Weekly Status	28	13	21	30	16	22
3. Current Daily Status	55	25	40	41	18	30

Source: NSS Report (66th Round) on Key Indicators of Employment and Unemployment in India, 2009-10

An analysis of data on Worker Population Ratio (WPR) in the country shows that the rural male and Female WPR during 1983-84 to 2009-10 has declined (Table 2). The decline in the female WPR has been relatively steep during 1983-84 and 2009-10.

² NSSO defines a casual wage labourer as a person who is casually engaged in others' farm or non-farm enterprises and in return receives wages as per the terms of the daily or periodic work contract. In 2009-10, among the three statuses in employment, at the all-India level in the rural areas, self-employment had the dominant share (nearly 54 per cent) in usual status (principal and subsidiary) workforce, while the share of casual labour stood at 39 per cent and the rest (7 per cent) of the workforce was regular wage/salaried employees (NSSO 66th Round)

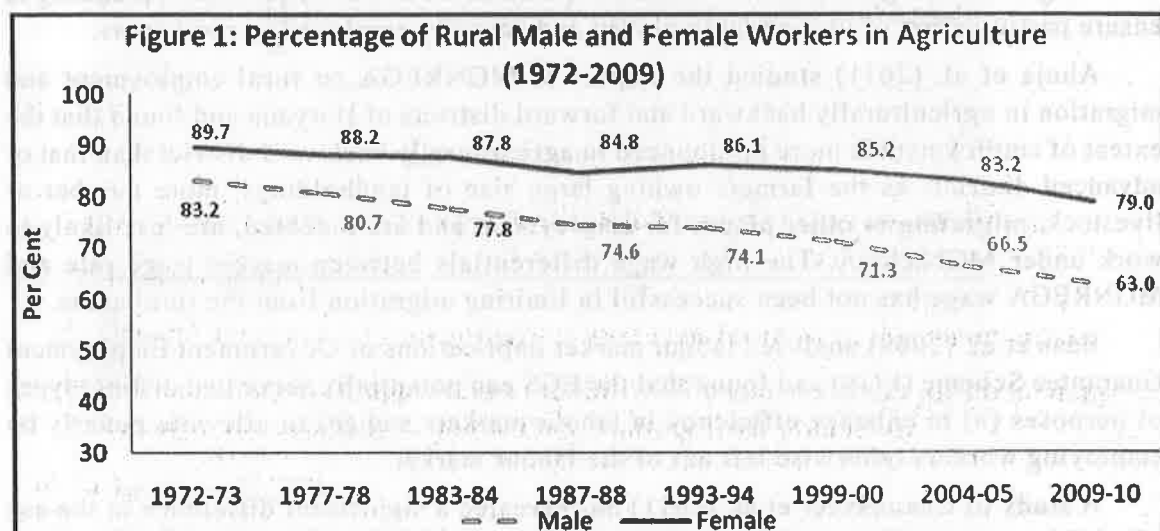
Table 2: Rural Worker Population Ratio (WPR) during 1983 to 2009-10

(Per 1,000 person/person-days)

Category	1983-84	1987-88	1993-94	1999-00	2004-05	2009-10
1	2	3	4	5	6	7
Male	547	539	553	531	535	537
Female	340	323	328	299	242	202

Source: Compiled from *Employment and Unemployment Situation in India: July, 2007-June, 2008* (NSS 64th Round Survey) and NSS report (66th Round) on Key Indicators of Employment and Unemployment in India, 2009-10

There is a continuous decline in the proportion of male and female workers in agriculture over the years (Fig-1). Between 1972-73 and 2004-05 the share of male workers in agriculture has reduced by 16.7 percentage points whereas the share of female workers has reduced by 6.5 percentage points. During 1999-2000 and 2004-05, the decline is 4.8 percentage points for male and 2.0 for female whereas during 2004-05 and 2009-10 the decline was 3.5 percentage points for male and 4.2 percentage points for female workers.



The low WPR and the continuous decline in the rural work force in agriculture could be ascribed to the non-availability of alternate and suitable employment opportunities and the necessary investment needed for creation of job avenues in rural sectors.

MGNREGA, in this context, is expected to tap the potential of rural areas for the creation of job opportunities by reinvigorating the village economy in the long-term and by the removal of demand side rigidities. The implementation of an employment guarantee act and the consideration of employability as a legal right have considerable economic, social and political significance. The State-specific Rural Employment Guarantee Schemes (REGS), which are the consequence of the MGNREGA, place a judicially enforceable obligation on the States. The REGS is expected to work towards relieving rural households of poverty and hunger by ensuring employment, income and livelihood support.

1.2 Literature Review

Several scholars have tried to look into the implementation aspects of MGNREGA since the launching of MGNREGA viz., rural wage formation and its consolidation processes, attendance of labour in public and private works and shortage of labour in private works and the impact of MGNREGA on agricultural productivity, rural-urban migration, rural poverty, etc.

Kamath (2010) analysed the design and implementation of MGNREGA and found that, in spite of legal social and livelihood security framework, lack of effective decentralisation and participation of village communities in planning and implementation of shelf of works³ under MGNREGA has impacted the programme spread and outreach. Analysing the NSS 62nd round of employment and unemployment data, she argued for a close alignment of agriculture, its seasonal operation with MGNREGA work planning to ensure participation of vast underemployed and casually employed in rural areas.

Ahuja et al. (2011) studied the impact of MGNREGA on rural employment and migration in agriculturally backward and forward districts of Haryana and found that the extent of employment is more pronounced in agriculturally backward district than that of advanced districts as the farmers owning large size of landholdings, more number of livestock, migrating to other places for employment and are indebted, are less likely to work under MGNREGA. The high wage differentials between market wage rate and MGNREGA wage has not been successful in limiting migration from the rural areas.

Basu et al. (2009) analysed labour market implications of Government Employment Guarantee Scheme (EGS) and found that the EGS can potentially serve two distinct types of purposes (a) to enhance efficiency in labour markets and (b) to alleviate poverty by employing workers otherwise left out of the labour market.

A study of Channaveer et al. (2011) has revealed a significant difference in the use of machine power between fully and partially implemented MGNREGA villages due to higher wage rates in the former category of villages. While the wage rates in fully

³ Clause 4 of Sub Section 3 of Section 16, MGNREGA 2005 mandates every Gram Panchayat to prepare a development plan and maintain a series of preferred and projected works for execution under MGNREGA.

implemented MGNREGA villages were higher in comparison to the partially implemented MGNREGA villages, the productivity of labour in the former category of villages were found to be lower vis-à-vis the latter.

Using pooled household level data for States of Rajasthan and Andhra Pradesh, Jha et al. (2009) found that size of landholding is a negative predictor of NREGP participation. In-equity in land holding pattern and higher ratio of NREGP to agricultural wage rate also contributed to participation in MGNREGA works.

Bezu and Holden (2008) studied public works programme (Food for Work) in Ethiopia and found that the public works encouraged adoption of fertiliser and had no production disincentive effect. They recommended the improvement in the planning and distribution of public works through targeting of the poorest as well as through price revision to self-select the needy.

II. OBJECTIVE, DATA, METHODOLOGY & SECTION PLAN

2.1 Objective

The objective of this paper is to explore the possible implication of MGNREGA on agricultural labour supply and wages in the country. To fulfil the objective of the paper the following research issues have been outlined:

- a) What is the trend/pattern in the implementation of MGNREGA?
- b) Is the apprehension among the farmers about the shortage of labour for agricultural operations due to MGNREGA correct and valid?
- c) Has MGNREGA pushed up rural wage rates?

2.2 Data and Methodology

The paper analyses secondary data collected from the Ministries/Departments/Agencies of GoI. Besides, data on the implementation of the programme in selected major States have been analysed. This paper also analyses the trend in the generation of wage-employment and financial progress under MGNREGA. While in-house data of Ministry of Rural Development are used for analyzing implementation variables of MGNREGA, the study relies on various round of NSS Employment and Unemployment survey to shed light the picture about employment/unemployment, work participation in agriculture and public works and wage rates in various category of works.

2.3 Section Plan

The following section presents a brief review of progress of implementation of MGNREGA in a few States. Section IV discusses works taken up under MGNREGA and their linkage with agriculture. Section V deliberates upon rural labour supply and wages

in public and private works. Planning, budgeting and possible convergence of public works under MGNREGA are reviewed in Section VI. Section VII gives the concluding remarks and some policy prescriptions.

III. MGNREGA: THE JOURNEY SO FAR

In this section the status of implementation of MGNREGA has been reviewed and issues analysed. Due to some missing data, out of the 34 States which are implementing MGNREGA, 26 States have been considered here for the analysis.

3.1 Expenditure and Employment

During 2007-08 to 2010-11, the expenditure as a percentage of total available funds showed a skewed distribution, ranging between 35.9 (Maharashtra) and 91.3 per cent (Nagaland) during 2007-08; 20.5 [Jammu & Kashmir (J & K)] and 61.0 (Mizoram) during 2008-09; 50.3 (Maharashtra) and 95.5 (Orissa), during 2009-10 and 37.5 [Himachal Pradesh (HP)] and 117.9 (Karnataka) during 2010-11 (Table 3). For all the States under reference, the expenditure as a percentage of total available funds was 73.0 per cent, 47.8 per cent, 76.4 per cent, and 75.4 per cent, respectively, during 2007-08, 2008-09, 2009-10 and 2010-11. The employment (of any duration) provided to jobs demanded under MGNREGA during the reference years were 99.2, 97.7, 99.3 and 98.5 per cent, respectively. This indicator, however, witnessed a skewed distribution across the states indicating varying intensity of rightful implementation of the Act. Some States also recorded full employment vis-à-vis the demand. However, what remains to be examined is how many people, who have been issued job cards, have actually demanded employment. As per reports (www.rural.nic.in), the gap between the number of job cards issued and employment demanded is wide, which could be due to the belief of the applicant that mere registration of application or the issuance of a job card ensures unemployment benefits to the job-seeker. Job-seekers may not be aware that after registration they have to demand employment.

**Table 3: Expenditure and Employment Performance under MGNREGA
(2007-08 to 2010-11)**

Sl. No.	States	% of Expenditure Against Total Available Fund				% Employment (household) Provided to Demanded			
		07-08	08-09	09-10	10-11	07-08	08-09	09-10	10-11
1	2	3	4	5	6	7	8	9	10
1	Andhra Pradesh	59.6	56.3	83.8	59.8	100.0	100.0	100.0	100.0
2	Assam	83.7	43.8	72.6	72.6	99.3	86.0	99.9	99.5

3	Bihar	59.8	45.0	77.0	84.4	98.9	100.0	100.0	99.5
4	Chhattisgarh	79.5	52.5	80.0	74.7	98.0	99.7	100.0	100.0
5	Gujarat	69.4	37.2	75.3	62.0	100.0	100.0	100.0	99.9
6	Haryana	77.3	37.7	73.8	92.5	100.0	96.2	100.0	99.1
7	Himachal Pradesh	68.9	39.4	89.3	37.5	94.5	98.0	99.6	99.4
8	Jammu and Kashmir	68.9	20.5	72.8	90.5	100.0	89.4	95.4	98.9
9	Jharkhand	72.4	41.6	71.7	78.4	100.0	99.8	100.0	99.9
10	Karnataka	72.8	30.4	82.1	117.9	99.4	98.6	97.3	92.1
11	Kerala	57.7	42.1	80.3	83.5	94.5	98.2	99.7	99.1
12	Madhya Pradesh	87.3	50.4	65.6	70.6	104.9	99.9	100.0	99.1
13	Maharashtra	35.9	44.4	50.3	59.0	109.0	75.2	100.0	99.4
14	Manipur	49.2	43.4	76.9	104.5	100.5	98.9	100.0	99.2
15	Meghalaya	81.7	47.6	72.8	94.1	97.4	89.9	99.3	96.8
16	Mizoram	63.2	61.0	80.2	103.3	97.2	100.0	100.0	100.0
17	Nagaland	91.3	30.7	79.5	114.4	100.0	100.0	100.0	100.0
18	Orissa	82.4	35.3	95.5	85.6	99.1	91.5	98.6	98.8
19	Punjab	65.1	24.3	71.0	71.9	99.6	66.1	99.7	99.8
20	Rajasthan	81.0	55.7	69.1	55.9	100.0	99.8	100.0	95.2
21	Sikkim	57.4	34.1	62.5	102.1	98.3	86.0	100.0	100.0
22	Tamil Nadu	60.2	44.6	73.0	83.9	100.0	99.6	100.0	100.0
23	Tripura	90.6	51.2	75.3	99.0	99.4	99.8	99.8	99.9
24	Uttar Pradesh	75.8	43.0	82.7	78.0	96.2	94.0	96.7	97.7
25	Uttarakhand	68.3	36.5	78.8	94.1	100.0	99.5	100.0	100.0
26	West Bengal	62.6	40.8	87.6	92.7	95.3	99.5	99.7	99.7
	Total	73.0	47.8	76.4	74.6	99.2	97.7	99.3	98.5

Note: Expenditure in certain cases is more than 100 per cent due to excess State share contributed to the pool of MGNREGA fund.

Source: Compiled from MGNREGA database of Ministry of Rural Development, www.nrega.nic.in

3.2 Labour Intensive Unskilled Works

To discourage material intensive works and ensure planning and execution of labour oriented activities, MGNREGA treats the expenses on semi-skilled labour as administrative expenditure on expenses on material. Under MGNREGA, the ratio of expenses on unskilled wages to other expenses should ideally be 1.5:1.00 (i.e., 60:40). In five States (Bihar, HP, Jharkhand, Orissa and Punjab), this ratio has been less than the desired minimum during 2007-08 (Table 4). During 2008-09, Assam, J & K, Jharkhand, Madhya Pradesh (MP), Nagaland, Orissa and Sikkim and during 2009-10, HP, Jharkhand, MP and Nagaland recorded ratios of expenses on unskilled wages to other expenses below permissible levels. The ratio is more than 1.5 for all the other States. Assam and Himachal Pradesh reported material expenditure less than the minimum cut off of 1.5 during 2010-11. The exceptionally high ratio of expenses on unskilled wage to others in some States (Andhra Pradesh and Maharashtra for 2007-08 and Tamil Nadu for all three years), may be mainly due to two reasons such as (a) non reporting or under-reporting of the amount spent on semi-skilled, skilled and other materials, (b) excessive stress on earth works that require minimal expenses on activities other than payment towards unskilled wages.

**Table 4: Unskilled Wage and Material Expenditure under MGNREGA
(2007-08 to 2010-11)**

Sl. No.	States	Ratio of Expenses on Unskilled Wage to Others				% Age of Expenditure on Material to Total			
		07-08	08-09	09-10	10-11	07-08	08-09	09-10	10-11
1	2	3	4	5	6	7	8	9	10
1	Andhra Pradesh	6.1:1	3.2:1	4.7:1	2.0:1	1.8	16.2	12.9	33.2
2	Assam	1.8:1	1.4:1	1.6:1	1.4:1	33.8	33.1	32.4	42.6
3	Bihar	1.4:1	1.8:1	1.6:1	1.7:1	40.7	27.0	32.3	36.5
4	Chhattisgarh	1.8:1	1.7:1	1.8:1	2.8:1	33.9	32.1	30.4	26.0
5	Gujarat	1.9:1	2.8:1	2.4:1	1.8:1	14.6	19.9	25.6	36.1
6	Haryana	1.8:1	3.0:1	1.6:1	2.2:1	33.7	21.0	33.1	31.5
7	Himachal Pradesh	1.1:1	1.6:1	1.2:1	1.4:1	47.2	33.6	35.6	41.8
8	Jammu and Kashmir	1.8:1	1.4:1	1.8:1	1.8:1	33.7	18.7	16.6	35.3
9	Jharkhand	1.4:1	1.0:1	1.4:1	2.3:1	40.8	44.8	36.1	30.0
10	Karnataka	1.5:1	1.9:1	1.7:1	1.8:1	39.3	29.8	35.3	36.4
11	Kerala	7.9:1	4.6:1	6.6:1	17.4:1	5.0	7.7	7.0	5.4

12	Madhya Pradesh	1.7:1	1.4:1	1.4:1	1.6:1	35.4	32.3	35.9	39.0
13	Maharashtra	17.5:1	6.6:1	4.1:1	3.7:1	4.9	4.9	5.7	21.1
14	Manipur	1.5:1	1.8:1	1.5:1	1.9:1	40.0	29.4	31.7	34.5
15	Meghalaya	5.1:1	2.1:1	1.7:1	1.9:1	15.2	24.7	29.1	34.8
16	Mizoram	5.1:1	5.0:1	2.9:1	2.3:1	11.6	9.3	16.0	30.3
17	Nagaland	1.5:1	1.4:1	1.4:1	1.5:1	37.3	30.1	29.5	39.8
18	Orissa	1.4:1	1.4:1	1.6:1	1.7:1	41.3	37.2	33.9	37.2
19	Punjab	1.4:1	1.6:1	1.7:1	1.7:1	39.0	28.6	29.0	37.6
20	Rajasthan	2.7:1	2.2:1	2.2:1	2.6:1	25.5	27.0	25.7	27.6
21	Sikkim	4.2:1	1.3:1	1.8:1	1.5:1	19.3	38.9	29.5	40.1
22	Tamil Nadu	27.3:1	21.3:1	33.9:1	N.A.	0.0	0.0	0.0	0.0
23	Tripura	2.0:1	1.6:1	1.7:1	1.8:1	31.5	34.5	32.9	35.8
24	Uttar Pradesh	1.5:1	1.7:1	1.5:1	1.9:1	38.8	30.5	33.4	34.9
25	Uttarakhand	1.5:1	1.9:1	1.7:1	2.1:1	36.1	27.0	30.6	32.0
26	West Bengal	3.6:1	1.9:1	1.9:1	1.8:1	19.4	27.7	26.9	35.9
	Total	2.0:1	1.85:1	2.1:1	2.2:1	2.2	27.2	27.1	31.6

N.A.: Not available

Source: Compiled from data on MGNREGA of Ministry of Rural Development, www.nrega.nic.in

During 2007-08, four States (Bihar, HP, Orissa and Jharkhand) reported more than the ceiling of expenditure mandated on materials. Gradually over 2008-09 and 2009-10, this has reduced to nil. However, during 2010-11, Assam, Himachal Pradesh and Sikkim incurred more than the ceiling of expenditure mandated on materials (Table 4).

3.3 Employment Guarantee: Goal & Achievement

Average person-days employment per household was recorded at 39.8 during 2008-09 (Table 5). There was an improvement in the provision of employment under MGNREGA during 2009-10 as the average person days employment per household increased by 14.3 person-days to 54.1 person days per household over 2008-09. But this average person-days employment per household declined to 46.8 during 2010-11 indicating that MGNREGA did not attract a specific demand pattern in the rural area during the last three years.

When one compares the numbers of households which received the MGNREGA mandated 100 days of employment with the total numbers of households which demanded

employment under the Act, a dismal picture in the performance of the Act emerges. During 2008-09, out of the total number of households demanded employment, only 3.4 per cent of household could be assured 100 days of employment. During 2009-10, the MGNREGA performance marked an improvement as 11.1 per cent of households could obtain 100 days of employment. The performance of this indicator slid down to 10.0 per cent during 2010-11.

During 2008-09, out of the total household demanded employment, only nine States (Andhra Pradesh, Assam, Chhattisgarh, Haryana, MP, Meghalaya, Rajasthan, Tamil Nadu and UP) recorded higher than the national average of 3.4 per cent. Similarly, during 2009-10, Andhra Pradesh, Karnataka, MP, Nagaland, Rajasthan, Sikkim, Tamil Nadu, Tripura and UP recorded higher than the national average of 11.1 per cent. Similarly, Andhra Pradesh, MP, Manipur, Mizoram, Nagaland, Orissa, Sikkim, Tamil Nadu and Tripura were above the national average of 10.0 per cent during 2010-11.

Table 5: Average Person-days Employment and Per cent of Households assured 100 Days' Employment (2008-09 to 2010-11)

Sl. No.	States	Average person-days employment per Household			% of households assured 100 days' employment to total employment demanded		
		08-09	09-10	10-11	08-09	09-10	10-11
1	2	3	4	5	6	7	8
1	Andhra Pradesh	34.55	65.67	54.05	5.5	22.7	15.6
2	Assam	33.76	34.29	26.16	4.9	6.1	2.5
3	Bihar	26.42	27.55	33.82	0.5	6.9	6.0
4	Chhattisgarh	54.95	51.41	44.67	4.8	7.9	7.4
5	Gujarat	20.47	36.65	44.87	2.0	6.5	6.2
6	Haryana	37.35	37.74	35.79	9.0	5.6	3.8
7	Himachal Pradesh	33.53	57.29	49.4	3.0	9.7	4.9
8	Jharkhand	43.37	49.48	41.81	2.5	7.8	6.6
9	Karnataka	81.41	56.62	49.35	1.8	12.3	5.4
10	Kerala	18.26	34.22	40.85	0.4	4.0	5.7
11	Madhya Pradesh	45.67	55.66	49.87	5.3	14.4	10.5

12	Maharashtra	49.26	46.38	44.33	2.0	3.8	6.2
13	Manipur	41.58	73.15	68.14	0.4	0.0	25.0
14	Meghalaya	31.46	49.41	57.72	8.4	4.4	5.5
15	Mizoram	49.61	94.57	97.13	0.0	3.9	77.2
16	Nagaland	49.28	87.4	95.3	0.0	31.8	54.2
17	Orissa	34.08	39.57	48.71	1.5	5.8	10.1
18	Punjab	42.69	28.37	27.11	0.3	2.8	1.9
19	Rajasthan	58.94	68.97	51.64	16.7	23.2	8.1
20	Sikkim	39.17	79.92	85.35	0.7	23.3	45.6
21	Tamil Nadu	32.43	54.67	54.05	7.3	17.4	22.2
22	Tripura	40.03	79.56	67.23	0.1	36.5	14.6
23	Uttar Pradesh	43.01	64.91	52.07	8.1	14.1	9.1
24	Uttarakhand	33.85	34.92	42.44	0.5	4.0	4.7
25	West Bengal	19.4	44.59	31.07	0.1	2.1	2.1
	Total	39.8	54.1	46.79	3.4	11.1	10.0

Note: Due to inconsistency in the data for Jammu & Kashmir, the same was not considered

Source: Compiled from data on MGNREGA of Ministry of Rural Development, www.nrega.nic.in

The employment guarantee under MGNREGA is a legal guarantee provided to each and every rural household. The figure presented in Table 5 also highlights that either every rural household is reluctant to take up the job offered by the Government under the Act due to the prevalence of any one or more limiting factors such as (i) rationing in the programme administration in the rural areas, (ii) growing wage differentials, (iii) arbitrary selection of works and award of job offer and (iv) lack of beneficiary/worker friendly environment at the ground level programme administrative machinery.

IV. MGNREGA WORKS & AGRICULTURE

Schedule I (1) of MGNREGA 2005 has laid down activities permissible under MGNREGA. These are rural connectivity, flood control/protection and drought proofing, water conservation/harvesting, minor irrigation, renovation of water bodies and land development. These activities, by its nature and medium of intervention, have important effects on supply conditions, productivity, sustainability of rural economic activities.

Works carried out under MGNREGA, not only aim at generating wage employment in rural areas but also envisage improvements in the agricultural production and productivity. Quite appropriately, Schedule I (2) of MGNREGA 2005 mandates creation of durable assets and strengthening of the livelihood resource base of the rural poor.

The category of works taken up under MGNREGA during 2008-09 and 2010-11 is depicted in Table 6.

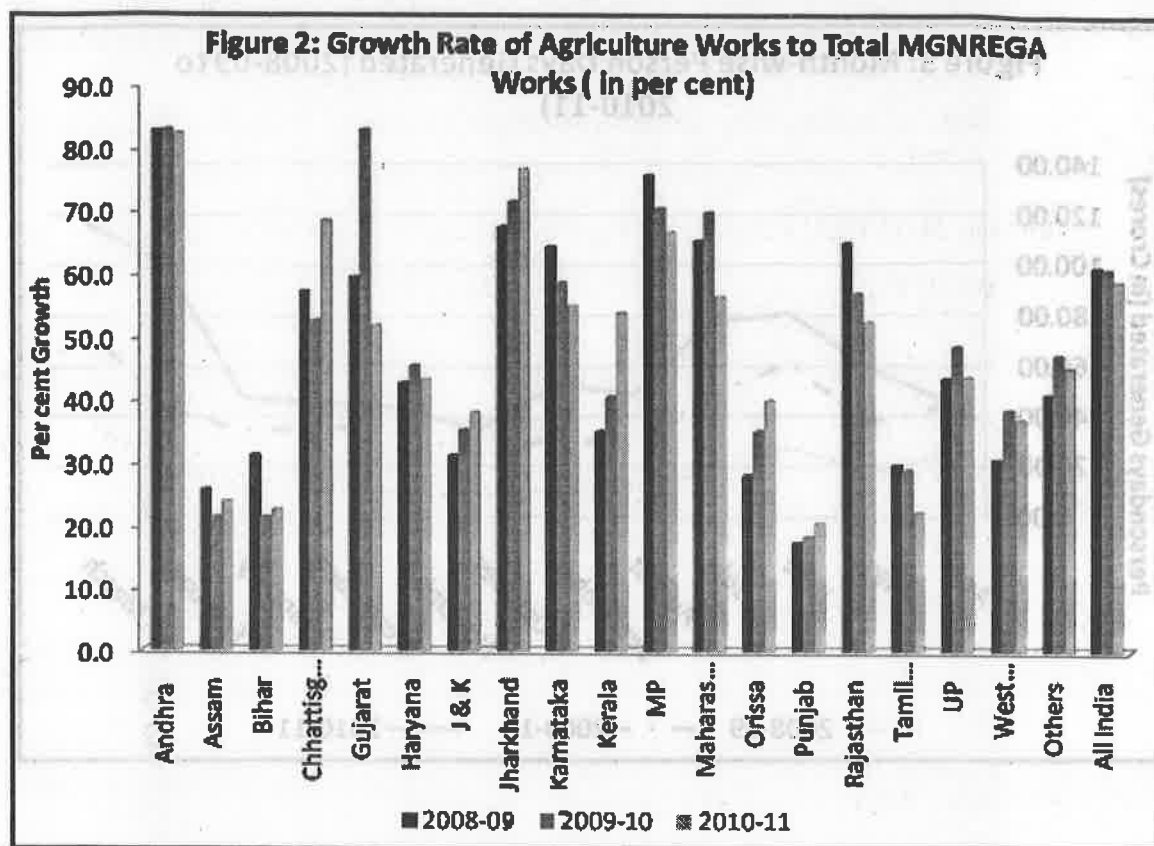
Table 6: MGNREGA Works by Type and Growth (2008-09 to 2010-11)

Sl. No.	Work Type	Works (in Numbers)			
		2008-09	2009-10	2010-11	Growth in 2010-11 over 208-09 (%)
1	Water conservation & water harvesting	587,970 (21)	1,097,990 (24)	1,032,913 (20)	75.7
2	Micro irrigation works	145,301 (5)	299,297 (6)	344,813 (7)	137.3
3	Provision of irrigation facility to individual lands	566,603 (20)	772,862 (17)	914,878 (18)	61.5
4	Land development	397,777 (14)	637,728 (14)	703,809 (14)	76.9
5	Agri-related Works	1,697,651 (61)	2,807,877 (61)	2,996,413 (59)	76.5
6	Total of works undertaken	2,774,660 (100)	4,617,032 (100)	5,098,990 (100)	83.8

Note: Figures in parentheses are column-wise per cent to the total in respective years

Source: Ministry of Rural Development, Government of India

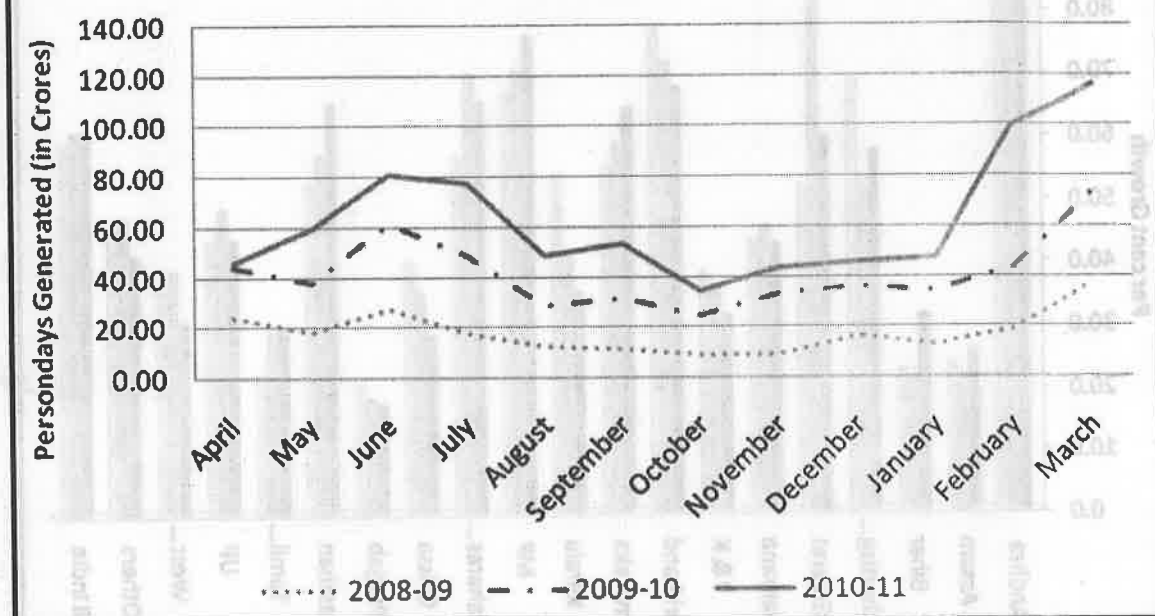
During 2008-09 and 2010-11, there is a sharp increase in the number of works opened under MGNREGA. While 2.77 lakh works were opened during 2008-09, during 2010-11, 5.08 lakh of works were initiated. On an average, 60 per cent of total works were on agriculture related activities viz. water conservation and water harvesting, micro-irrigation and land development. During 2008-09 and 2010-11, while total works under MGNREGA grew by 83.8 per cent, the agriculture related works grew by 76.5 per cent. A similar pattern was noticed when State-wise category works were analysed for 18 major States of India (Figure 2).



Agricultural Statistics at a Glance, 2010 published by Ministry of Agriculture, GoI explains that out of the country's total geographical area of 329 million hectares the net sown area is 140.3 million hectares. However, the net irrigated area of the country is only 60.2 million hectares. As much as 174 million hectares of lands of the country face degradation problems due to water and wind erosion like water logging, salinity, alkalinity, ravines, etc. In this context, MGNREGA's focus on water and soil conservation, water harvesting, minor irrigation and land development would support the sustainable management of agro-resources in rural areas besides creating green jobs.

An analysis of month-wise wage employment generation pattern indicates that under MGNREGA, the employment generation is comparatively higher during the lean agricultural season (March-June) than the busy (kharif: July-November) agricultural season (Figure 2).

Figure 3: Month-wise Person Days Generated (2008-09 to 2010-11)



The demand for work under MGNREGA shows clear seasonal fluctuations with a larger demand in the agricultural off-season months (Table 7). Average person-days generated during 2009-10 and 2010-11 ranged between 54 days to 47 days per annum, respectively. In the calendar year 2010-11, 56.5 per cent of total person-days were generated during agricultural off-season months (March-June) and 25.0 per cent generated during agricultural season months (July-November) against that of 30.2 and 41.4 per cent during 2009-10. The pattern of employment generation under MGNREGA in a particular year indicates that the works generated through the employment guarantee scheme does not weaken the availability of farm labour. Further, a large chunk of employment generation under MGNREGA, during the lean agricultural season months, ensures supplementary wage employment⁴ avenues in rural areas.

⁴ Labour Bureau's Rural Labour Enquiry Reports points out that on an average, male and female wage employees in rural areas could not work for as many as 36 and 32 days during 1999-2000 and 46 and 40 days, respectively, during 2004-05 due to non-availability of works.

**Table 7 : Average Person-days Generated during the last three years
(2009-10 & 2010-11)**

Indicator	2009-10	2010-11
Average annual person-days generated (Numbers)	54	47
Percent person-days generated in agricultural off-season months (March to June)	30.2 (16.3)	56.5 (26.5)
Percent person-days generated in the agricultural season months (July to November)	41.4 (22.3)	25.0 (11.7)

Note: Figures in the parentheses are average number of person-days generated during the respective periods.

Source: Ministry of Rural Development, Government of India

V. MGNREGA, RURAL WORKFORCE AND WAGES

The MGNREGA, often is attributed to drawing out agriculture labourers from agricultural operation due to its inherent nature of guaranteeing wage employment at a minimum price. There is an apprehension among the farmers about the shortage of agriculture labourers for excessive labour movement from agricultural operations to MGNREGA works thereby impacting cost of cultivation and affecting farming viability adversely. In this backdrop, this section analyses the labour force, workforce and employment in rural India and the wages in public and private works (works other than public works) in rural areas.

5.1 Labour Force, Workforce and Employment

NSSO surveys on labour force⁵, workforce and unemployed as per the Usual Principal and Subsidiary Status indicate that the labour force has declined from 470.14 million in 2004-05 to 469.87 million in 2009-10 whereas in the period 1993-94 to 1999-2000 and 1999-2000 to 2004-05, the same had increased by 25 million and 63 million, respectively (Table 8).

⁵ Labour force indicates persons seeking for work. Here, the person seeking work can either find employment or remain unemployed. Thus the 'labour force' can be calculated by aggregating 'workforce' and 'unemployed'.

**Table 8: Labour Force, Workforce and Unemployed
(Usual Principal and Subsidiary Status)**

	1993-94	1999-00	2004-05	2009-10
In million				
Labour Force	381.94	406.84 (1.30)	470.14 (3.11)	469.87 (-0.01)
Workforce	374.45	397.88 (1.25)	458.99 (3.07)	460.17 (0.05)
Unemployed	7.49	8.96 (3.9)	11.15 (4.8)	9.70 (-2.6)

Note: Figures in the parentheses are annual growth rates during the period of survey vis-à-vis the previous survey period.

Sources: Rangarajan et al., 2011 and NSS report (66th Round) on Key Indicators of Employment and Unemployment in India, 2009-10

Table 8 indicates that in the period 2004-05 to 2009-10, the annual growth rate of labour force and number of unemployed declined whereas there was a slow but positive growth in the total workforce during the same period. An analysis of distribution of workforce across categories of self-employment and wage employment highlights that during 1993-94 and 2009-10, there is a decline in self-employment (Table 9). However, the casual wage employment has increased by 3.1 per centage points from 35.5 per cent in 1993-94 to 38.6 per cent in 2009-10. This indicates growing casualization of workforce. The public wage employment programmes like MGNREGA being a demand driven employment programme has the capacity to absorb the vast magnitude of casual labour present in the rural labour market and can play the role of an employer of last resort (Kamath, 2010) at a basic minimum wage.

**Table 9: Distribution of Rural Workforce (UPSS) by Employment Status,
1993-94 to 2004-05**

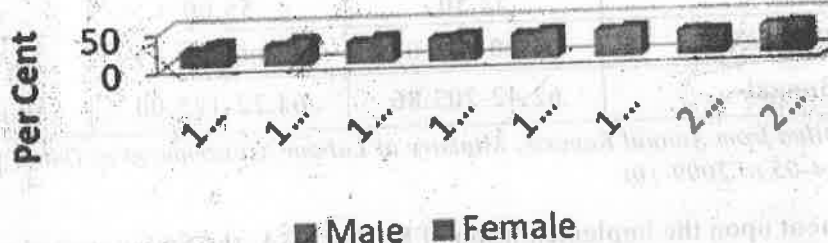
Employment Status	1993-94	1999-2000	2004-05	2009-10
1. Self-Employed	57.96	55.76	60.2	54.2
2. Wage workers	42.04	44.24	39.9	45.9
i) Regular	6.45	6.83	7.1	7.3
ii) casual	35.56	37.41	32.8	38.6

Note: UPSS is Usual Principal and Subsidiary Status of employment

Source: Compiled from NSSO employment and unemployment surveys, various issues

The type of employment generated between the periods 1999-2000 to 2004-05 and 2004-05 to 2009-10 have differently impacted the employment status of the workforce. In 2004-05, self-employment grew significantly with a steep fall in casual employment. The situation reversed in 2009-10. Further, the gender-wise breakup of the casual labour in the total employment during 1972-73 and 2009-10 indicates that except 2004-05, there is an incremental male and female casualization of rural workforce (Figure 4).

Figure 4: Percentage Distribution of Rural Casual Labour Employment by Sex



5.2 Minimum Wage and MGNREGA Wage

MGNREGA seeks to provide each person working under the Act, the level of wages fixed by the State Government for agricultural labourers under the Minimum Wages Act, (MWA) 1948. MWA states that wages paid to labourers shall not be less than the minimum wage rate fixed/notified by the States concerned. The Act earlier stipulated that the statutory minimum wage rates to be applicable under MGNREGA should not be below Rs. 60 per person-day. This stipulation has further been enhanced to Rs. 100 per person-day in January 2009 and linked to Consumer Price Index – Agricultural Labour with effect from January 2011. Across the States, the minimum wages have been fixed at about Rs 100 per day per person under the Act. However, there is a huge variation in the statutory minimum wage rates prevailing across States (Table 10).

Table 10: Range of Minimum Wages for Unskilled Workers in Different States

Sl. No.	States	Range of Minimum Wages Per Day (in Rs.)		
		Pre-MGNREGA	Post-MGNREGA	
		2004-05	2007-08	2009-10
1	2	3	4	5
1	Andhra Pradesh	45-110	45.00-128.00	58.25-163.00
2	Assam	50-63	48.00-97.00	54.80-79.60
3	Bihar	45.18-64.62	66.00-75.00	75.00-89.00
4	Haryana	87.29-88.29	94.00-95.00	138.00
5	Kerala	67.14-169.04	72.00-189.00	72.00-328.80
6	Maharashtra	45.00-169.04	45.00-155.22	46.13-201.30
7	Meghalaya	70.00	70.00	70.00
8	Orissa	52.50	55.00	70.00
9	Uttar Pradesh	58.00-105.07	58.00-104.41	76.31-115.87
10	West Bengal	62.42-203.86	64.22-125.00	57.01-126.42

Source: Compiled from Annual Reports, Ministry of Labour, Government of India, various issues (2004-05 to 2009-10)

Consequent upon the implementation of MGNREGA, the States started revising wage rates upward. In the post-MGNREGA period, States re-notified their minimum wage rates. Out of the ten States under reference, the lower range of the wages was below Rs. 60 per person days in six States. The minimum and maximum value in the range of wage rate varied extensively in case of the States of West Bengal, Maharashtra, UP, Kerala and Andhra Pradesh during the pre-MGNREGA period. The same situation continued even after the re-notification of minimum wage rates in these States.

While the upward revision of State-specific minimum wage rates are frequented only after the enactment of the rural employment guarantee Act, one cannot infer conclusively the significant impact of this Act on the upward movement of the agricultural/minimum wages. This is because this programme generates a meagre number of workdays during agricultural busy season months.

5.3 Wages in Public and Private Works

Wage payments to casual workers estimated from 2009-10 NSSO survey show that for works other than public works (non-MGNREGA and other Public works), both male and female wages are lower in agriculture vis-à-vis other sectors. The female wages are lower

than the male wages across all industry groups. The 66th Round NSS report on Employment and Unemployment has also indicated that in public works other than MGNREGA, the wage rate for male casual labour is Rs. 98.33 where as for MGNREGA works and for works other than public works were Rs. 90.93 and Rs. 101.53, respectively (Table 11).

Table 11: Average Wage/Salary Earnings (in Rs)/day received by Casual Labourers of age 15-59 years, 2009-10

Sl. No.	State/UT	MGNREGA	Male			Female		
			Notified	Public Works	Private	Public Works	Private	
			Wage Rate	MGNREGA	Others	Works	MGNREGA	Others
1	2	3	4	5	6	7	8	9
1	Andhra Pradesh	121	88.06	91.28	115.41	82.66	85.44	75.71
2	Assam	130	NA	95.47	94.38	NA	85.71	74.87
3	Bihar	120	100	103.32	81.03	NA	102.33	65.81
4	Chhattisgarh	122	97.17	88.89	70.83	98.43	82.57	65.49
5	Gujarat	124	78.03	90.51	87.31	70.67	87.23	70.99
6	Haryana	179	NA	104.84	146.08	NA	110.4	99.12
7	J & K	121	113.48	106.18	157.46	NA	NA	206.54
8	Jharkhand	120	96.05	119.28	103.61	NA	84.72	82.17
9	Karnataka	125	110	NA	96.91	108.9	NA	62.77
10	Kerala	150	NA	125.44	226.6	118.81	125.47	119.31
11	MP	122	92.5	80.88	74.46	100	70.54	58.13
12	Maharashtra	127	118.18	94.98	86.01	71.77	100	58.22
13	Orissa	125	107.62	83.42	81	120	NA	59.06
14	Punjab	153	NA	153.97	133.46	NA	102	91.8
15	Rajasthan	119	83.03	104.87	132.29	84.6	92.57	94.31
16	Tamil Nadu	119	84.73	74.52	132.14	86.68	77.84	72.62
17	UP	120	98.92	103.73	97.04	100	100	69.21
18	West Bengal	130	76.25	88.61	87.76	100	82.81	65.94
	All India	—	90.93	98.33	101.53	87.2	86.11	68.94

Note: (a) NA: Not Available (b) Private works are works other than public works including MGNREGA works

Source: NSS report (66th Round) on Key Indicators of Employment and Unemployment in India, 2009-10 & Govt. of India Gazette Notification (Extraordinary) dtd. 14.01.2011

Table 11 indicates that the male female gap in MGNREGA wages is found to be the lowest (i.e. Rs. 3.73) followed by wages in public works other than MGNREGA (Rs. 12.22) and works other than public works (Rs. 32.59). This reflects that with a lower wage rate, MGNREGA works have ensured relatively more gender parity in wage distribution in rural areas. Further, for female MGNREGA workers were offered the highest wage rate of Rs. 87.2 against Rs. 86.11 and Rs. 68.94 for public works other than MGNREGA and private works, respectively. The wage gap between MGNREGA and Private works was to the order of Rs. 18.26.

There exists also a wide difference between the actual wages received under MGNREGA works and the notified MGNREGA wage rates. Scholars studying on wage determination processes in rural areas have found that wage rate in agriculture positively influenced by several factors viz., active operationalization of minimum wages in States, wage rate in non-MGNREGA and non-agriculture sectors, extent of irrigation, cropping intensity, education, labour supply and unemployment rate, unionisation of labourers and connectivity of villages with nearby cities/towns (Bardhan, 1977; Barua, 2010). In this context, it will be fallacious to conclude that MGNREGA is pushing up agricultural wage rates in rural areas through the route of enforcement of the State specific notified minimum wages.

VI. MGNREGA – PLANNING AND BUDGETING PUBLIC WORKS

MGNREGA envisages fixing priorities of activities while providing a basic employment guarantee in rural areas. It is mandatory under MGNREGA to formulate action plans and perspective plans prior to implementation. As per Schedule – I of MGNREGA, the focus of the Act should be on activities related to water conservation, water harvesting, flood and drought proofing, irrigation, land development and rural road connectivity.

6.1 Assessing Labour Demand

MGNREGA 2005 has laid down processes for preparation of Labour Budgets⁶ (LBs) which takes into account seasonality aspects in the labour demand and supply. Examination of employment and livelihood opportunities in the respective rural areas is a must to arrive at the exact projection of labour demand in the agricultural slack season in the local areas.

⁶ LB, an advanced labour estimates for execution of a shelf of works in a particular district, entails planning, approval, funding and project execution modalities under MGNREGA. Sub-section 6 of Section 14 of MGNREGA mandates the District Programme Coordinator (DPC) under MGNREGA to prepare in December every year a labour budget for the next financial year. LB contains the details of anticipated demand from unskilled manual work in the district and the strategy for engagement of workers in the works covered under the programme. LBs are prepared in accordance with the provisions made in sections 13 to 16 of MGNREGA 2005

To make the LB preparation process robust and agriculture friendly, MGNREGA envisages an active participation of the three-tier self-government. The implementing mechanism under MGNREGA advocates free participation to democratically discuss local issues and problems, identify the ways and means for their resolution and demand such facilities which could improve the quality of life of the village community at large. The Panchayats at district, intermediate and village levels are the key authorities for planning, strategizing, recommending and executing works under MGNREGA. The District Programme Coordinator (DPC), at the district level, consolidates the Plans and proposals from other implementing agencies duly approved by GPs/Block Panchayats and forward a consolidated plan to the District Panchayat for examination and approval of block-wise shelf of projects. At this juncture, extensive examination should be made on the planned works, labour demand projection to accomplish the planned activities and the consequent budgetary requirement to make the labour budget under MGNREGA a realistic estimate. To make the whole process of activity selection realistic, the district should make an assessment of labour demand, identification and prioritisation of works, seasonality aspect of local occupation and their estimated cost (wages and material) as indicated in Gram Panchayat Development Plans.

Panchayats also need to ensure an active involvement of national and State level experts like engineers, architects and planners is a must in identifying land masses needing proper management, arriving at topographic specificities, effective flood/drought proofing methods and disaster management measures. Since there is an essential need for an integrated management of flood and drought forecasting services in India, providing an agency of experts in this field under the Act could ensure sustainability of activities and optimisation of the resource utilisation at the grass-root level.

6.2 Convergence with Agriculture

Land and watershed development, water conservation, flood and drought proofing activities promise to contribute greatly to the economic and ecological development of rural areas, particularly in drought-prone and dry land areas. However, before the extension of MGNREGA to the hitherto untreated regions, efforts should be made to determine the priorities of permissible activities designed for creating durable community assets. Thus, the objective of asset creation should take into account local needs and priorities. Further, construction of assets like irrigation, flood protection, water conservation etc., should tap the funds budgeted by sectoral departments of the States concerned. Though GoI has initiated its effort in converging MGNREGA with other ongoing programmes of Ministry of Rural Development, Ministry of Agriculture, Ministry of Water Resources, Ministry of Environment and Forests, Department of Land resources, there is an emerging need to design and implement policy directives on convergence at the district/block/village level with the all-round co-operation of the district/Block level sectoral line departments.

VII. CONCLUSION

The overall expenditure as a percentage of total available funds under MGNREGA showed an improvement during 2010-11 over 2007-08. A few states resorted to more than the prescribed expenditure on materials vis-a-vis unskilled wages. The average person-days employment per household witnessed an improvement during 2009-10 over 2008-09 but decelerated during 2010-11. Very few households who demanded the jobs under MGNREGA could be assured the Act mandated 100 days of employment.

During 2008-09 and 2010-11, there was a sharp increase in the number of works opened under MGNREGA. On an average, 60 per cent of total MGNREGA works were on agriculture related activities viz. water conservation and water harvesting, micro-irrigation and land development. During 2008-09 and 2010-11, while total works under MGNREGA grew by 83.8 per cent, the growth of agriculture related works was 76.5 per cent. MGNREGA's focus on agri-related works will not only be beneficial for improvement of agri-productivity, but it also would support in the sustainable management of agro-resources in rural areas.

In the period 2004-05 and 2009-10, the labour force of the country declined though the workforce experience a marginal increase. An analysis of distribution of workforce across categories of self-employment and wage employment highlights that during 1993-94 and 2009-10, there is a decline in self-employment. The casual wage employment has increased by 3.1 percentage points from 35.5 per cent in 1993-94 to 38.6 per cent in 2009-10. Thus, as an unskilled wage employment guarantee programme, the vast sections of casual labourers would now be a support livelihood system for these growing casual labourers.

The 66th Round NSS report on Employment and Unemployment has indicated that wages in private works are more than the wages in MGNREGA works and public works other than MGNREGA. Gender disparity in wages for MGNREGA works was found to be the lowest (i.e. Rs. 3.73) followed by wages in public works other than MGNREGA (Rs. 12.22) and works other than public works (Rs. 32.59). The difference between the actual wages paid under MGNREGA works and the notified MGNREGA wage rates and the wages for private works and interplay of several important wage rate determining factors in a rural set up, one may not conclusively hold responsible MGNREGA for shortage in the rural labour supply and increase in wage rates. Further research is required to find out the exact extent of inter-relationships between MGNREGA and rural wages.

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MGNREGA and Women Empowerment : An Empirical Investigation in Odisha

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INTRODUCTION

The provision of gainful 'employment for all' was one of the policy goals of India. Accordingly, there have been many programme interventions in this regard particularly since the Sixth Five-year Plan. The major schemes introduced are: National Rural Employment Programme (NREP) 1980-89; Rural Landless Employment Guarantee Programme (RLEGP) 1983-89; Jawahar Rozgar Yojana (JRY) 1989-99; Employment Assurance Scheme (EAS) 1993-99; Jawahar Gram Samridhi Yojana (JGSY) 1999-2002; Sampoorna Grameen Rozgar Yojana (SGRY) 2001-08; and National Food for Work Programme (NFFWP) 2004-08. Although there has been an improvement in employment generation through these programmes in rural areas over the years, some sections of rural population especially those unskilled, casual, manual labourers remained unaffected by these measures. This was mainly because these programmes typically offered only relief-type employment opportunities rather than creating productive, durable assets. Some other limitations of the earlier public wage employment programmes were: poor programme coverage; the majority of beneficiaries did not belong to the neediest group as these programmes had weak self-targeting features; the planning process was top down and there was little community participation in planning; there was no minimum targeted participation of women; there was no ban on contractors in execution of works or use of machinery. Moreover, there was no guarantee of employment for longer period or payment of the minimum wages, which compelled the government to ensure guaranteed jobs for substantial period of a year and minimum wages. However, at the State level, the Government of Maharashtra formulated the Maharashtra Employment Guarantee Scheme under the Maharashtra Employment Guarantee Act, 1977 to provide wage-employment to those who demanded it and, thereby, providing a statutory framework to wage employment programmes.

The National Rural Employment Guarantee Act (NREGA) was enacted in 2005 to reinforce the commitment towards livelihood security in rural areas. Accordingly, the

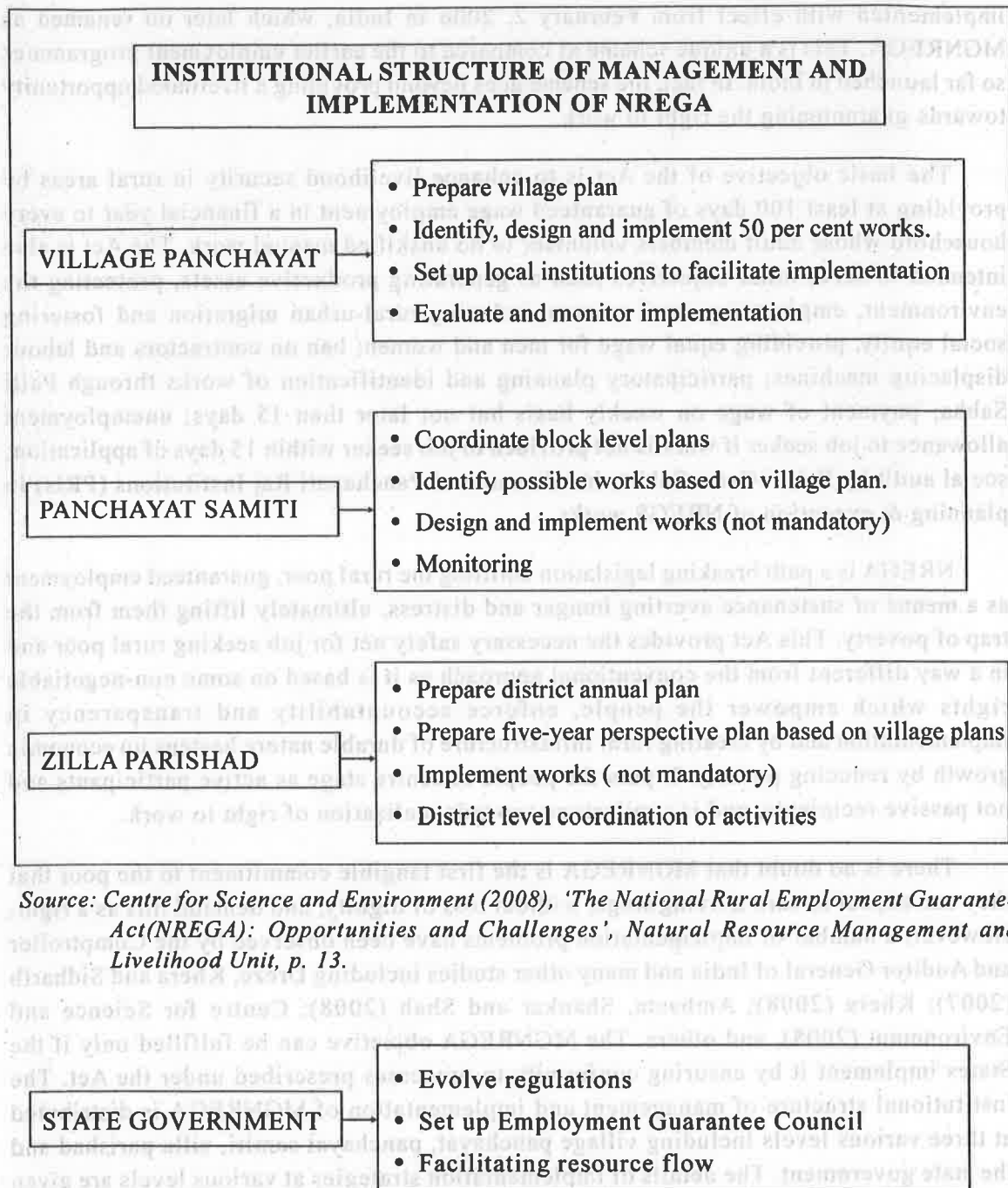
** This is a part of a broader study prepared by the authors on 'A Report on Management of National Rural Employment Guarantee Act: Issues and Challenges'. The authors are indebted to the co-team members late Prof. S.P. Padhi)*

National Rural Employment Guarantee Scheme (NREGS) under the NREGA is being implemented with effect from February 2, 2006 in India, which later on renamed as MGNREGA. This is a unique scheme as compared to the earlier employment programmes so far launched in India. In fact, the scheme goes beyond providing a livelihood opportunity towards guaranteeing the right to work.

The basic objective of the Act is to enhance livelihood security in rural areas by providing at least 100 days of guaranteed wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work. The Act is also intended to serve other objectives such as generating productive assets, protecting the environment, empowering rural women, reducing rural-urban migration and fostering social equity, providing equal wage for men and women; ban on contractors and labour displacing machines; participatory planning and identification of works through Palli Sabha; payment of wage on weekly basis but not later than 15 days; unemployment allowance to job seeker if work is not provided to job seeker within 15 days of application; social audit by Palli / Gram Sabha; involvement of Panchayati Raj Institutions (PRIs) in planning & execution of NREGS works.

NREGA is a path breaking legislation entitling the rural poor, guaranteed employment as a means of sustenance averting hunger and distress, ultimately lifting them from the trap of poverty. This Act provides the necessary safety net for job seeking rural poor and in a way different from the conventional approach as it is based on some non-negotiable rights which empower the people, enforce accountability and transparency in implementation and by creating rural infrastructure of durable nature hastens up economic growth by reducing poverty. It puts the people at centre stage as active participants and not passive recipients, and is a milestone towards realization of right to work.

There is no doubt that MGNREGA is the first tangible commitment to the poor that they can expect to earn a living wage, without loss of dignity, and demand this as a right. However, a number of implementation problems have been observed by the Comptroller and Auditor General of India and many other studies including Dreze, Khera and Sidharth (2007); Khera (2008); Ambasta, Shankar and Shah (2008); Centre for Science and Environment (2008), and others. The MGNREGA objective can be fulfilled only if the States implement it by ensuring conformity to processes prescribed under the Act. The institutional structure of management and implementation of MGNREGA is distributed at three various levels including village panchayat, panchayat samiti, zilla parishad and the state government. The details of implementation strategies at various levels are given in figure-1.

FIG. 1

Source: Centre for Science and Environment (2008), 'The National Rural Employment Guarantee Act(NREGA): Opportunities and Challenges', Natural Resource Management and Livelihood Unit, p. 13.

Significance of MGNREGA in Odisha

Odisha has the dubious distinction of being the poorest state in the country. In 2004-05, the incidence of rural poverty was as high as about 47%. On the top of it, the intensity of rural poverty has also been very high: some 25.2% of poor are reckoned to be 'Very Poor', i.e., below 75% of the poverty line. In other words, about half of the poor population belongs to the 'Very Poor' category. Within Odisha, it is noteworthy that there are significant regional variations in the incidence of poverty: while in the coastal region, it was 27.4%, in the southern and northern NSS regions, it was as high as 72.7% and 59.1% respectively in 2004-05, the three regions contributing 27.1%, 28.9% and 44.0% respectively to the total poor in the state (Panda, 2009).

Second, partly reflecting a low productivity agriculture and low level of organization and bargaining power among agricultural labour, agricultural wages have been much below the statutory minimum, and indeed the lowest among the major states of India.

A third area of serious concern is the high rate of open unemployment that has emerged rather recently. Thus, according to 'current daily status' criterion (which roughly measures the extent of seasonal unemployment in rural areas), in 2004-05, the rate of rural unemployment was a high of 10.2% of the labour force (the fourth highest among 16 major states). This translates into about 3.3 million currently unemployed persons. (Padhi, 2009).

The fourth one is the concentration of ST, SC and the Minorities in the state. The scheduled tribe communities of Odisha contribute substantially to the demographic structure and social fabric of the state. There are 62 tribal communities, with a total population of 8.14 million (Census of India 2001), who belong to Austro-Asiatic, Dravidian and Indo-Aryan language families. Out of them, 13 tribal groups have been identified as primitive. Almost 44.21 per cent of the total land area in Odisha has been constitutionally declared as Scheduled Area. Except for the coastal belt, most of the districts of the State are either partially or fully declared as Scheduled Area. The present Scheduled Area of the State includes six districts that are fully and five districts that are partially within it. The districts of Mayurbhanj and Sundargarh are the full scheduled districts while Keonjhar is the partially scheduled district in the northern zone of the state. Similarly, Koraput (undivided) is a full scheduled district, while Kandhamal and Kalahandi are partial scheduled districts in the southern zone of the state. Out of 314 Community Development Blocks of Odisha, 118 (37.3 per cent) blocks are covered under the Tribal Sub-Plan (TSP). The tribal population of Odisha constitutes 22.08 per cent of the total State population, while that of scheduled caste population share around 16 per cent (2001).

Finally, the extent of seasonal distress migration is known to be very significant, particularly from districts where agriculture is drought-prone and absorption of labour in agriculture and rural non-farm activities is quite inadequate.

For all the above reasons, one would expect that MGNREGA, as a demand-driven, guaranteed public employment programme, would generate a high level of demand for work under the MGNREGA provisions in a state like Odisha.

Objectives of the Study

The main objective of the present study is to examine the impact of NREGA on women in Odisha. The specific objectives are:

- To find out the level of awareness of MGNREGA provisions by the women.
- To examine the level of participation in MGNREGA programme by the women.
- To find out the impact of MGNREGA programme on Women Empowerment.
- Finally to provide certain policy suggestions for strengthening the functioning of MGNREGA and the benefits to the rural women.

Methodology

The study has adopted four-stage sampling method. In the first stage, districts are selected. Blocks are selected in the second stage. Gram Panchayats (GPs) are selected in the third stage. Households being the ultimate sample are selected in the last stage. The selection of the districts is made from the districts under first phase of MGNREGA implementation in Odisha. The sample districts are selected based on geo-physical zones /characteristics of the state to cover the diverse regions and differences in NREGS implementation. Accordingly, Odisha has been divided into four geo-physical zones, viz. Coastal Plains, Central Tableland, Northern Plateau and Eastern Ghat. One district has been chosen from each zone for survey. We have selected Ganjam district from the Coastal Plains as this is the only district from this zone coming under the first phase of implementation. Dhenkanal district has been chosen from the Central Table land due to its developing agriculture. Sundargarh district has been taken from Northern Plateau due to its backward agriculture and tribal contraction. Lastly, Nuapada district has been selected from the Eastern Ghat due to its backward agriculture and large scale migration.

The blocks in the selected districts are selected on the basis of a single indicator, i.e., person days of employment per household. In order to get a better picture of the NREGS implementation performance, two blocks, one each from top and bottom of the scores are selected in the sample district. The selected blocks are: Balisankara and Lephripara from Sundargarh district, Hinjilikatu and Sanakhemundi from Ganjam district, Dhenkanal Sadar and Parajang from Dhenkanal district, and Khariar and Sinapali from Nuapada district.

The Gram Panchayats (GPs) are also selected on the basis of single indicator, i.e. number of person-days of employment per household. In order to get a better picture of

the NREGS implementation performance, two GPs, one each from top and bottom of the scores are selected from the sample blocks.

The households are selected by systematic sampling without substitution from each GP. A total number of 20 participant households have been selected from each GP making a total of 320 sample participants. The data have been collected during the period 2008-09 and the information has been collected from the households for 2007-08.

The selection of districts, blocks, GPs and number of households are presented in Table 1.

DATA ANALYSIS :

Extent and Level of Awareness

One distinctive feature of MGNREGA is that it provides opportunity for community participation in the planning process. It also provides for elaborate transparency and safeguards for ensuring guaranteed employment at minimum wages in a time-bound manner. Given the essentially demand-driven nature of the programme, the question of extent and level of awareness regarding MGNREGA provisions becomes an important aspect of successful implementation of the programme. This is because, awareness both influences and is influenced by the efficiency of planning and implementation measures. Awareness also influences participation in MGNREGA directly and indirectly through improved planning and implementation practices.

An attempt has been made here to find out the level of awareness among women regarding provisions of the programme, which could help empower them by participating in the programme. It has been discussed here their awareness with respect to various provisions therein like possession of job card, days of work, time limit, wages, work site facilities and medical facilities, time limit for providing employment, reservation of employment for the women, types of Committee and their role, entitlements, differential wage rates according to the distance from the village etc. The findings reveal that a significant proportion of women/female have awareness regarding possession of job card (100%), days of work (66.04%), entitled to earn minimum wage (90.57%), entitled to timely payment (81.13%), no discrimination of wages between men and women (92.45%), unemployment allowance (64.15), Provision of extra wages beyond 5 kms of work (84.91), machinery should not be used in the work (83.04%), facilities like first aid (58.49%), drinking water (94.34%), and shade and floor sheet for workers (60.38%). However, the awareness of the women/female is very low with respect to the time limit for providing job card (5.66%), time limit for providing employment (16.98%), share of women in the job seeking group i.e. one third of job seekers should be women (11.32%), role of vigilance and monitoring committee (28.30%), employment guarantee scheme committee (1.89%),

at least one fourth wages to be paid on cash (00%), payment of wages to women deputed to look after children in the work site (13.21%), amount of unemployment allowance (35.85%), amount of work beyond 5 kms of work (15.09%), crèche facilities in the work site (24.53%), free charge for medical treatment (28.30%) and payment of allowance if hospitalized (1.89%), and payment of ex-gratia death (00%). The inter-district variations with respect to the level of awareness of the women on different indicators show that there is a very poor level of awareness in the districts of Dhankanal and Sundargarh. The lack of knowledge like crèche facilities is most disappointing as this might lower down the participation of women in MGNREGA work. As regards the awareness level of the males the data reflects that the male have very low level of awareness with respect to the time limit for providing job card (days) (9.74%), provision of employment guarantee scheme committee (8.24%), provision of one fourth wage in the form of cash (0.75%), payment of wages to women deputed to look after children in the work site (5.24%), provision of crèche (11.61%), free of charge for medical treatment (8.99), payment of allowance if hospitalized (0.75%) and payment of exgratia death (1.50%). However, compared between the men and women regarding the awareness level of different provisions, we observed a mixed result.

The ethnic composition and the type of social sector development in the field of education and health couple with geographical constraints influence the awareness level of the rural women on MGNREGA. The functioning of Gram Panchayat and Panchayat Samitis in building the awareness on several aspects of this Act cannot be ruled out, however, they have largely failed. The district of Sundargarh and Dehenkanal being tribal dominated districts have poor awareness level which is influenced by their poor educational attainment and poor functioning of gram panchayat and panchayat samitis. The geographical constraints create physical impediments in the flow of information and involvement of the villagers and rural women in particular. In contrast, Ganjam district with caste based ethnic composition and high level of educational attainment resulted higher form of awareness resulting in high access to different service institutions of the government. The political awareness along with the rights understanding among the households helps rural women to have more clarity on various provisions of MGNREGA. The physical accessibility of the villagers to the MGNREGA service institutions and mechanisms of implementation helps the processes of awareness level of the rural women.

Participation of Women in MGNREGA

As women's participation is one of the important targeted objectives of MGNREGA, it is important to see the extent of women's participation in the programme. From Table 2, it is striking to find that it is only in Ganjam district that there is a very significant participation of women in MGNREGA: nearly half of all workers are women, and it is

more than half for the lower participation range of 26-50 days and the two highest participation ranges of 76-100 days and 100+ days. Thus, average number of days of employment per worker is higher for women than for men workers, and the share of women workers is 54.77% person days of total number of person days generated. In Nuapada too, the extent of women's participation and their share in total employment are much higher (39.28%) than the targeted 30%. In case of Dhenkanal the overall participation of women was to the extent of 24.83%, much below the expected level of participation. Most of the women were engaged below 50 person days and none have gone beyond getting engagement above 50 days. Women have shared 17.84% of the total person days created under NREGA during the year. In Sundargarh district women participation in NREGA wage employment was little above the 30% reservation for them. i.e. 33.90%, on the other hand, while women's participation is close to the targeted 30%, because of restricted duration of participation, women workers have very low share in total number of person days of employment to the tune of 13.87%.

When we look at gender wise distribution of households by duration of employment (Table 3), women's participation is restricted to the lowest participation ranges in all the districts except Ganjam. Around 5.56% women have got wage employment for more than 100 days, while 9.26% have contributed between the ranges of 76 to 100 days of wage employment to the family. In total, one would expect that, while in Ganjam district, women workers in MGNREGA are making a significant contribution to the household economy. In Dhenkanal district only 11.11% women have the benefit of getting wage employment to the extent of 26 to 50 person days, while majority of the women are the beneficiary to the extent of less than 25 person days, which seems to be quite insignificant. In Sundargarh district around 98.33% women got wage employment for a period less than 25 days per annum, while only 1.67% had employment between 26 to 50 person days. In Nuapada district the magnitude of women participation was quite high who have got wage employment less than 25 days. Except Ganjam, in other three districts, women engagement in NREGA wage work was almost not distinct rather they are merely supplementing household income to a limited extent. This poor participation of women in duration of participation directly corroborated to the poor awareness level of the women about the various provisions of NREGA. We shall take up in greater detail the question women's empowerment under MGNREGA in the next section.

The ethnic composition of the village communities is one of the indicators of successful participation of rural women in wage employment market. In Ganjam district women participation is comparatively satisfactory because of its caste based household composition. Around 65 per cent women in Ganjam district were belonging to scheduled caste categories who are basically wage earning caste groups. Economic constraints along with the aspiration of these households stimulates them to avail wage labour under

MGNREGA. Occasional migration of caste women in Ganjam district to nearby urban centers helped them to demand for wage labour in their villages. In Dhenkanal and Sundargarh districts non-exposure of rural women who are mostly tribal groups with low expectations did not motivate them much to demand and participate in wage employment under MGNREGA. However, the fact remains that women participation in wage employment under MGNREGA is very meager even in Ganjam district as per the guideline of the Act.

Impact on Women Empowerment

MGNREGA stipulates that priority should be given in allocation of work in order to ensure that at least one-third of all MGNREGA participants are women. In the case of four districts of our study, we have seen (Table 3) that the percent of female workers in total NREGA participants has been as follows for different districts and for Odisha (four districts): Ganjam – 49.77%; Dhenkanal – 24.83%; Sundargarh – 33.90%; Nuapada – 43.48%, and Odisha – 39.28%. Thus, except for Dhenkanal district, the above mentioned NREGA stipulation is fulfilled. However, except for Ganjam district where NREGA employment generated per female worker has been 32.72 days, in the other three districts it has been less than 10 days. What is noteworthy in the case of Ganjam district is that amongst those NREGA participants who have worked for 76-100 days, females constituted 52.63%, and amongst those who have worked for more than 100 days, females constituted 66.67% (Table 3).

Another noteworthy aspect of female work under MGNREGA from the point of view of women's empowerment is that, for all the four districts taken together, 71% of female NREGA workers kept their earnings with them (the highest being 78% in Ganjam district and the lowest being 58% in Sundargarh district) – a factor which has an immediate bearing on household expenditure decisions. This indicates that for the rural women when compared with their counterpart it seems day to day household expenditure is the concern irrespective of ethnic and geographical background of the households.

The extent of female labour absorption is expectedly the highest in Ganjam district at about 9% of total labour time, which is 2.47%, 0.99% and 2.34% in case of Dhenkanal, Sundargarh and Nuapada districts respectively. When one compares with the engagement of women in non-NREGA work the data indicate that Ganjam district has less employment opportunity to the extent of 18.77%, while this was reported marginally more in other three districts. The status of self employment of the women was also discussed. The data reflects that around 36.29 per cent of the total employment days were generated through self employment by the women. A district wise look into the self employment day's status of the women shows that in case of Sundargarh (40.50%) and Nuapada (40.86%) number of employment days was highest even above the all total. This is basically due to the

availability minor forest resources spread over different seasons. The unemployment situation of the women in study district shows that around 39.14% unemployment days were observed in total, which was highest in case of Dhenkanal (46.06%), followed by Ganjam (40.49%), and Sundargarh and Nuapada. This goes up to 16.13% during the Rabi season. Even though labour use under MGNREGA is much less in the other districts, the extent of female unemployment remains high in Ganjam for all seasons, while in Rabi season, it is the lowest. The details of all these indicators with respect to the working days of the women in different agricultural seasons are reflected in table (Table-4).

Turning now to NREGA and non-NREGA wage income of female NREGA workers (Table 5), we get an idea about the extent of women's income contribution to household. Thus, for all the four districts taken together, women NREGA workers contribute as much as 41% of total NREGA income (which goes up to about 55% in the case of Ganjam district), which is very meager in case of Sundargarh (7.73%), followed by Dhenkanal (23.67%). Since female non-NREGA wage income is also significant relative to total NREGA income, the share of female wage income in total household wage income turns out to be about 29% for all the districts taken together and which goes up to more than 41% in the case of Ganjam district. Female wage income to the total household wage income was reported lowest (14.86%) in case of Sundargarh and followed by 22.50% in case of Dhenkanal. Rural women in Sundargarh, Nuapada and Dhenkanal districts particularly the tribal women are less acquainted with the structured guidelines of MGNREGA and delay in wage payment under the scheme.

Summary and Conclusion

As this study has been carried out for four districts of Odisha, the findings are based on the observed inter-district differences, and on intra-district gender differences.

Awareness being a critical factor because of the employment guarantee under NREGA, with its associated entitlements and transparency safeguards, it is found that the extent and level of awareness is rather poor among the women in all the four districts of study except Ganjam where it is moderately high not only for the sample population as a whole but also for different socio-economic groups within it. The ethnic background, quality functioning of the gram panchayat, panchayat samiti, geographical constraints and migration of women play very important role in determining the level of awareness of the women.

The extent of participation in MGNREGA in the case of women groups is found to be proportionate to their respective shares in the district population. The extent and duration of participation in NREGA reveals that while to a certain extent the self-targeting nature of MGNREGA is fulfilled, there is a fairly significant extent of exclusion and restricted access to MGNREGA employment in the case of women in two of the four

districts of study. Only in Ganjam district there is a very significant participation of women in NREGA. The average number of days of employment per worker and the share of women workers are higher for women than for men workers. In Nuapada too, the extent of women's participation and their share in total employment are much higher than the targeted 30%. In Dhenkanal and Sundargarh districts, on the other hand, while women's participation is close to the targeted 30%, because of restricted duration of participation, women workers have very low share in total number of persondays of employment per household generated.

When we look at genderwise distribution of households by duration of employment, women's participation is restricted to the lowest participation ranges in all the districts except Ganjam. Thus, one would expect that, while in Ganjam district, women workers in MGNREGA are making a significant contribution to the household economy, in the other three districts; they are merely supplementing household income to a rather limited extent. Sundargarh being the tribal dominated district needs a special approach for implementing NREGA programme. The low literacy level and their limited world knowledge have minimized the women participation to a greater extent when compared with their male counterpart. The geographical character and societal needs of the region are influencing a lot in the implementation of any mega programme like MGNREGA. Therefore, contextual constraints and requirements are to be taken into account on priority basis, while implementing this programme.

MGNREGA is also providing a platform for empowering women by putting purchasing power in their hands and thereby giving them greater control over household expenditures. For the four districts of our study taken together, women constitute about 40% of all participants, though on an average they worked for only 16.6 days. But women participating in MGNREGA works contributed nearly 29% of household wage income.

Policy Recommendations

Partly based on the empirical findings for four districts of the present study and partly based on similar experiences gained from evaluation of NREGA in other parts of the country where it has been more successful, as well as taking off from some broader issues flagged at the beginning of this study, the following policy recommendations are in order.

1. For an essentially demand-driven programme such as NREGA, awareness generation is perhaps the key to effective planning and implementation of the programme, not only to create conditions for articulation of demand for work (as well as other entitlements), but also for facilitating women participation and decentralized planning, and thereby realize the developmental potential of NREGA through appropriate selection of productive assets useful for the community. In

this, district administration should work with PRIs and civil society organizations, in a proactive and coordinating role processes. There is a lesson or two to be learnt from the good practices adopted in the case of Ganjam district. This is relevant particularly in the context of the other three districts of our study where NREGA is virtually a non-starter in terms of person-days of employment generated per household. The historic opportunity which NREGA provides for being used as a pivot around which the rural poor can be mobilized and organized should not be lost sight of. Awareness generation in the context of NREGA is also quite essential for ensuring transparency and accountability, which the NREGA operating framework amply provides for, unlike earlier wage employment generation programmes.

2. The presently guaranteed employment of 100 person-days per household needs to be given an immediate relook; it should in fact be regarded as the minimum. To start with, the same should be increased to at least 200 person-days per household. This makes sense and assumes significances for the following reasons: a) As we have seen, the present contribution of NREGA in the context of the overall extent of underemployment of women and their seasonal unemployment in rural areas is rather meager, and NREGA has to contribute a lot more in order to make a significant difference to labour absorption, and move towards near full employment. b) We have also seen that NREGA need to make available a much greater and predictable number of days of employment – 155 days per annum according to one estimate which we have cited in our study – in order to be able to reverse seasonal distress migration by offsetting the ‘pull’ factors; and c) By increasing the scale of employment guarantee for a household, it creates an independent opportunity for female workers in the household to work longer under NREGA than the meager number of days they are working at present in our study area, as we have seen, and thereby remove the likely sex selective adverse effect of possible rationing of the present 100 person-days of employment within a household.

However, in order to operationalise the much larger scale of employment guarantee, NREGA would require a much more comprehensive and stronger professional support structure, and a larger allocation of funds (which has been thankfully made in the budget of 2009-10).

As a matter of fact, it has been recognized that NREGA Operating Guidelines is not very clear regarding the definition of a household, but nevertheless do suggest that ‘... adult children, even if living under one roof with the parents, are entitled to 100 days of work, independently of the parents’ (Mehrotra, 2008, 31). It is time the individual entitlements of 100 days of work is formalized in operation, as is desirable for ‘very

poor' households (that is, those below 75% of the official poverty line and who constitute 50% of the poor in a state like Orissa, as per official statistics).

3. Concern has often been expressed over sometimes inordinate delay (upto 2 years!) in NREGA wage payments in many parts of the country. In our study area, we have seen that there has been delay upto 26 days. This can be a strong disincentive for the predominantly casual labourers particularly women working under NREGA who are used to receiving daily or weekly wages, albeit lower than NREGA wages.

Even under NREGA dispensation, it is not impossible to make wage payments within a week of completion of work, as Andhra Pradesh has shown. 'How does this happen? By the last (sixth) day in a week's work, the measurement sheets and muster rolls of the entire week are closed and reach the mandal (sub-block) computer centre. The next day, the muster data are fed into the computer. On day eight, the pay order is generated by the computer and the cheques are prepared. By day ten, these cheques are deposited into the post office accounts of workers. The next day cash is conveyed to the post office so that on days 12 and 13, workers are able to access their wages from their accounts.

4. Another major policy issue under NREGA is the rationalization of wage structure, particularly the task or piece rate wage system based on the outdated 'standard schedule of rates' (SSR) evolved in the context of earlier wage employment and public works programmes which allowed both contractors and machines. If SSR are not reformed under the new NREGA regime based on scientifically established productivity norms under different ecological and geomorphological conditions, these can – and do – militate against payment of minimum wages, particularly to women. The present wage determination formula, there is evidence to suggest, also tends to militate against more productive and more urgently required water/soil conservation and land development works and introduce a bias towards rural connectivity works like rural roads (see CSE, 2008, pp.31-34). In the long term, rationalization of the wage structure under NREGA is going to make it sustainable by not only promoting demand for work and creation of productive assets, but also greater community participation in planning and implementation.

5. Under the NREGA dispensation, with its mandated 60:40 ratio of unskilled wage costs to material costs (including cost of skilled/semi skilled labour), there is a likely conflict between wage employment creation on the one hand, and creation of quality, productive and durable assets on the other.

There seems to be two signs of this. One is that, in many states, material costs constitute much less than the prescribed 40% (CSE, 2008, p.44). Second, there is a large number of incomplete works (where delays in approval; lack of funds of course play a role). While this is a common problem in many parts of the country, it should be pointed

out here that, as per a recent newspaper report (The Samaj, Cuttack, Sunday, April 19, 2009), in Sundergarh district (one of the sample districts of the present study), some 7659 NREGA works have remained incomplete which were taken up during 2008-09 fiscal. Out of this, 2205 were water harvesting and water conservation works; 2440 were works relating to renovation of traditional water bodies, and 2310 were rural connectivity works. Such incomplete works are likely to prove totally unproductive.

It is recommended, therefore, that the 'minimum ratio' of 60:40 should have an element of flexibility in the interest of creation of quality assets say, by restricting such flexibility to 'preferred works' identified on the basis of region-specific developmental requirements, with the State Employment Guarantee Council in coordination with the district administration playing the oversight role, particularly in respect of use of machines, skilled labour, etc., while not compromising the payment of minimum wages. Proper planning and adequate provision of funds should also be ensured.

6. Maintenance of assets created under NREGA is a very critical issue because NREGA does not provide for maintenance as a permissible activity. This has serious consequences threatening the long-term viability and sustainability of NREGA itself (see CSE, 2008, pp.43-46).

It is recommended that planning for convergence of NREGA with related ongoing developmental schemes of both the central and state governments should be done from the point of view of maintenance of NREGA and non-NREGA assets, and this should be built into the village annual plan. Institutional mechanisms for maintenance of assets should be put in place at village/G.P. level.

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Table 1 : Selection of Districts, Blocks, GPs and Households

Districts	Blocks	Gram Panchayats	No. of selected Participants Households
Dhenkanal	Dhenkanal Sadar (10.13)	Manipur	20
		Chaulia	20
	Parajang (3.49)	Badajhara	20
		Muktapasi	20
Ganjam	Hinjilikatu (27.14)	Saru	20
		Darubhadra	20
	Sanakhemundi (12.16)	Khalingi	20
		Kankarada	20
Nuapada	Khariar (13.09)	Chindaguda	20
		Birighat	20
	Sinapali (7.91)	Singjhar	20
		Nuapada	20
Sundargarh	Balisankara (11.38)	Tileikani	20
		Tildega	20
	Lephripara (5.22)	J.Raibaga	20
		Jhurinal	20

Note: Figures in the parentheses are person days of employment per household. 2008-09

Table 2 : Gender wise Share (%) of Participants by Duration of Participation

Sex of the Respondent	Duration of NREGA employment						Avg. No of days of employment per worker	% of person-days
	0-25	26-50	51-75	76-100	100+	All		
Ganjam District								
Male	53.73	42.22	60.00	47.37	33.33	50.23	26.78	45.23
Female	46.27	57.78	40.00	52.63	66.67	49.77	32.72	54.77
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	29.74	100.00
Dhenkanal District								
Male	73.55	76.47	100.00	100.00	0.00	75.17	12.80	82.16
Female	26.45	23.53	0.00	0.00	0.00	24.83	8.42	17.84
TOTAL	100.00	100.00	100.00	100.00	0.00	100.00	11.71	100.00
Sundargarh District								
Male	63.58	92.86	100.00	0.00	0.00	66.10	11.04	86.13
Female	36.42	7.14	0.00	0.00	0.00	33.90	3.47	13.87
TOTAL	100.00	100.00	100.00	0.00	0.00	100.00	8.47	100.00
Nuapada District								
Male	56.44	58.82	33.33	100.00	0.00	56.52	9.88	60.72
Female	43.56	41.18	66.67	0.00	0.00	43.48	8.31	39.28
TOTAL	100.00	100.00	100.00	100.00	0.00	100.00	9.20	100.00
ODISHA (Four Districts)								
Male	61.38	59.14	68.42	54.55	33.33	60.72	15.11	58.48
Female	38.62	40.86	31.58	45.45	66.67	39.28	16.58	41.52
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	15.69	100.00

Source: Field Survey, 2008-09

Table 3 :Gender wise Distribution (%) of Participants by Duration of Participation

Sex of the Respondent	Duration of NREGA employment (No. of Days)					
	0-25	26-50	51-75	76-100	100+	All
Ganjam District						
Male	66.06	17.43	5.50	8.26	2.75	100.00
Female	57.41	24.07	3.70	9.26	5.56	100.00
TOTAL	61.75	20.74	4.61	8.76	4.15	100.00
Dhenkanal District						
Male	81.65	11.93	4.59	1.83	0.00	100.00
Female	88.89	11.11	0.00	0.00	0.00	100.00
TOTAL	83.45	11.72	3.45	1.38	0.00	100.00
Sundargarh District						
Male	88.03	11.11	0.85	0.00	0.00	100.00
Female	98.33	1.67	0.00	0.00	0.00	100.00
TOTAL	91.53	7.91	0.56	0.00	0.00	100.00
Nuapada District						
Male	88.46	9.62	0.96	0.96	0.00	100.00
Female	88.75	8.75	2.50	0.00	0.00	100.00
TOTAL	88.59	9.24	1.63	0.54	0.00	100.00
ODISHA (Four Districts)						
Male	81.09	12.53	2.96	2.73	0.68	100.00
Female	78.87	13.38	2.11	3.52	2.11	100.00
TOTAL	80.22	12.86	2.63	3.04	1.24	100.00

Source: Field Survey, 2008-09

Table 4 : Employment and Un-Employment among NREGA Female Participants

Description of the Parameters	Ganjam	Dhenkanal	Sundergarh	Nuapada	All
Employment and un-employment during Kharif (2007-08)					
a) Working days under NREGA	2.27	1.45	0.21	2.07	1.68
b) Working days under Non-NREGA	20.47	24.96	25.20	23.24	22.79
c) Self employment days	35.45	31.27	38.83	39.53	36.80
d) Un-employment days	41.81	42.31	35.77	35.17	38.73
h) Total days available for work	16078	5100	8751	11790	41719
Employment and un-employment during Rabi (2007-08)					
a) Working days under NREGA	16.13	2.75	0.28	0.49	6.85
b) Working days under Non-NREGA	24.32	18.38	25.12	27.49	24.66
c) Self employment days	30.54	32.68	39.17	39.04	34.97
d) Un-employment days	29.01	46.20	35.43	32.98	33.53
h) Total days available for work	13201	4076	6906	9496	33679
Employment and un-employment during Summer (2007-08)					
a) Working days under NREGA	8.84	3.81	3.26	5.24	6.25
b) Working days under Non-NREGA	10.21	10.26	9.58	9.52	9.91
c) Self employment days	29.40	33.84	45.05	45.48	37.14
d) Un-employment days	51.55	52.08	42.12	39.76	46.70
h) Total days available for work	11765	3070	5252	7141	27228
Employment and un-employment during 2007-08 (1+2+3)					
a) Working days under NREGA	8.61	2.47	0.99	2.34	4.59
b) Working days under Non-NREGA	18.77	19.08	21.25	21.21	19.99
c) Self employment days	32.14	32.39	40.50	40.86	36.29
d) Un-employment days	40.49	46.06	37.25	35.59	39.14
h) Total days available for work	41044	12246	20909	28427	102626

Source: Field Survey, 2008-09

Table 5 : Wage Incomes (All Seasons) of Females among NREGA Participant Households

Description of the Parameters	Ganjam	Dhenkanal	Sundergarh	Nuapada	All
Wage Income During All Seasons(2007-08)					
A) Proportion of Female NREGA Income in total NREGA Income	55.37	23.67	7.73	43.61	40.88
B) Proportion of Female Non-NREGA Income in total NREGA Income	127.28	290.13	103.79	227.65	156.63
C) Proportion of Female wage Income In total HH Wage Income	41.17	22.50	14.86	30.32	29.12
Wage Income from All Sources (2007-08) (Rs. in Lakhs)	15.94	9.93	9.69	9.91	45.48

Source: Field Survey, 2008-09

Role of PRIs in Implementing Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in Odisha :

A Study of Balliguda Block in Kandhamal District

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INTRODUCTION

Under the 73rd constitutional Amendment Act, a three-tier Panchayati Raj Institutions System has been in place in all the states. These institutions are supposed to look after 29 activities which are mostly local public goods¹. The Grama Sabha is the core decision making body in the Grama Panchayats in which all voters of the panchayat are the members. The members of Panchayati Raj Institutions are responsible for proper maintenance of village development plans and its implementation. Few central schemes and programmes are implemented by the PRI bodies with an objective of achieving better results. It is presumed that PRIs with close connection with the people at the grass root level are more accountable and administer the programme in a better way.

The importance of institutional support to a scheme of development cannot be undermined in the present context. Increasingly research has shown that weak, missing or perverse institutions are the roots of underdevelopment. Most of the studies suggest a strong and robust relationship between institutional quality and growth and development outcomes.(OECD,2003). Looking across countries, the literature argues that improvements in the quality of contracting institutions, better law enforcement, increased protection of private property rights, improvements in central government bureaucracy, improved operation of formal sector financial markets, increased levels of democracy, and higher levels of trust are all correlated with higher economic growth.(Pande and Udry,2005) The failure of many development schemes to deliver desired result maybe due to poor institutional support to channelise the service benefits. Besides, it is also necessary to identify the strengths and weakness of different institutional arrangements made for the proper implementation of the above schemes.

1. Local public goods are those items which benefits a small locality.

Sometimes it happens that the actual need of the people does not match with the plans and programmes made for their benefit which results in the failure of the programme. The present study is an attempt to understand the role of the Gram Panchayats (one tier of the three tier system) in service delivery system under MGNREGA and to find out the gaps in the institutional arrangements which might be the cause of failure. It is stated that economies at early stages of development are beset with coordination failures of various kinds, and alternative coordination mechanisms - the state, the market, the community organisations - all play different roles, sometimes conflicting and sometimes complementary, in overcoming these coordination failures, and these roles change in various stages of development in highly context-specific and path-dependent ways. (Bardhan,)

The study comprises the following broad areas :

- i. The assigned role of Panchayats in the area of service delivery of MGNREGA
- ii. Awareness of PRI functionaries about their roles.
- iii. Institutional set up available at the G. Panchayat level to handle the service delivery process
- iv. Involvement of the community in effective service delivery process
- v. Institutional gaps which create barrier for service delivery

IMPORTANCE OF THE STUDY

All most all the rural development programmes, which are planned and implemented at the village level, do not enjoy any flexibility in terms of tuning them to the specific needs of the villages, as they are governed by the Central / States guidelines, thus, leaving little scope for accommodating the choice / preferences / priority of the village people. There are various schemes and programmes of the government where the technical and financial approval is vested with block and district level authorities. Thus, in many programmes, where the village Panchayats have been given responsibility for implementation, they do not possess the powers of sanctioning. But MGNREGS is a scheme where Gram panchayats act as the principal authorities for planning and implementation of the scheme. The Panchayats at different levels (Village, Block and the District) shall coordinate with each other for the effective implementation of the Act. The present study is an attempt to evaluate to which extent the Panchayati Raj system is able to perform a significant role for the proper implementation of the MGNREGA scheme..

Research Methodology

The sample of the study consists of examining a single panchayat in Kandhamal district. Data collection will be made from panchayat functionaries and the job cardholders

on different aspects of the scheme through a structured questionnaire. After analyzing the data using simple statistical tools, the validity of the assumptions made will be examined.

Features of MGNREGS

The NREG Act, 2005 ensures the livelihood security of the households in rural areas of the country by providing at least one hundred days of guaranteed wage employment within a financial year to each eligible households whose adult members have willingness to do unskilled manual work. This Act has been implemented nationwide except the State of Jammu and Kashmir.

In exercise of the powers conferred by sub-section (1) of section 4 of the National Rural Employment Guarantee Act, 2005 the State Government framed a scheme for the purpose of providing not less than one hundred days of guaranteed wage employment in a financial year to every household in rural areas whose adult members have willingness to do unskilled manual work. All the districts in the country will be covered under the scheme within five years. The features of the scheme are:

- State Governments have to provide at least 100 days of guaranteed wage employment in every financial year to every household whose adult members have willingness to do unskilled manual work.
- The wage rate is fixed by the Central Government. The minimum wage for agricultural labourers shall be applicable for the scheme.
- An applicant who has not been provided employment within fifteen days from the date of his/her written demand for job, is entitled to get a daily unemployment allowance as specified by the State Government subject to its economic capacity, provided such rate is not less than a quarter of the wage rate for the first thirty days during the financial year and not less than a half of the wage rate for the remaining period of the financial year.
- Central Employment Guarantee Council to be constituted to discharge various functions and duties assigned to the Council. Similarly every State Government has also to constitute a State Council for this purpose.
- Panchayats at the district level have to constitute a Standing Committee of its members to supervise, monitor and oversee the implementation of the Scheme within the district.
- For every Block, State Governments have to appoint a Programme Officer for implementing the Scheme.

- Similarly Gram Panchayats would be responsible for identification of the projects as per the recommendations of the Gram Sabha and for executing and supervising such works. The Panchayats at each level will be the principal authorities for planning and implementation of the scheme
- Central Government has to establish a National Employment Guarantee Fund while State Governments have to establish State Employment Guarantee Funds for the implementation of the Scheme.
- The Scheme would be self-selecting one by the poor in the sense that those among the poor who need work at the minimum wage would report for work under the scheme.
- The Panchayats at different levels shall coordinate with each other and also with the District and the Block administration for the effective implementation of the Act.

Agencies/Institutions for MGNREGS

The key agencies involved in the implementation of the Scheme and their respective roles are as follows:

- a) Gram Sabha or Palli Sabha, as the case may be, is authorized to recommend works to be taken up under the Scheme, to monitor and supervise these works and to conduct social audit for the implementation of the Scheme. Gram Sabha will monitor all works and employment provided to households.
- b) Gram Panchayat shall be responsible for planning of works, registering households, issuing job cards, allocating works, executing fifty per cent of the works like, Panchayat works' and monitoring the implementation of the scheme at the village level G.P will monitor the registration and issue of Job Card. G.P will monitor works of other implementing Agencies and the Muster Roll maintained by them
- c) Additional staff such as "Gram Rozgar Sevak" and Technical Assistant will be deployed out of the programme cost of the scheme to assist the GP in carrying out these functions
- d) The Panchayat Samiti at the intermediate level shall be responsible for planning, monitoring and supervising at the Block level and shall have the responsibility of executing works from among the fifty percent that are not to be executed by the G.P if so directed by the State Government or the council.

Panchayat Samiti and Project Officer will monitor the registration, employment provided to each household, unemployed allowances, social audit, labour budget, timely and correct payment wages, progress and quality of works.

- Zilla Parishad and District Planning Committee will monitor all aspects of implementation.

Men Power of Baliguda Block and MGNREGA

Baliguda is one of the 12 blocks of the Kandhamal District with 14 Gram Panchayats. The primary data collected from the Block officials reflects that before the introduction of MGNREGA (2006), there were 12 employees and 4 Junior Engineers at the block level. At the Panchayat level, there were 14 Village Level Workers-cum-Executive officers one each in every panchayat. After 2006, one Gram Rozgar Sevak for each panchayat, three more Junior engineers named as Gram panchayat Technical Assistants at the block level and one Additional Programme Officer at the block have been added to oversee the additional work.

As a whole, at present each panchayat has one VLW and one Gram Rozgar Sevak to look after the panchayat development and administration. For each two panchayats one Junior Engineer is appointed who are accountable and entrusted the responsibility to implement all the development works. At the block office 13 personnel are currently working for coordinating and supervising the ongoing schemes.

Development Works of Balliguda Block

The growth of workload at the Gram Panchayat and Block level reveals that it has increased rapidly over the last 7 to 8 years. Information on these is collected from the block records. It is noticed that only two schemes i.e the Backward Regions Grant Fund (BRGF) and Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) have been under implementation from the financial year 2006-07 at the Gram Panchayat level directly. Another state scheme, Biju Kandhamal O Gajapati Yojana (BKOGY) was declared and implemented from the year 2009-10. Most of the previous schemes are already merged with the MGNREGS since 2006-07. At the block level many other development schemes are under implementation.

Table-1 gives the total expenditure in Baliguda block which includes funds flowing to the Gram Panchayats and linked to the man-power available to discharge the implementation process for the period 2004-05 to 2011-12. The last column represents the per employee expenditure for the same period. It is clear from the data that per employee expenditure has increased by three –fold over the period. In 2010-11, it reached a sum of Rs 13.59 lakhs which is more than 4 times high compared to 04-05 situation. Secondly, the wide fluctuation in the expenditure indicates irregular flow of financial resources to the block from the central and state agencies. In 2006-07, it reached to a very low level of only Rs. 29.74 lakhs.

Tab-1 : Total Public Expenditure and Men-in-Position in Balliguda Block

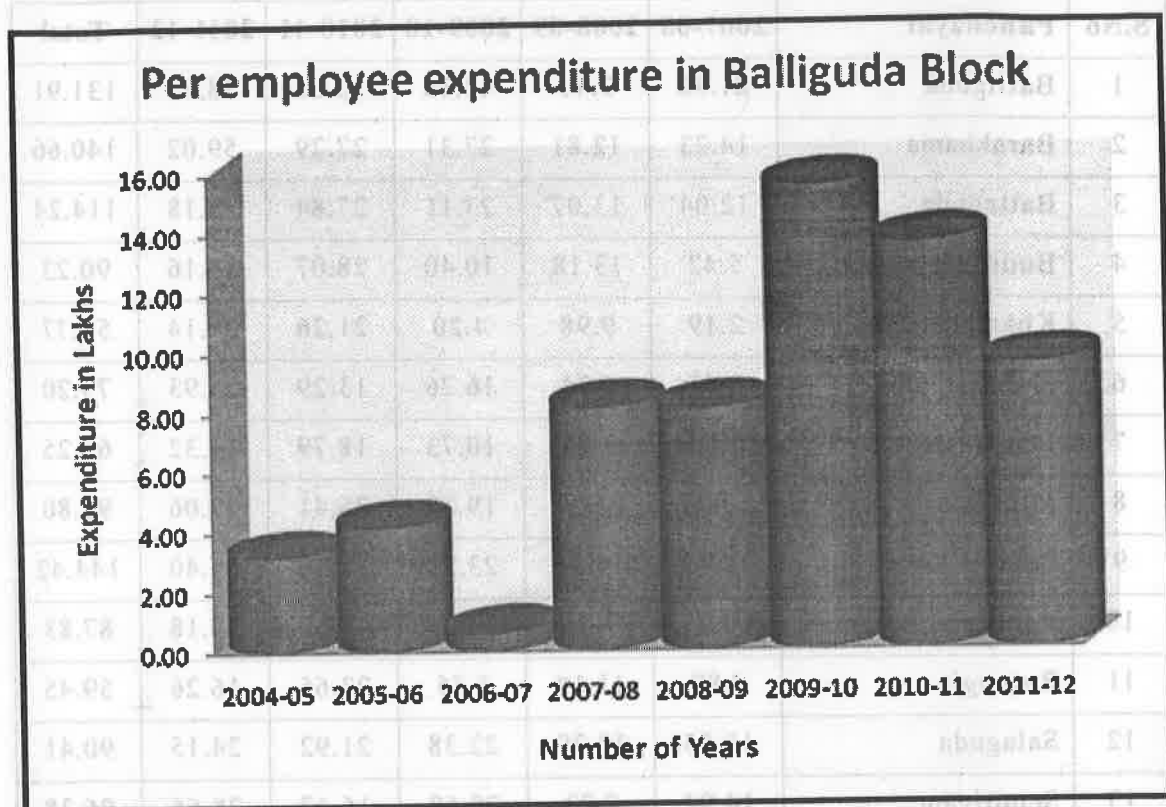
Year	Total Expenditure (in Lakh of Rs.)	Total Men-in-Position (in Numbers)	Per employee Expenditure (in Lakh of Rs.)
2004-05	95.00	30	3.17
2005-06	125.00	30	4.17
2006-07	29.74	48	0.62
2007-08	390.65	48	8.14
2008-09	389.03	48	8.10
2009-10	744.88	48	15.52
2010-11	652.20	48	13.59
2011-12	458.63	48	9.55

Source: Primary data collected from the block officials and its computer cell

In Table-1 the total expenditure column includes all expenditure made under different schemes such as Swarnajayanti Gram Swarozgar Yojana (SGSY), National Food for Work Programme (NFFWP), Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Indira Awas Yojana (IAY), CC Road, Integrated Action Plan (IAP) and SC/ST Hostel building programmes etc. From table-1 it can be analyzed that the amount of expenditure increased from Rupees 95 lakhs in 2004-05 to a highest of Rs. 744.88 lakhs in 2009-10 recording more than seven fold rise. During this period the men-in-position increased from 30 to 48 numbers which is slightly more than one-half times.

This increasing pressure of expenditure resulted in poor performance of the block in spending money in time and on necessary items.. To site specific examples it can be said that though the resource provision for the works such as electrification of Kutikia High School and Sautikia Sevashram School under Kutikia Gram panchayat; construction of anganwadi centre at Sapakamba and at Manikuti villges in Sindrigaon GP and construction of a culvert on Dalapata to Dadakangia via Balimasti in Rutungia GP have been made since 2006-07 financial year, yet it could not be completed and in some cases even not started. Rise in per-employee expenditure in Baliguda block is shown with the help of a figure below.

Figure-1



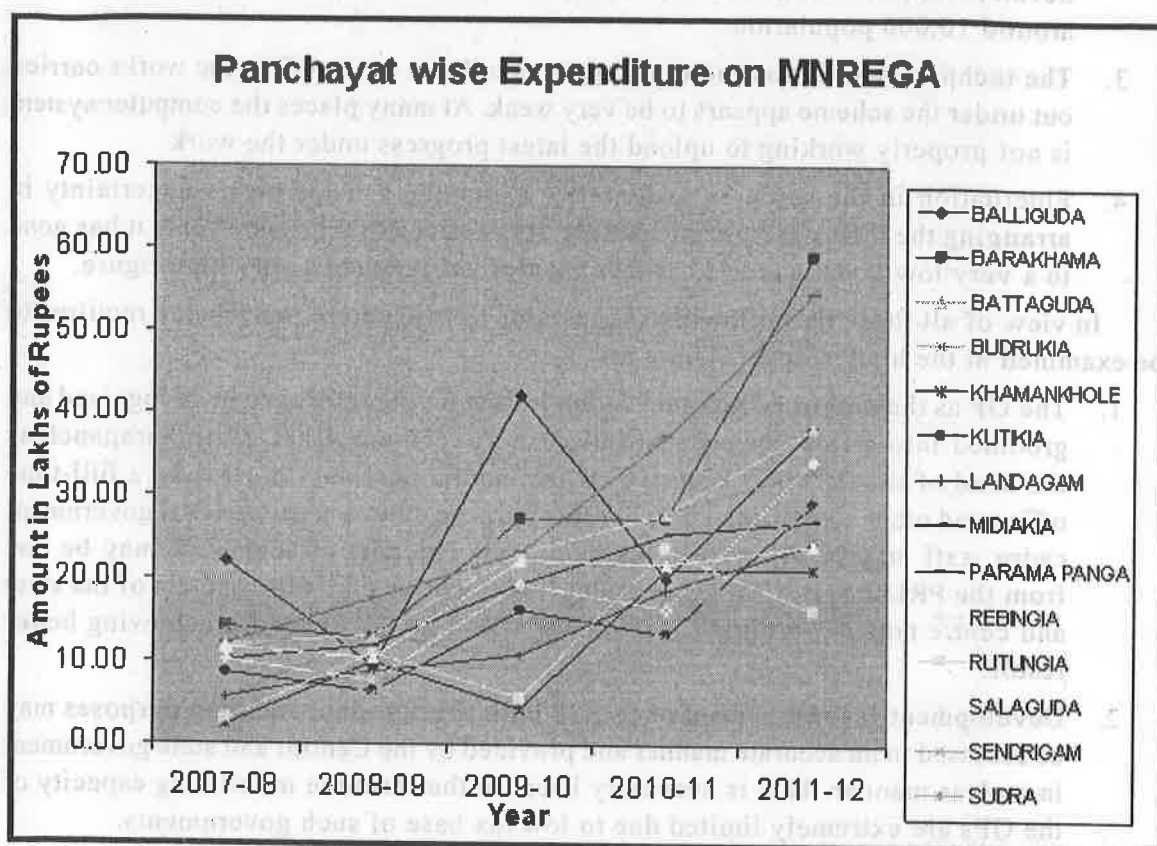
Status of MGNREGS in Gram Panchayats of Balliguda Block :

MGNREGS is implemented by the Gram Panchayats to provide 100 days of employment to all eligible job seekers of a village. The GP-wise expenditure is given in Table-2 for the period from 2007-08 to 2011-12. The table reveals that each year the amount of expenditure has been increasing whereas the number of employees to deal with that expenditure, remained constant throughout the period. There exists wide variation among the GPs with regard to amount spent under the scheme. Khamanakhole GP has spent only Rs. 58 lakh in the five years whereas Parampanga GP spent closer to three times of this amount. Fifty percent of the amount spent at GP level is being spent at the BP level which means there is no Grama Sabha to decide the projects.

Table-2 Gram Panchayat wise Expenditure under MGNREGS in Baliguda Block

S.No	Panchayat	2007-08	2008-09	2009-10	2010-11	2011-12	Total
1	Balliguda	21.96	9.41	42.16	20.06	38.32	131.91
2	Barakhama	14.23	12.81	27.31	27.29	59.02	140.66
3	Battaguda	12.04	13.07	23.11	27.84	38.18	114.24
4	Budrukia	5.42	13.18	10.40	28.07	33.16	90.23
5	Khamankhole	2.19	9.98	4.20	21.26	21.14	58.77
6	Kutikia	8.47	6.24	16.26	13.29	28.93	73.20
7	Landagam	5.59	8.82	10.73	18.79	24.32	68.25
8	Midiakia	10.07	11.93	19.33	25.41	27.06	93.80
9	Parama panga	12.11	17.46	23.25	37.20	54.40	144.42
10	Rebingia	10.07	7.74	19.33	16.50	34.18	87.83
11	Rutungia	2.89	11.10	5.55	23.65	16.26	59.45
12	Salaguda	11.66	10.29	22.38	21.92	24.15	90.41
13	Sendrigam	14.94	7.73	28.68	16.47	28.56	96.38
14	Sudra	13.51	5.88	25.94	12.52	30.86	88.71
	Total	145.16	145.65	278.63	310.27	458.54	1338.25
	Expenditure on BP Level	120.95	89.22	232.17	190.06	67.47	699.87
	Administrative Expenditure by PO	4.69	2.15	9.01	4.58	15.53	35.96
	Grand Total	270.81	237.02	519.82	504.89	541.54	2074.08

Source: website www.mgnregs.nic.in

Figure- 2

The information of the table is presented in Figure -2. The upward trend is clearly visible from the figure. For some panchayats it is very steep whereas for some others it is less steep.

Conclusion and Suggestions

The analysis relating to institutional adequacy of MGNREGS reveals the following broad conclusions ;

1. The Grama Sabha / Palli Sabha which is supposed to work as the village assembly is not working properly. The meetings are mostly shown in pen and paper. Political groupings in the villages create a difficult environment to carry out the business of these meeting smoothly. In many cases quarrels among the villagers led to disruption of the meetings and no clear decision emerges from such meetings.

2. The Gram Panchayat as the grass root unit of the governance has inadequate men-power with regard to its' workload. With one Executive Officer and a Gram Rozgar Sevak , it is difficult to monitor and supervise the works in a GP which consists of around 10,000 population.
3. The technical and infrastructural support available in the GP to the works carried out under the scheme appears to be very weak. At many places the computer system is not properly working to upload the latest progress under the work.
4. Fluctuation in the resource availability under the scheme clears uncertainty in arranging the infrastructure adequately. It is noticed that in some years it has gone to a very low level whereas in other years it has reached a very high figure.

In view of all these the following suggestions to restructure the scheme requires to be examined at the highest level. These are

1. The GP as the unit of governance at the lowest level requires to be recognised and groomed into a full-fledged institution in the coming years. With Sarapanch as the head of the GP and Executive Officer as the Secretary must have a full-time office and other supporting staff. For this purpose other a separate local government cadre staff may be allowed to be appointed. The cost of such staff may be met from the PRI budget. . All government functionaries under the control of the state and centre must co-ordinate at this level with t he GP office for achieving better result.
2. Development resources need of the GP both for non-plan and plan purposes may be assessed in an accurate manner and provided by the Central and state government in a clear manner. This is necessary because the resource mobilising capacity of the GPs are extremely limited due to low tax base of such governments.
3. Social audit/Evaluation of the scheme may be made a regular event once in every quarter (preferably first Sunday of every quarter) without spending too much money on publishing the dates and other information.

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Urbanization and Inequality in Access to Health Care in Odisha: An Evidence form District Level Household Survey

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INTRODUCTION

Urbanisation is a process whereby traditional, rural, agrarian economy has been transformed to a modern one. In the process there is a progressive concentration of population in urban unit. Urbanisation is a global phenomenon. India with its traditional agrarian economy has been urbanizing fast with more than 31 per cent of population living in cities and towns. However, the process of urbanization in Odisha is much lower than the national level. 2011 Census reports that about 370 million people are living in urban part of India and it is projected to increase to a high of 590 million by 2030. But in Odisha the situation is quite different. At present only 7 million people are residing in urban area of Odisha. Moreover, it is also observed that there is a skewed and slow pace of urbanization across the districts of Odisha. Urban clusters are mainly concentrated in coastal and northern region of Odisha (Appendix Table).

Decline in the agricultural sector coupled with poverty compelled the people to move from rural to urban area. On the one hand unemployment, underemployment and lack of job opportunities tend to push people, on the other hand better prospects with higher wages and better amenities of life particularly access to health and education, often tend to tempt people for migration from rural to urban area. Urban centers provide emergency good quality medical services to the inhabitants.

Health service is an important determinant of well being of people of an economy. Sound health of the people often predicts rapid economic development. Among the various factors that influence health, 'availability, accessibility and affordability' of health care services are important determinants for improving population health. Data shows that there exists inequalities in access to health care services among various groups of people residing in rural and urban Odisha. This paper seeks to examine the causal link that exists between socio-economic determinants and access to health care services in Odisha by addressing the following specific objectives.

- 1) To understand the inequality in access to health care among the groups of people residing in rural and urban parts of Odisha.
- 2) To examine the variation in accessibility of health care services with respect to different socio-demographic variables.
- 3) To understand the contribution of individual socio-demographic factor on the group behaviour.

The scheme of the paper is as follows. Section I highlights the universal access to health care and the concept of equity in health sector. Section II outlines inequality in access to health care services by rural and urban residents of Odisha. Section III details data procurement and the methodology employed for analysis. Section IV analyses the empirical results. Section V concludes the paper.

Section I

The National Health Policy aims at providing universal health care and access to medical services to all sections of the society. Universal Access to Health Care implies that everyone within a country can access health services on the basis of need. To achieve this, health services will have to be organized in such a way that everyone will get the same range of services as per need. Equity has long been considered an important goal in the health sector. Yet inequalities between the rural and the urban residents persist. The people of rural area tend to suffer higher rates of mortality and morbidity than do their urban counterparts. In spite their higher levels of need they often use the services less. Notwithstanding their lower levels of utilization, the rural households often spend more on health care as a share of income than the urban households. Most authors corroborate the view that these inequalities are mainly due to differences in constraints between the rural and the urban inhabitants regarding income, living condition, insurance, education etc. Quite a large number of studies have been done in this area. Alleyne et al. 2000; Braveman et al. 2001; Le Grand 1987; Whitehead 1992; Wagstaff and van Doorslaer 2000 are only a few to name. Nobel Prize winners James Tobin (1970) and Amartya Sen (2002) are very much concerned about the inequalities in health care. Health and health care are integral to people's capability to function—their ability to flourish as human beings. As Sen puts it, "Health is among the most important conditions of human life and a critically significant constituent of human capabilities which we have reason to value" (Sen 2002). There is thus an inalienable relationship between equity and universality.

Section II

The Government of India has taken a good number of steps to bring about considerable improvement in health infrastructure as well as delivery of the medical services so that accessibility of healthcare services in the country shall improve. The ultimate objective

of various programme is to achieve universal health care and to bring equity. But even after 60 years of independence the availability and accessibility of medical services in India are marked by inequities. The basic character of the present day medical service system in India are urban centered, curative service oriented and biased in favour of allopathic medicine. Under public sector, medical care services are provided to the citizens by dispensary, sub-centers at lower (village) level, PHCs and CHCs at block and tahasil level, district hospitals at district level and teaching & research based medical institutions at state level. Under the private sector, medical care services are availed at private hospitals, clinics, nursing homes, and private doctors / practitioners, mostly concentrated in urban centers. The medical services in India are pro-poor. Though universality in accessibility is the avowed objective of the public medical service in India, still there exists inequity between rural and urban households in the accessibility of the service.

Table 1 reflects the inequality in accessing health care services among the rural and urban households in Odisha. Rural households generally prefer to be treated under rural hospital / PHC / CHC, whereas the urban households availing the facility from district and state level hospitals. This is clear from the table that 44.6 per cent of urban households depend on district / state hospitals and only 16.6 rural households depend on the same, on the contrary 69.5 per cent of rural households very often approach to rural hospitals / PHC / CHC and 27.5 per cent of urban households depend on PHC / CHC. Further it is observed that urban families are seeking medical care at private hospitals / clinics or from private doctors, but in rural area households are seeking medical care at hospitals running under public sector.

Table 1: Source wise Access to health care by Rural and Urban Households in Odisha

Facilities	Rural (%)	Urban (%)
Hospital	16.6	44.6
Dispensary	0.4	1.9
UHC/UHP/UFWC	0.7	3.2
CHC/Rural Hospital/PHC	69.5	27.5
Sub center	4.2	0.4
Ayush Hospital/Clinic	0.1	0.2
Anganwadi/ICDS centers	0.3	0.0
Mobile Clinic	0.0	0.0
Other Public sector health facility	0.3	1.9
NGO or trust hospital/ Clinic	0.0	0.1

Private hospital	1.5	7.6
Private-doctor/Clinic	4.2	10.2
Private paramedic	0.1	0.0
Ayush Hospital/ Clinic	0.1	0.1
Traditional Healer	0.1	0.0
Pharmacy/ drug store	0.9	0.3
Other private sector health facility	0.1	0.4
Non-medical shop	0.3	0.2
Home treatment	0.2	0.1
Others	0.3	1.3
Total (N)	29003	4172

Source: District Level Household and Facility Survey-III Odisha Report

Table 2 portrays the source of medical facility seeking behaviour of rural and urban individuals with respect to their educational standard. One thing is very clear from the table that there is a positive association between standard of education and health seeking behaviour of the individual. From the table it can be verified that in urban area the accessibility of medical care increases with the increase of educational standard irrespective of the source of services, such as public, private or from any other. If we look to the rural sector this is true up to primary education, thereafter the trend is a reverse one. This may be due to migration of educated people from rural to urban area.

Table 2: Access to health care by Rural and Urban Individuals with Education Standard in Odisha

Sources	Rural (%)				Urban (%)			
	Illite- rate	Up to Primary	Up to High School	Above High School	Illite- rate	Up to Primary	Up to High School	Above High School
Government	14.3	36.3	31.9	17.4	5.3	17.3	29.2	48.3
Private	8.3	37.2	35.1	19.4	2.3	15.5	27.8	54.4
Home Treatment	25.8	47.0	16.7	10.6	20.0	0.0	20.0	60.0
Others	14.3	33.3	28.6	23.8	3.7	14.8	33.3	48.1

Source: District Level Household and Facility Survey-III Odisha Report

Table 3 details the source wise medical facility seeking behavior of rural & urban individuals with background characteristics. Both rural and urban individuals depend on government sector for accessing medical care facility. However, the non-poor individuals living in urban area having own land and building prefer for private sector health provider than their poor counterparts.

Table 3: Access to health care by Rural and Urban Individuals with Background Characteristics in Odisha

Sources	Poor (%)				Non-Poor (%)			
	Govt.	Private	Home Treatment	Others	Govt.	Private	Home Treatment	Others
Wealth Quintile								
Poorest	93.1	6.4	0.3	0.3	88.5	11.0	0.0	0.5
2 nd Poorest	91.7	7.8	0.1	0.4	87.4	11.7	0.2	0.7
Middle	90.9	8.8	0.2	0.2	82.6	15.8	0.2	1.4
2 nd Richest	90.4	9.2	0.1	0.3	82.2	16.3	0.1	1.4
Richest	88.5	10.7	0.2	0.6	73.6	24.7	0.1	1.5
Economic standard								
Kuchha	92.2	7.2	0.3	0.3	84.3	14.4	0.1	1.1
Semi-Pucca	92.9	6.8	0.1	0.2	83.1	15.6	0.1	1.2
Pucca	89.7	9.5	0.2	0.7	74.7	23.7	0.2	1.4
Owens house	92.1	7.4	0.2	0.3	82.5	16.3	0.0	1.1
Owens land	92.4	7.1	0.2	0.3	78.8	19.0	0.2	2.0
Having BPL card	92.9	6.7	0.2	0.2	85.4	13.0	0.2	1.4
Religion								
Hindu	92.1	7.4	0.2	0.3	80.5	32.6	0.0	0.4
Others	90.4	9.0	0.4	0.2	67.1	18.9	0.1	1.3
Caste								
SC	91.8	7.7	0.2	0.3	78.4	19.6	0.1	1.9
ST	93.9	5.5	0.4	0.2	80.7	18.0	0.0	1.3
OBC	91.1	8.4	0.1	0.4	85.1	14.2	0.2	0.6
Others	90.5	9.1	0.2	0.2	76.6	21.7	0.1	1.6

Source: District Level Household and Facility Survey-III Odisha Report

Section III

In this section we shall explain about data procurement and the methodology employed for analysis.

Data

The District Level Household and Facility Survey (DLHS) is designed to collect data at district level on various aspects of health care utilization for Reproductive and Child Health (RCH). In order to promote RCH care, to assess health facility capacity and preparedness in terms of infrastructure DLHS has been initiated in the year 1998. The District Level Household and Facility Survey, 2007-08 (DLHS-3) is the third in the series of district level household surveys, the first one was conducted in 1998-99 followed by the second in 2002-04. For all the three DLHS, the Ministry of Health & Family Welfare (MoHFW), Government of India (GoI) designated the International Institute for Population Sciences (IIPS) as the Nodal Agency responsible for development of survey design, instruments, data entry & tabulation, software, training, supervision of field work and preparation of the reports. It covers all the districts of India. In DLHS-3 a multi-stage stratified systematic sampling design is adopted. The Census of India, 2001 is the sampling frame for DLHS-3. The details of the sampling procedure, sample size and the findings are available in state report. DLHS-3 canvassed a set of structured questionnaires, namely, household, ever married woman, unmarried woman and village questionnaires. In this paper we have utilised the data of DLHS-3, which covered a sample of 720320 households of various districts across India. Data for our analysis is procured from the household file of Odisha. Software packages like SPSS 16 and STATA 10 are used towards this end.

Methodology

Once the inequity in access to health sector is recognised the next step is to explain them. One should employ suitable method for decomposing inequity that exists in access to health care service into its contributing factors. An often used method to study such problem is famous in the literature as the Oaxaca-Blinder decomposition technique (Blinder, 1973; Oaxaca, 1973). This technique is especially useful for identifying and quantifying the separate contributions of group differences in measurable characteristics to categorical differences in outcomes. The decomposition "explains the gap in the means of an outcome variable between two groups. The gap is decomposed into that part that is due to group differences in the magnitudes of the determinants of the outcome in question, on the one hand, and group differences in the effects of these determinants, on the other". The detailed methodology of the technique is given below.

Let there are two groups Urban and Rural, an outcome variable y and a set of predictors (determinants) represented by x , now the regression model is

$$Y^u = \beta^u x_i + \varepsilon_i \text{ if Urban Area is considered}$$

$$Y^r = \beta^r x_i + \varepsilon_i \text{ if Rural Area is considered}$$

Where, the vector of β parameters includes intercept.

The gap between the mean outcomes, y^u and y^r is equal to

$$y^u - y^r = \beta^u x^u - \beta^r x^r$$

To identify the contribution of group differences in predictors to the overall outcome difference, the above equation can be arranged as

$$y^u - y^r = \Delta x \beta^r + \Delta \beta x^r + \Delta x \Delta \beta = E + C + I$$

$$\text{Where, } \Delta x = x^u - x^r \text{ and } \Delta \beta = \beta^u - \beta^r$$

So that the gap in the mean outcomes can be divided into a gap in endowment (E), a gap in coefficient (C), and a gap arising from the interaction of endowments and coefficients (I).

The Equation can also be arranged as

$$y^u - y^r = \Delta x \beta^r + \Delta \beta x^u$$

This decomposition is formulated from the viewpoint of Rural Area. that is, the group differences in the predictors are weighted by the coefficients of rural area to determine the endowment effect (E). The E component measures the expected change in rural area's mean outcome, if rural area had urban area's predictors level. Similarly, for the second component (C), the differences in coefficients are weighted by rural area's predictor level. That is the second component measures the expected change in rural area's mean outcome, if rural area had urban area's coefficient.

Likewise, the differential can analogously be expressed from the view point of Urban Area, leading to reverse three-fold decomposition.

$$y^u - y^r = \Delta x \beta^u + \Delta \beta x^u - \Delta x \Delta \beta = E + C - I$$

$$\text{or as } y^u - y^r = \Delta x \beta^u + \Delta \beta x^r$$

Differences in x 's (predictor values) is called an explained component and differences in β 's (coefficient values) is called unexplained component.

In the first decomposition (from the view point of rural area) the interaction component is placed in the unexplained part, whereas in the second decomposition (from the view point of urban area) the same is placed in the explained part (Jann, 2008).

Specification of the Variables

In this paper we have employed Oaxaca-Blinder decomposition technique for identifying and quantifying the separate contribution of predictor variables for group

(categorical) differences in outcome variable. Here the outcome variable is 'Access to medical / health care', group are 'Rural & Urban' and the predictor variables are various socio-economic characteristics of the sample. We have specified following eight predictor variables in our model.

1. Education: dummy variable for educational standard up to primary, up to high school, high school and above with illiterate as the reference group.
2. Awareness: dummy variable = 1 if the individual reports about the awareness of health programme, and '0' otherwise.
3. Religion: dummy variable = 1 if the individual is a hindu, and '0' otherwise.
4. Caste: dummy variable = 1 if the individual belongs to vulnerable section of the society, viz., SC / ST/ OBC, and '0' otherwise.
5. Dwelling: dummy variable = 1 if the individual owns a house, and '0' otherwise.
6. Health Insurance: dummy variable = 1 if the individual is a policy holder of any health insurance scheme, and '0' otherwise.
7. Standard of Living: dummy variable = 1 if the individual is poor, and '0' otherwise.
8. Beneficiary of Government Programme: dummy variable = 1 if the individual is getting benefit from government under any subsidized schemes like PDS and '0' otherwise.

Section IV

In fact it is a challenging task to develop an equitable healthcare system. Here the question arises, 'why do inequalities in health exist between the inhabitants of rural and urban area in our state (Odisha) despite health systems explicitly aim at eliminating inequalities in access to health care?' To answer the above question and to address the objectives mentioned in earlier paragraph, we have attempted here the Oaxaca-Blinder technique.

The estimates of the access to health care equation in urban area are presented in Table-4. Empirical evidence shows that the awareness of the people about health programme, religion, social caste, type of dwelling and health insurance are statistically significant with the expected sign. Likewise the estimates of the access to health care equation in rural area are also presented in Table 4. The result shows that the level of education both up to primary and up to high school, awareness, religion, social caste and the beneficiaries of government programme are statistically significant at rural area.

Table 4: The estimates of the access to health care equation

Variable	Urban Area					Rural Area				
	Coef.	t	p	Mean	Pred	Coef.	t	p	Mean	Pred
Up to Primary	1.200	1.20	0.23	0.169	0.203	0.433	3.53	0.00	0.365	0.158
Up to High School	1.369	1.38	0.17	0.293	0.401	0.263	2.25	0.03	0.321	0.084
High School & Above	0.832	0.80	0.42	0.491	0.409	0.109	1.05	0.29	0.175	0.019
Awareness	0.925	2.07	0.04	0.639	0.591	0.302	3.54	0.00	0.326	0.098
Religion	-1.324	-1.68	0.09	0.938	-1.242	-0.491	-2.23	0.03	0.961	-0.472
Caste	-2.005	-4.14	0.00	0.694	-0.576	0.599	2.82	0.01	0.468	0.144
Dwelling	-1.730	-4.12	0.00	0.681	-1.178	0.184	0.75	0.46	0.971	0.179
Health Insurance	3.058	3.42	0.00	0.049	0.150	0.248	0.44	0.66	0.004	0.001
Standard of Living	-0.523	-1.12	0.26	0.860	-0.112	-0.064	-0.22	0.82	0.376	-0.006
Beneficiary of Government Programme	-0.657	-1.37	0.17	0.246	-0.162	-0.312	-3.91	0.00	0.562	-0.175
Constant	18.712	15.35	0.00	1	18.712	15.206	46.47	0.00	1	15.206
Total					17.195					15.236
R ²	0.18					0.21				
Adj R ²	0.16					0.18				

Source: Computed

Table 5 depicts the result of the decomposition analysis. This table reports the mean value of the outcome variable for two groups, and the differences between them. It also shows the contribution attributable to the gaps in the endowment, the coefficients and the interaction. Empirical evidence shows that the mean value of access to healthcare is 17.194 for urban area and 15.236 for rural area, yielding a gap of 1.958. Out of the total gap interaction effect is the dominant one, i.e., 0.914, followed by coefficient and endowment effect.

Table 5 : Result of Decomposition Analysis

Mean predication in Urban Area	17.194
Mean Prediction in Rural Area	15.236
Crude Gap	1.958
Gap due to endowments (E)	0.156
Gap due to Coefficients (C)	0.888
Gap due to Interaction (I)	0.914

Source: Computed

Table 6 shows the explained and unexplained portions of the outcome gap under two different methods of decomposition analysis. The first column represents the decomposition in which the unexplained differential is weighted by the characteristics of urban area, whereas the second column represent the the decomposition in which the unexplained differential is weighted by the characteristics of rural area. As the interaction effect is the dominant one, so, if it is clubbed with unexplained part differences in the effects of the determinants play a major role (as shown in column 1). However, if the interaction part is included in explained part, the differences in the mean values of the predictor variable accounts for the wide variation in outcome variable (as shown in column 2).

Table 6 : Explained and Unexplained part of the Decomposition

Gap	1 st	2 nd
Explained	0.156	1.07
Unexplained	1.802	0.888
% explained	8	54.7
% unexplained	92	45.3

Table 7 allows us to examine how far gaps in individual predictor variable contribute to the overall explained gap. Variables having value with positive sign favours the rural category and with negative sign favours the urban category. It is clear from the table that education, particularly higher education, awareness, and the persons those who owns the house and are the beneficiaries of government schemes are very prominent factors responsible for the variation of outcome variable.

Table 7 : Contribution of Individual Predictor Variable for the Gap

Variables	E	C	I
Up to primary	-0.085	0.280	-0.150
Up to High school	-0.007	0.355	-0.031
High school and above	0.034	0.127	0.228
Awareness	0.095	0.203	0.195
Religion	0.011	-0.801	0.019
Social Caste	0.059	-0.698	-0.081
Dwelling	-0.053	-1.858	0.555
Health insurance	0.011	0.011	0.126
Standard of Living	-0.008	-0.043	-0.056
Beneficiary of Government Programme	0.099	-0.194	0.109
Constant	0	3.506	0
Total	0.156	0.888	0.915

Source: Computed

Section V

This research write-up adopted the Oaxaca-Blinder decomposition technique to identify and quantify the contribution of individual predictor variable for the group differences in access to health care services by the rural and urban residents of Odisha. Empirical evidence shows that there exists disparity in access to health care by rural and urban area. Among the predictors education, particularly higher education, awareness of various Government health programme, house ownership and possession of BPL card are major attributing factors for the variation of outcome variable. The study concludes that inequality in access to health care is basically due to place of residence, level of education and awareness of the people about health programme that are pursued by the government from time to time. The urban based, highly educated, people with better-off economic position are more aware about government health programme. Therefore, they are in a better position to reap the benefit. People under non-poor category in urban area are generally having these socio-demographic characteristics. Hence, they are in an advantageous position to access the health care service against their rural counterparts.

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Appendix Table : Urban Population in India & Odisha (in Millions)

Census Year	India	Odisha
1901	25.85	0.30
1911	25.94	0.30
1921	28.08	0.30
1931	33.45	0.30
1941	44.15	0.40
1951	62.44	0.60
1961	78.93	1.10
1971	109.11	1.80
1981	159.46	3.10
1991	217.17	4.20
2001	285.35	5.50
2011	377.10	6.90

Source: Various Census Reports



Urbanization in India: Trends and challenges

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1. INTRODUCTION

For the first time in history, the world is now more urban than rural (UN – DESA, 2008). As per UN estimate, nearly 50 million people are added to the world's urban population and about 35 million to the rural population each year. The share of world's population living in urban centers has increased from 39% in 1980, to 46% in 2000 and 50.4% in 2010 (Table 1). The developed countries have higher urbanization levels (75.2% in 2010) than the developing countries (45.08% in 2010). The urbanization levels have more or less stabilized in the developed world while the less developed world is still going through the process.

Table 1 : Percentage of World Population residing in urban areas by region

	Major area/ Region	1980	1990	2000	2010	2020
1.	World	38.92	42.62	46.4	50.46	54.41
2.	More developed region	68.32	76.75	72.74	75.16	77.91
3.	Less developed region	29.44	34.83	40	45.08	49.76
4.	Asia	26.26	31.54	36.80	42.17	47.19
5.	India	23.10	25.55	27.67	30.01	33.89

Source : *World Urbanization prospects – The 2009 Revision, United Nations, New York.*

It is projected that almost all of the urban population increase (93%) will be absorbed in less developed regions : in Africa, Asia and mainly in two Asian countries, India and China. By 2050 over 6 billion people i.e. 2/3rd of humanity will be living in towns and cities (UN- HABITAT, 2006)

Urbanization, which is defined as progressive concentration of population in urban units (Davis, 1965) is an index of transformation of the traditional rural economy into a modern industrial one. It is a finite process, a cycle through which nations pass as they evolve from primarily agrarian to predominantly industrial societies. (Davis and Golden, 1954). Three stages in the process of urbanization have been mentioned. Stage one is characterized by rural traditional society, centered around agriculture with a dispersed pattern of settlements. Stage two is the acceleration stage in which the proportion

of urban population gradually and continuously increases from 25% to 40%, 50% 60% and so on. In this stage the economy experiences a structural change and investments in social overhead capitals including transportation and communication take place. The third and final stage, referred to as the terminal stage is one where the proportion of urban population exceeds 70% of the total population. In this stage the level of urbanization more or less stabilizes and rate of growth of urban population and total population almost coincide.

India needless to say is in the second stage of the process with its percentage of urban population to total population continuously increasing from 11% in 1901 to 31.16% in 2011. It has started experiencing urbanization only since the middle of 20th century.

2. Objectives of the Study

This paper will try to delve into the emerging trends and patterns of urbanization in India using the Indian Census data from 1901 to 2011. Besides it will attempt at looking at the changing components of urbanization, urban problems and related policy issues.

3. Definition of Urban Area

Demographically the level of urbanization is measured by the percentage of population living in urban areas. So it is imperative to define an urban area. There is no standard definition of urbanisation: it varies from country to country (UN, 2009). Indian Census defines urban area on the basis of two criteria (Registrar General, 2011).

Census 2011 used the same definition as Census 2001 and as per it an urban area consists of :

- 1) All statutory towns : All places with a municipality, Corporation, Cantonment Board or notified town area committee etc. so declared by state law, and
- 2) Census towns : Places which satisfy the following criteria :
 - a) A minimum population of 5000
 - b) At least 75% of male working population engaged in non-agricultural pursuits and
 - c) A density of population of at least 400 persons per Sq.km.

In addition, some areas falling in the vicinity of city or town are also considered as urban areas if they are treated as the out grow (OGs) of the main urban unit. Such OGs are shown as urban agglomerations. As per the census definition, Urban Agglomeration is a continuous urban spread constituting a town and its adjoining OGs or two or more physically contiguous towns and its adjoining urban out growth of such towns. For example railway colonies, University campus, port area etc. that may come up near a statutory town or city are UAs. For the census it was decided that the core town or at least one of the constituent towns of an UA should be a statutory town.

4. Trend of urbanization in India

India demonstrates most characteristic features of urbanization in the developing countries and shows a gradually increasing trend of urbanization. The office of the Registrar General and Census Commissioner of India had projected the urban population for the year 2011 as 358 million and estimated that urban population growth rates would decline from 2.75% per annum observed during 1991 – 2001 to 2.23% during 2001-2011 (RG and Census Commissioner, 2006). Urban experts also forecasted a similar trend that India's urbanization would slow down because of its exclusionary nature and its inability to spur rural to urban migration (Kundu 2007, 2011) But the 2011 Census revealed some unexpected facts.

As per the Census 2011 provisional tables released, the urban population has grown to 377 million, a growth rate of 2.76% per annum during 2001 – 2011. What is more significant is that urban India added more people (91 million) than rural India (90.6 million) in the last 10 years and this has happened for the first time in 90 years. The last time in recorded history it had happened was in 1921 and that was because of the aftermath of war and major epidemics that affected the population. This is being termed as a turn around in India's urbanization process.

Table 2 : Population of India by Residence (in Million)

Census Years	Number of UAE/Towns	Total Population	Rural Population	Rural Increase Over Previous Census	Urban Population	Urban Increase Over Previous Census
1901	1827	238.4	212.5	—	25.9	
1911	1825	252.1	226.2	13.7	25.9	0:0
1921	1949	251.3	223.2	-3.0	28.1	2.2
1931	2072	279.0	245.5	22.3	33.5	5.4
1944	2250	318.7	274.5	29.0	44.2	10.7
1951	2843	361.1	298.6	24.1	62.4	18.3
1961	2363	439.2	360.3	61.7	78.9	16.5
1971	2590	548.2	439.0	78.7	109.1	30.2
1981	3387	683.3	523.9	84.8	159.5	50.3
1991	3768	846.3	628.7	104.8	217.6	58.1
2001	5161	1028.7	742.5	113.8	286.1	68.5
2011	7935	1210.2	833.1	90.6	377.1	91.0

Source: Census Reports, 2001 and 2011.

5. Level of Urbanization :

The level or degree of urbanization is defined as relative number of people who live in urban areas. Percentage of urban population ($U/P \times 100$), percentage of rural population ($R/P \times 100$) and urban- rural ratio ($U / R \times 100$) are used to measure the level of urbanization. The level of urbanization is an index of transformation of an economy from a traditional to a modern one. Higher level of urbanization boosts the secondary sector and reduces the dependence on primary sector. Thus it is considered a symbol of economic growth and development. Economic growth and urbanization are complementary- growth boosts urbanization while urbanization accelerates the pace of economic growth.

The level of urbanization for the country as a whole has increased from 11% (in 1901) to 31.1% (in 2011) an increase by 21 percentage points in 110 years (Table 9). If we look at the change during the decade 2001-2011, it has gone up by 3.3 percentage points from 27.7% (in 2001) to 31.1% (in 2011). This may be compared to the increase in the previous decade (i.e. between 1991 -2001) by 2.1% points. Urban- rural ratio which is a simple index measuring the number of urbanities for each 100 rural persons has shown a steady increase since 1901 to 2011. At present there are 45 urbanities for every 100 rural people in India. Relating it to economic growth,

Table - 3 : Level of urbanization

Census Year	Percent Urban	Increase Over the Previous Census	Urban –Rural Ratio (Percentage)
1901	10.84	-	12.16
1911	10.29	-0.55	11.47
1921	11.18	0.89	12.58
1931	11.99	0.81	13.63
1941	13.86	1.88	16.08
1951	17.29	3.43	20.91
1961	17.97	0.68	21.91
1971	19.91	1.94	22.31
1981	23.34	3.43	30.44
1991	25.72	2.38	34.63
2001	27.86	2.14	38.47
2011	31.16	3.3	45.26

Source: Same as Table 2.

the Indian economy has grown at about 6% per annum during the 1990s and at about 8% during the first decade of 2000s (Ahluwalia, 2011). This is indicative of the power of economic growth in spurring faster urbanization during 2001-2011.

The State level patterns of levels of urbanization show a wide diversity. But in general economically advanced and better performing states more or less present higher levels of urbanization. The National Capital territory of Delhi and Union territory of Chandigarh show the highest levels of urbanization with 97.5% and 97.25% respectively. Among the states, Goa tops the list (62% urban) followed by Mizoram (51.5% urban). States with levels of urbanization higher than the national average are Tamilnadu (48.4%), Punjab (34.79%), Haryana (34.79%), Gujarat (42.58%), Maharashtra (45.23%) and West Bengal (31.89). Major states which lag behind with less than national average levels of urbanization are Uttar Pradesh (22.28%), Rajasthan (24.89%), MP (27.63%), Chhatisgarh (23.24%) and Jharkhand (24.05%). Himachal Pradesh (10%) is at the bottom of the list followed by Bihar (11.3%), Assam (14%) and Odisha (16.6%).

6. Pace of Urbanization :

Pace of urbanization can be measured by the percentage of annual exponential growth rate of urban population (Table 4):

Table – 4 : Annual Growth rate of population by residence

Year	Annual Growth Rate of Urban Population	Annual Growth Rate of Rural Population	Urban Rural Growth Differential
1901-11	0.03	0.62	-0.59
1911-21	0.79	-0.13	0.92
1921-31	1.75	0.95	0.8
1931-41	2.77	1.12	1.65
1941-51	3.47	0.84	2.63
1951-61	2.34	1.88	0.46
1961-71	3.24	3.05	0.19
1971-81	3.79	0.69	2.03
1981-91	3.09	1.8	1.29
1991-2001	2.75	1.68	1.06
2001-2011	2.76	1.15	1.61

Source: Same as table-2

The annual average growth rate of urban population showed an increasing trend from 1901 till 1951. It reached the level of 3.47% during 1941 – 51 and thereafter it registered a drop during 1951 – 61 to 2.34%— this was mainly due to declassification of a very large number of town during this period. The decades 1961 – 71 and 1971 – 81 showed an acceleration in the pace of urbanization. The decade 1971 – 81 recorded the highest urban growth rate of 3.79% per annum since independence. After 1981 urban growth rate decelerated to 3.09% during 1981-91 and further declined to 2.75% during 1991-2000. This downward trend has been slightly reversed in 2001-2011.

One has to keep in perspective the fact that urban population growth alone can not spur urbanization. In order that urbanization occurs, the urban population growth rate needs to be higher than the rural population growth rate. Hence it is the urban – rural population growth differential (URGD) that is critical to the process of urbanization. Table 4 shows the URGD was negative only at the beginning of 20th century which implies that in that decade rural growth rate of population was more than the urban growth rate. But since 1911 URGD has constantly been positive. It reached a peak in the decade 1941 – 51 after which it declined. The URGD increased from 1.06% per annum during 1991 – 2001 to 1.61% per annum during 2001-2011. Another point to be noted is that the growth of population in rural areas has declined much faster during 2001-2011 as compared to the preceding decades.

This urban rural growth differential can be observed on a decadal basis (Table – 5) The URGD has touched 19.8%, the highest in past 30 years.

Table - 5 : Decadal rate of growth of Population by residence

Year	Urban Growth rate of Population	Rural Growth Rate of Population	Urban - Rural Growth Differential
1941-51	41.4	8.8	32.6
1951-61	26.4	20.6	5.8
1961-71	38.2	21.9	16.4
1971-81	46.1	19.3	26.8
1981-91	36.5	20.0	16.5
1991-2001	31.1	18.0	13.2
2001-11	32.2	12.3	19.8

Source: Same as Table 2.

The urban – rural population growth differential is attributable to three factors : differential is the natural increase between rural and urban areas (i.e. births – deaths), net rural – urban classification and net rural to urban migration. Out of these the natural increase growth differentials between urban and rural areas has remained almost constant (4 per 1000 population) during 1991-2000 to 2001-2010. Hence the higher urban-rural growth differential is because of the net rural urban classification and net rural to urban migration which has accelerated the pace of urbanization.

7. Components of Urban growth

Urban growth can be attributed to three factors (Bhagat, 1992). 1. Natural increase, 2) net migration and 3) Rural-Urban reclassification. The relative share of these three components and changes there in are important to analyze the true nature of urbanization. The contribution of natural increase in urban population growth has declined from a peak of 62% during 1981-91 to 44% during 2001-2011. But natural increase added a huge 40 million to urban population during the first decade of this century all the same. In the words of Registrar General and Census Commissioner of India Dr. C. Chandramouli “Fertility has declined across the country. There has been a fall in number even in the 0 – 6 age group as a proportion of total population. In fact, in absolute numbers too this group (now 158.8 million) has declined by five million compared to the previous census. This would suggest migration as a significant factor in urban growth”.

Contribution of net rural- urban classification and rural to urban migration has increased from 42% in 1991-2001 to 56% in 2001-11. At present the available census data does not allow segregation of these two components though. The census report also mentions “Inclusion of new areas under Urban” as a contributing factor. The number of statutory towns has gone up by a mere 241 since 2001 (compared to an increase by 831 in the preceding decade). But the number of Census towns has gone up by 2532 (compared to a decline by 341 in the decade before). Hence rural – urban classification has contributed significantly to faster urbanization in spite of several metropolitan cities showing a huge decline in their population growth rates (Kundu, 2011). For example during 2001-11 the population in two of the predominantly urban regions, the NCT of Delhi and the Union territory of Chandigarh have grown at rates less than half of that in the preceding decade. These two regions with levels of urbanization 97.5% and

97.25% respectively have reported the lowest growth rates of population in history. The same story is repeated in other million plus cities of the country. Mumbai district has shown a decline in population. Chennai, Hyderabad, Ahmedabad and Kolkata too have recorded the lowest growth in population since independence. Lucknow and Kanpur also report a decline in their growth rates of population compared to the decade before with the notable exception of Bangalore which has shown a high demographic growth. This

can be attributed to geographical expansion of the city along with the expansion of the high-tech industry in the city.

According to P. Sainath, the turn around shown by Census 2011 with urban India adding more people than rural India for the first time in 90 years is due to “farming collapse” which results in “huge uncharted migration of people” from the countryside in search of livelihood. The massive migrations have gone hand in hand with a deepening of agrarian crisis. There is a very fast growing human movement referred to as footloose migration or short term migration (which is a desperate search for work that drives poorer people in multiple direction with no clear final destination). Neither the Census nor the National Sample Survey is structured to capture this. But it is generally accepted that rural to urban migration in India is mostly due to rural push rather than due to urban pull. It is the rural distress that causes the distressed people, mainly unskilled or at the most semi-skilled to move to urban areas in search of livelihood.

8. Problems of Urbanization in India

The pattern of urbanization in India is characterized by continuous concentration of population and activities in large cities referred to often as over urbanization (Kingsley Davis and Golden 1954), “where in urban misery and rural poverty exist side by side with the result that the city can hardly be called dynamic”. It is a state where inefficient unproductive informal sector becomes increasingly apparent (Kundu and Basu 1998).

Urbanization when proceeds at a pace which is not commensurate with adequate growth in the secondary and tertiary sector and consequent rise in overall level of economic activity creates some obvious problems in the urban areas itself, such as :

- 1. Shortage of houses :** The first and foremost concern of a person moving to a town/ city is to find a decent and affordable place to stay. A technical group constituted by the Ministry of Urban Development in 2006 to assess the urban housing shortage had estimated that at the end of the 10th five Year Plan (2007-08), the total housing shortage in the country was 24.71 million. Further an additional requirement of 1.82 million dwelling units has been projected for the 11th plan bringing the total requirement to 26.53 million extra dwelling units. The 11th plan document while examining the issue of magnitude of urban housing noted that the requirement of urban housing is linked to emerging pattern of growth of cities /towns. Cities and towns which are growing at a faster rate need to develop and deliver a faster and greater supply of houses. The need for additional housing for poorer sections does not get translated in an economic demand due to non-affordability by the economically weaker sections and low income groups, thus leading to a sizeable number of urban population resorting to squatting on government / municipal lands leading to creation of slums.

2. **Critical inadequacy of public utilities :** Rapid growth of urban population beyond the carrying capacity of cities has resulted in a situation where minimum basic facilities are also not available in many cities. Poor urban infrastructure, poor public transport, lack of access to safe drinking water, preventive health care, adequate power supply, improved sanitation facilities, improper treatment of sewerage uncollected solid wastes etc are the general features of many urban settlements. UNICEF estimated that as many as 63.8 crore people (i.e 54 per cent of total population) practice open defecation in India due to inadequate sanitation and India accounts for 58 per cent of those who do so across the globe. The UN Millennium development goals clearly underlined the importance of water and sanitation, but these two still remain the most neglected areas in many developing countries including India. There is a high cost too of not investing in water and sanitation in terms of infant deaths, lost work days, missed school etc.
3. **Deteriorating urban environment :** The environmental problems are more severe in urban India than in the rural areas. This is due to pressure on public facilities like transport, drainage, sewage, water supply, power generation etc. Many towns either do not have or have inadequate sewage system causing them to drown in filth. Inadequate and clean water supply in towns are forcing people to turn more and more to the use of ground water resulting in declining groundwater tables and even worse, the domestic and industrial wastes are increasingly polluting the ground water aquifers that lie beneath these towns. Dumping of wastes into the rivers passing by affect the towns downstream besides polluting the rivers. Air and sound pollution are other growing menaces spreading rapidly across the urban settlements of the country.
4. **Poverty :** The type of economic activity in urban areas cannot absorb the poor, illiterate and mostly unskilled/semiskilled labour which migrates from rural areas. Hence the poverty induced migration of rural poor is forced to find a foothold in the urban informal sectors(Kundu, Lalitha and Arora, 2001). Hence this only transfers poverty from rural to urban areas. Urban poverty is characterized by weak labour market positions(Grant, 2008), health vulnerabilities(Begum and Sen, 2005) and physical insecurity(Henry - Lee, 2005) and can be linked to how well the urban population adapt to change or cope with transition (Mitlin, 2005). With urbanization and resulting change in the structure of the economy those who cannot adapt will not benefit. Where urban areas have expanded rapidly based on expectation of economic growth that do not match reality, stagnation can extend pockets of urban poverty into a more general urban malaise. The issue of urban poverty in India can be best expressed with the term "pseudo -urbanization" which refers to a state when a city/town is unable to contain its populace in terms of providing livelihood, housing , infrastructure etc.

As per the latest poverty estimates for the country by the Planning Commission poverty in India has declined by 7.3 percentage points to 29.8 per cent of the population over five years from 2004-2005 to 2009-2010. During this period the head count ratio of poverty has fallen from 41.8 per cent to 33.8 per cent in rural areas and in urban areas it has declined from 25.7 per cent to 20.9 per cent. These estimates are based on the 66th round of the National Sample Survey (2009-2010) data on household consumer expenditure which has come under heavy criticism for the way it defines a poverty line and the poor. But it highlights one important fact that poverty in rural areas has declined at a faster pace than in urban areas.

There is another category of people whose numbers though swelling in urban areas, belong to mostly unrecorded poverty not captured in any formal city data. These are the homeless people; often society's most deprived and destitute. They include doorway population, children living alone along railway line, people living in transport stations like railway stations bus stands etc. They experience socio-economic and political exclusion of the most vicious form.

5. Proliferation of Slums : Uncontrolled and unplanned urbanization beyond the carrying capacity of cities has created the most brutal and inhuman living condition for the people with vast sections of urban population living in squatter settlements. In their report, the expert committee on slum statistics (appointed by the Govt. of India and headed by Pranob Sen, Principal adviser to the Planning Commission and former Chief Statistician, in 2010) projected that India's slum population in 2011 would be 93.06 million, an increase of around 23% since 2001. The committee also suggested a uniform definition of slum to be adopted by the government for its Rajiv Awas Yojana that seeks removal of slums. The number of people living in slums in India has more than doubled in two decades and now exceeds the entire population of Britain (according to Govt. sources). Slums suffer from problems that are beyond economic ones. To name a few housing, health and hygiene, sanitation, education, moral apathy etc are major concerns. Very often slums are the breeding grounds of social unrest and crime in cities/towns.

9. Change in Policy Perspective

Recent times are evidencing a change in the thinking of policy makers about urbanization. The Tenth Plan had noted that the moderate pace of urbanization in the country has been a cause of disappointment. The Eleventh plan argued that urbanization should be seen as a positive factor in overall development as the urban sector contributes about 62% of the GDP. There is also a growing realization that an ambitious goal of 9-10% growth in GDP fundamentally depends upon a vibrant urban sector (Planning Commission, 2008). The Eleventh Plan also admitted that the degree of urbanization in India is one of the lowest in the world and stipulated that the pace is now set to accelerate

as the country sets to a more rapid growth. The plan also highlighted the deteriorating infrastructural situation in large cities that “provide large economies of agglomeration”. It pleaded for “dismantling public sector monopoly over urban infrastructure and creating conducive atmosphere for the private sector to invest”. The Jawaharlal Nehru National Urban Renewal Mission (JNNURM), initiated in the Eleventh Plan focusing on 65 large and special category cities is a step in this direction where in the “Central government would play a catalytic role”

The High powered Expert Committee (HPEC 2011) on urban infrastructure and services laments that “the small and medium towns have languished for want of an economic base”. For the large metropolises it takes note of “their infrastructure deficits and the state of service delivery”. But the thrust of infrastructural development strategy is on generation of larger tax and non- tax revenue through internal sources, external borrowing, private –public partnership, mobilizing funds through bonds and other innovative financial instruments - a scheme of things in which the small and medium towns have a structural handicap. The report has some proposals to benefit these towns too so far as their infrastructural development is concerned.

The approach paper to Twelfth plan while acknowledging that the infrastructure of India's present towns is very poor accepts that expansion of urban India is the platform for industrial and modern service sector growth and for the creation of greatly improved income opportunities for the youth of this country. Projections are that by 2030, out of a total of 1.4 billion, over 600 million may be living in urban areas. The process of urbanization is a natural process associated with growth and it enables faster inclusion of greater number of people in the process of growth making it more inclusive. Hence it stresses that India's urban agenda must get more attention and spells out certain specific initiatives for this –

1. To step up investment in new urban infrastructure assets and their maintenance. It is estimated that a total of about Rs.40 lakh crore (at 2009-10 prices) as capital expenditure and another about Rs.20 lakh crore for operation and maintenance expenditure for the new and old assets will be required over the next 20 years.
2. To strengthen urban governance with clear accountability to citizens.
3. To strengthen the soft infrastructure (in the form of capacity of human and organizational resources) simultaneously with the building of the hard infrastructure.
4. To give adequate emphasis to long term strategic urban planning to ensure that India's urban management agenda is not limited to renewal of cities. It must anticipate and plan for emergence and growth of new cities along with expansion of economic activities there in.

5. To address the basic needs of the urban poor who are largely employed in the informal sector and suffer from multiple deprivations and vulnerabilities that include lack of access to basic amenities such as water supply, sanitation, health care, education, social security and decent housing.
6. To ensure environmental sustainability of urban development.

The approach paper talks of a two prolonged strategy to bridge the gap in resources required to meet the initiatives: to create a policy environment for fostering cost saving innovations and mobilization of resources through innovative methods of financing. It calls for attracting private investment in all areas of urban infrastructure under an extended 4 P framework – People- Private- Public-Partnership. Best practices and models for PPPP must be evolved and deployed for India's urban management agenda to succeed.

10. Policy recommendations

1. Provision of urban infrastructure and ensuring service delivery to improve the quality of life of urban dwellers in general and the urban poor in particular. The two major challenges of urbanization, namely financing of urban infrastructure and meeting the energy needs of the emerging cities needs to be addressed on a priority basis. And the focus of investment should be on asset creation as well as management.
2. More attention needs to be paid to develop strong economic bases for small and medium cities neglected so far. The mega cities have reached the level of saturation so far as employment generation is concerned as reflected in a decline in their growth rates of population.
3. There is a strong need for significant withdrawal of work force from primary activities and an enhanced growth of non-agricultural employment for which the country needs long term balanced regional and urban planning which should be more broad-based.
4. There must be greater integration of the urban and rural economy.

11. Conclusion

At the end one must acknowledge that each urban conurbation is distinctive and solutions will have to be found locally. There is no 'one size fits all' kind of solution to the urban problems. As per population projections, in 2026 level of urbanization will be different in different states of India (Table -6).

Table – 6 : Grouping of States according to Level of urbanization in 2026

States/UTs	Urban Population Percent (2026)	Percent Share of Total Urban Population 2026
Urban States (Mainly A.P., Delhi, Gujarat, Haryana, Karnataka, MP, Maharashtra, T.N. Punjab)	50.9	68.6
Average urban states (Mainly Chhatishgarh, J & K, Jharkhand, Rajasthan, Kerala, UP and Uttarakhand)	28.6	24.5
Low Urban States /UTs (Mainly Bihar, H.P., Orissa and North East)	15.5	6.9
Total	38.2	100.0

Source : Population projections for India, 2001 – 26, Registrar General of India, 2006

These projections reveal that in 2026, India will have 11 states identified as the urban states and 11 mega cities. Hence, India's future urban strategy should recognize these differences and plans need to be formulated accordingly. The World Development Report(2009)'s main message is that economic growth is going to be unbalanced but development can still be inclusive and it suggests a policy framework to help nations benefit from urbanization. This report suggests a different policy priority for regions having different levels of urbanization. Areas with incipient urbanization should prioritize provision of basic urban services and improvement of land market. For areas with intermediate urbanization the priorities should include besides the above two, investing in infrastructure in around the growing cities. Advanced urbanized areas should focus on well-functioning land markets, representative management, state- of- the- art transport infrastructure and social policies to integrate low income residents. These suggestions should be kept in mind while tailoring particular solutions to the specific problems and challenges of urban settlements of our nation.

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Urban Housing Problem in India and The Need for Inclusionary Housing Policies : An Analysis

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INTRODUCTION

Housing is one of the primary human needs. It is second only to the need for food and clothing. From a macro perspective, housing development can prove itself to be a growth engine for a nation, particularly a developing nation like India. Housing has been one of the top priorities for the various governments in India since the seventies. The need for housing has been increasing at a phenomenal pace in India and so also the need for housing finance. Since the growth in supply of housing could not keep pace with the growth in its demand, housing shortage has been on the rise over the years. Housing finance industry which was relatively dormant till the early nineties underwent sweeping changes ever since the initiation of financial sector deregulation measures in the 1990s. The reform measures have brought about several changes in this industry, the first and foremost being the fast growth rate in the industry coupled with cut-throat competition among the players. This trend has been quite prominent since the entry of commercial banks into the housing finance arena in the early 2000s. However, in spite of the impressive growth in housing finance over the years, there are growing apprehensions regarding its inclusiveness, i.e. accessibility to the common man, the underprivileged sections of the society to housing finance etc. Of late, it is widely recognized that formal housing finance system, particularly the commercial banks (CBs) – most dominant among the players – is fast becoming exclusive in operations, with nearly 90 percent of the total housing credit going to the rich and upper middle income group, primarily the salaried class. The case of housing finance companies (HFCs) is quite similar in this regard. The poor and other marginalized sections are often deprived of adequate credit facilities for housing purpose. Studies have revealed that urban housing poverty is much more acute than the rural probably because of the very fast process of urbanization coupled with constant rural to urban migration.

Analytical Significance

On the basis of available literature, three facts deserve focused attention. First, housing development is of utmost significance to a developing nation like India with a growing gap between housing demand and supply. Secondly, there is an urgent need for a balanced and inclusive housing finance system for fast economic development of the nation, in view of the extreme diversities in the socio-economic profile of its population, majority of the population being outside the reach of the formal housing finance system. Thirdly, alternative models for housing development particularly by way of governmental interventions through 'inclusionary' housing policies are essential for solving the housing problem in India, particularly the urban housing problem which is becoming more acute. In this context it is meaningful to make an exploratory study to suggest appropriate housing policies at the macro level.

Objectives of the Study

- (i) To make a brief overview of the housing situation in India from an international perspective, including the major national and global trends in housing.
- (ii) To make a detailed analysis of housing finance scenario in India, its changing landscape over the years with focus on the post reforms (second phase) era of FY 1997-2010.
- (iii) To study the major international experiences in housing the poor particularly the proven and time-tested models that can be replicated in the Indian scenario.
- (iv) To make pragmatic suggestions for faster development of the housing finance system in India in an inclusive and sustainable manner, considering international experiences as well as national realities and peculiarities.

Part – I

Housing Scenario in India and the Institutional System for Housing Finance

Despite the fact that investment in housing is an important driver of economic development of any nation, in India housing finance remained as an activity that failed to occupy the key position that it deserved during the early days of planned development. Only during the late seventies there was any organized attempt to set up an institutional mechanism for the purpose of providing housing finance to the needy sections of the society. It was only in 1977 that HDFC (Housing Development Finance Corporation) – the pioneer development institution for housing finance in India, the private sector – was set up, though a fully owned government company HUDCO (Housing and Urban Development Corporation) was set up way back in 1970 to undertake housing and urban development programmes. Furthermore, it was after one more decade (1988, to be specific)

that a formal housing finance system emerged in India with the formation of National Housing Bank (NHB) in 1988. At that time nearly 80 percent of the housing stock in the country was financed from informal sources (RBI, 2009).

There has been an appreciable growth in housing finance by institutional intermediaries in housing finance in India, in the post reforms era. Among these agencies, commercial banks (CBs) and housing finance companies (HFCs) alone are the prominent ones. The share of the third agency viz. ACHFs (Apex co-operative housing federations) that serves the common man and hence the most inclusive of the three, however, has of late become insignificant (Table 1).

Table 1: Housing Loan Disbursements by various Institutional Agencies.

(Rs. in Crore)

Agency	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY: 2008
CBs	5553.11	8566.41	23553.70	32816.39	50398.00	58623.00	69859.00	78242.00#
HFCs	12637.85	14614.44	17832.01	20862.23	26000.00	30109.00	40141.00	46164.00
ACHFs	867.72	677.58	641.48	623.08	421.10	520.00	550.00@	550.00@
Total	19058.68	23858.43	42026.86	54301.70	76819.10	89252.00	110550.00	124956.00
Growth (%)	—	25.18 %	76.15 %	29.21 %	41.47 %	16.18 %	23.86 %	13.03 %

Source: (1) Report on Trend & Progress of Housing in India for 2001- 2006, NHB, New Delhi.
 (2) Report on Trend and Progress of Banking in India for 2007-2008, RBI, New Delhi.
 (3) India's Financial Sector: an Assessment, RBI, Report of CFSA (Committee on Financial Sector Assessment), March 2009].

Notes: @ Exact figures of co-operative housing disbursals are not available from the RBI/ NABARD/ NHB sources. Thus, 550 Cr. is taken as an estimate for these two years.

Estimated at 12% above FY 2007 figure, 12% being the estimated growth (FY 2008).

In spite of the appreciable growth of institutional finance to housing in India, the housing shortage is still on the rise, particularly since the 2000s. As of FY 2007 (viz. the end of the Xth Plan, 2002-07), the total urban housing shortage itself in India was 24.71 million units. (Besides, there is another 7 million units towards the rural housing shortage) (RBI, 2009) (Table 2). Another notable fact is that the housing shortage almost entirely (over 99 percent) relates to the poor sections of the population (low income group and economically weaker sections).

Table 2 : Housing Stock and Shortage, 1991-2007 (in millions)

Year	Housing Stock (in millions)				Housing
	Pucca	Semi-Pucca	Kutchha	Total	Shortage
1991	29.80	06.20	03.20	40.70	08.23
1997	40.07	06.64	03.35	50.08	07.57
1998	42.13	06.72	03.37	51.85	07.36
1999	44.28	06.80	03.40	53.67	07.18
2000	46.55	06.83	03.42	55.56	06.93
2002	41.17	08.08	02.74	55.80	10.56
2007	47.49	09.16	02.18	66.30	24.71

Source: Compiled from: Annual Report 2006-'07, Ministry of Housing & Urban Poverty Alleviation, Govt. of India; in *The Economic Times*, 13 Aug. 2007, Chennai edition.

Thus, the problem of housing shortage is still acute in India, indicating the need for alternate models for inclusive housing development – one that offers affordable houses to the masses. In fact the housing shortage grew almost 4 times during the period FY 1991– 2007. It is worth noting here that mortgage to GDP ratio in India stands at an abysmal level of 7.40% (as of 2008) (RBI, 2009) which is one of the lowest among the world nations – whether developed or developing. Thus, though India's position has improved significantly from 3.4% (2001) to 7.40% (2008), its current status is nowhere when compared with other nations. (Table 3).

Table 3 : Mortgage to GDP Ratio in Selected Countries (as of FY 2005).

(in Percentages)

Country	India	China	Thailand	Korea	Malaysia	Singapore	Taiwan	Hong Kong	USA	UK
MGR#	7.4*	12	17	26	29	32	39	41	80	86

Sources: European Mortgage Federation (2007), Asian Development Bank (2007), RBI (2009)

Notes: * As of FY 2008, RBI, (2009); # MGR stands for Mortgage to GDP Ratio.]

In the second phase of the financial sector reforms, the active participation of CBs in the housing credit resulted in constant rise in their relative market share. The relative share of HFCs has been constantly on the fall, though there is growth in absolute terms

(Tables 1 & 4). Table 5 gives the latest position (without considering the ACHFs, whose share is quite ignorable) shows a marked slow down in growth rates since FY 2006, and this more prominent for CBs.

**Table 4 : Relative Share of Major Institutional Agencies
in the Housing Finance Market**

(in Percentages)

Agency	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
CBs	29.14	35.91	56.04	60.43	65.61	65.73	63.19	62.62
HFCs	66.31	61.25	42.43	38.42	33.84	33.76	36.31	36.94
ACHFs	04.55	02.84	01.53	01.15	00.55	00.51	00.50	00.44
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Computed from figures in Table 1

Note: Assumptions in Table 1 are applicable

Table 5 : Break-up of Home Loan Portfolio among HFCs and CBs

(Rs. Billion)

Particulars	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10*
HFCs	354	468	598	734	912	1082	1219
CBs	894	1347	1852	2310	2557	2724	2918
Total	1249	1815	2450	3044	3468	3806	4137
Credit Growth – HFCs	27%	32%	28%	23%	24%	19%	17%
Credit Growth – CBs	158%	51%	38%	25%	11%	07%	11%
Credit Growth – Total	100%	45%	35%	24%	14%	10%	12%
Share of HFCs in Total Credit	28%	26%	24%	24%	26%	28%	29%
Share of CBs in Total Credit	72%	74%	76%	76%	74%	72%	71%

Source: Housing Finance Companies and Indian Mortgage Market, ICRA, Feb. 2010.

Note: * For the nine months ended Dec.2009, growth rates are annualized over March 2009

Part II

Declining Inclusiveness of the Indian Housing Finance System

While on the one hand there is significant growth in housing finance disbursements over the years, thus resulting in a reasonably high mortgage to GDP ratio of about 8 per cent

as of FY 2010, an equally important fact is the gradually declining reach of the system to the socially and economically backward sections of the population. This necessitates an urgent need for making the system more inclusive in view of the fact that vast majority of the population is unserved or under-served by the current system. In fact, this fact has been specifically pointed out by the industry regulator (NHB) itself in its report viz. *Trend & Progress of Housing in India: 2005*. Further, the fact of losing inclusiveness of the system is reflected in the pattern of the growth rates of the major players (viz. CBs, HFCs and ACHFs) as discussed in the foregoing section whereby it has been observed that the co-operative sector institutions (ACHFs) – the financial intermediaries which are the most inclusive of all – have almost disappeared (Table 4). Thus, it follows that unless the major players viz. CBs and HFCs are made more inclusive through appropriate policy initiatives the situation is very likely to become worse in the future. It may be noted that providing housing to those in the middle income, low income as well as socially backward and marginalized sections of the society has become vital for balanced economic growth. This in turn necessitates modification of the strict income-based credit dispensation as followed by the CBs and HFIs; and above all suitable governmental interventions by way of inclusionary housing policies that earmark a specific percentage to such segments.

Table 4 : General Profile of the Customers in Housing Finance: Agency-wise Details.
(Percentage)

ACHFs		CBs and HFCs	
Types of Customers	% Share		
Economically Weaker Section (EWS) and Low Income (LIG)	75	<input type="checkbox"/>	Mostly to middle to high income group, and that too salaried class, high level of urban concentration also. (Nearly 90%)
Middle Income (MIG)	18	<input type="checkbox"/>	Majority of the population is un-served /
High Income (HIG)	07		under-served [the low income group (LIG),
TOTAL	100		the self-employed, rural populace etc.]

Source: (1) *Trend & Progress of Housing in India 2004*, NHB, Govt. of India. p.113,

(2) *Trend & Progress of Housing in India 2005*, NHB, Govt. of India. p. 54.

There has been a pro-rich orientation in respect of housing loans disbursed by both the major types of housing finance intermediaries viz. CBs and HFCs. Table 7 shows this trend in respect of housing finance exposure by CBs in India (FY 2001 to 2005). Table 8 shows the trend in respect of a typical HFC (LIC Housing Finance Ltd.) for the period (FY 2001 to 2007).

Table 7 : Average Size of Housing Loan Sanctions (Incremental) (All CBs)

(Rs. in Lakhs)

Financial Year	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
Av. Loan Amount	01.02	01.81	02.00	02.81	03.45

Source: *Trend and Progress of Housing in India 2004*, NHB, Govt. of India, p.113.

Table 8 : Average Size of Housing Loan Sanctioned by a Typical HFC (LICHFL)

(Rupees in Lacs)

Financial Year	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Av.Loan Amount	03.13	03.31	03.83	04.26	05.07	05.92	08.27

Source: *Annual Report of LICHFL, 2006-'07*, LICHFL. p.33.

Note : In fact, LICHFL is having 97% of its total housing portfolio under the individual residential housing category. Information in respect of the entire HFC segment or that of other major players is not available.

As is evident from Tables 6 to 8, the housing finance exposures by CBs and HFCs are increasingly becoming pro-rich, pro-salaried class and exclusive of the poor. These institutions assess credit-worthiness of the customers based on income criterion wherein the income from salary, business, or profession is taken into account. Because of better stability of income, they always prefer the salaried class. It is estimated that more than 90 percent of the individual housing finance exposures of CBs and HFCs goes to the salaried class and the balance goes to the business or professional class, the share of agriculturists and other rural populace being virtually nil. In the case of project financing (i.e. financing housing societies, builders, developers etc.) it is obvious that the ultimate beneficiaries are always the rich. This underlines the need for imposing some inclusionary policies that earmark a particular percentage of the total housing units to the low income and the marginalized.

Though the government has already earmarked specific amounts to be disbursed to the poor through various schemes like Golden Jubilee Rural Housing Finance (GJRHF) scheme, the same is only a meager portion of the total housing finance portfolio of these agencies. Moreover, here also these loans are available only to those who fulfill the income-based eligibility criteria stipulated by these agencies. Often, the assessment criteria are more or less similar to those of general schemes, except for slight changes as stipulated by the regulatory or refinancing agencies. According to the latest estimates (2007) of National Sample Survey Organization (NSSO), the housing problem in urban India is

more acute in urban India than in rural India. Further, it has been pointed out that one out of every seven Indian urban households live in slums. In fact, urban housing shortage has increased by 134% in the six years' period 2001 to 2007. Moreover, there exists a huge disparity between the number of dwelling units targeted and the number of units constructed, in respect of both of the two special housing schemes for the poor viz. (i) housing for economically weaker sections, (ii) housing for low income group. Table 9 is self-explanatory in this regard.

Table 9 : Housing for the Poor: Wide Gap between the Targets and Achievements

Name of The Housing Scheme	Target for 2006-07 (Units) (Nos)	Achievement (Units) (Nos) till Aug. 2007 & Growth %
Housing for Economically Weaker Section	1,14,000	22,960 (20.14%)
Housing for Low Income Group	24,003	2,251 (09.38%)

Source: NSSO Estimates (2007) cited in *The Economic Times*, Chennai Ed. dt.13 Aug. 2007

In short, in respect of specialized schemes also, the performance has been quite disappointing. Thus, one of the worst challenges to Indian housing finance system at present is that of making it more inclusive and hence equitable. This has got special significance in respect of the urban areas. Another need is that of integrating the housing finance market – an integral part of the financial markets – with the entire financial system by ensuring its active participation in the secondary market as well.

In view of the foregoing, the following four facts deserve mention; (i) Mortgage to GDP ratio in India is relatively very low (7.4 percent) and hence there is huge growth potential for the market; (ii) there is huge and growing housing shortage, particularly among the low income groups; (iii) there is marked decline in the housing finance exposure by the formal institutional agencies since FY 2006, the share of co-operative sector institutions (ACHFs) has been constantly declining and has of late become virtually nil (iv) housing development has got immense potential for national economic development, for a developing nation like India.

Part III

Housing the Urban Poor: An Overview of the Cross-Country Experiences

As already noted, fast growing pace of urbanization is the main reason behind the alarming growth in urban housing poverty and in most of the developing countries that have gone for economic deregulation in the recent past, the problem persists. However,

some of the economies have been successful in tackling the housing problem reasonably well. Worldwide, because of the rapid pace of urbanization, slum formation is an ever growing problem. Table 10 shows the fast pace of urbanization that is going on the world over. By 2030 about 60 percent of the global population is expected to be in urban areas.

Table 10 : Global Trend in Urbanization: 1970 – 2030

Particulars	1970	2000	2030
Urban Population (%)	37 %	47 %	60 %
Rural Population (%)	63 %	53 %	40 %
Total Population (%)	100 %	100 %	100 %

Source: UN – Habitat, Global Urban Observatory 2005

The worst part of urbanization is the formation of slums – places where people have to live in highly congested and unhealthy surroundings devoid of the basic amenities of life like clean water, sanitation facilities etc. Slums adversely affect the personal and socio-economic wellbeing of the dwellers and also hinder the economic development of the nation as a whole. Globally, nearly 1 billion people live in slums. Further, it is estimated that nearly 60 percent of the urban population typically live in the slums whereas the remaining live in non-slum areas. However, just 05 percent of the urban land is occupied by the urban slum-dwellers while the remaining 95 percent goes to the privileged rest who accounts for 40 percent of the population. Table 9 shows the global trends in slum formation and urban growth.

Table 11 : Global Trend in Slum Formation and Urban Growth.

Particulars	Regions	Urban Growth Rate	Slum Growth Rate
Urban Growth	Latin America and the Caribbean	02.21	01.28
Significantly higher than Slum Growth	Northern Africa	02.48	-00.15
	Eastern Asia	03.39	02.28
	South-Eastern Asia	03.82	01.34
Urban and Slum Growth Similar	Western Asia	02.96	02.71
	Southern Asia	02.89	02.20
	Sub-Saharan Africa	04.58	04.53
Developed World		00.75	00.72
World		02.24	02.22

Source: UN-Habitat, Global Urban Observatory 2005

It may be observed from Table 11 above that, in general, slum formation takes place almost at the same pace as the urbanization. For the world as a whole as well as for the developed nations this is the trend. For certain regions urban growth is faster than that of slum formation. The UN-Habitat estimates that in order to ensure that the shelter-less people do not end up in slums, at the global level we need a new city of with one million population every week for the next 20 years. Further, in India, with a huge housing gap of nearly 25 million units, it is estimated that it requires 5,00,000 units every year for the next 20 years. Moreover, it is well recognized that markets will not meet the housing needs of the poor people. Regulatory regimes for housing for the poor, like the Urban Land Ceiling Regulation Act (ULCRA) in India have also been found to be not effective because of poor governance. However, housing schemes through subsidy and incentives for the private sector have been seen to be effective in many countries. Some of these experiences are given in next section.

In China, the housing market was liberalized only during the late nineties. For people living in sub-standard living conditions (slums), a 'one-time' equity grants based on the market value of their existing housing are given to enable them to access mortgage instruments. Land leases are auctioned to developers to supply housing on a home ownership basis. Developers are provided incentives in the form of tax reductions or tax exemptions. Accordingly, China could develop more than 20 million housing units during the last five years.

Chile has pioneered in the up-front capital subsidy programme in 1977. This programme has eliminated all slums from Chilean cities. Here, on the supply side, social housing is built by the private sector. On the demand side, subsidies are given to poor families to increase effective demand for the private 'social' housing. Chile has set aside 05.8 % of its national budget for providing such subsidies.

In South Africa (along with Singapore, Cuba and Sweden) has got one of the best success stories in providing housing for the poor called social housing. Here minimum standards for housing and services have been laid out by the Government. A viable market for low-cost housing has been established through subsidy programme. This has been made possible through establishing partnership with housing institutions, communities, the private sector and NGOs. Accordingly, 1.4 million houses with secure tenure have been constructed in the last ten years for the poorest of the poor.

In Thailand, "The Baan Mankong" (meaning "Secure housing" in Thai) Program has channeled government funds through the Community Organizations Development Institute. Thai Government has earmarked a budget of about US\$ 470 million for the infrastructure subsidy and housing loan interest subsidy. This works out to US\$ 1650 per family. Accordingly, Thailand puts its existing slum communities (and their community networks) at the center of a process of developing long-term, comprehensive solutions to problems of land and housing.

Apart from the four global success stories (viz. China, Chile, Thailand and South Africa) in respect of urban housing poverty alleviation as discussed above, other glaring examples (that followed more or less similar pattern of participatory or partnership form of development) include Brazil, Egypt, Mexico, and Tunisia. In all these countries, the respective central governments have been in the 'driving seats' in the implementation of inclusive policies for housing, land reforms and regularization.

Some low-income or middle-income countries like Colombia, El Salvador, Philippines, Indonesia, Myanmar and Sri Lanka, have managed to prevent slum formation by anticipating and planning for growing urban populations by investing in low-cost and affordable housing.

In view of the success stories as noted above, it may be noted that slums are a reflection not of market failure but of societal failure. The poor must have access to housing in an affordable way. Since market forces will never provide housing that the poor can afford, and further market forces will never have the ability to do so until these masses cease being poor, it is up to government to take the initiative. The government can stimulate the creation of sustainable and affordable housing for the poor through the involvement of private sector. Reform measures in (i) the land (grant of land security to poor, reduced government interventions in land market), (ii) finance (down marketing housing finance, fiscal incentives to the private sector developers, micro-finance institutions), (iii) capital subsidies targeted subsidies in various forms (like, up-front subsidies to the poor, or through savings institutions, or to the developers). One of the key requisites for such initiatives to be successful is that of ensuring a governance system that is open, transparent and is able to implement the 'rule of the law' in its true letter and spirit. In tune with the motto of "Affordable Housing for All" envisaged in NUHHP 2007 (National Urban and Habitat Policy 2007) of Ministry of Housing and Urban Development, Government of India, it may be stated that there is the need for 'inclusionary' housing policies, both at the Centre and State levels. The housing policy of the state of Kerala (2011) should be a model for others.

Part – IV

Housing for Economic Development: A Global Perspective

Housing sector plays a pivotal role in economies across the globe. The real strength of the housing sector lies, not only in its direct contribution to the economy but also its "multiplier" or, "ripple" effects ie. ability to stimulate economic activity in other industries in the economy. While generation of revenues and employment opportunities form some of the direct contributions to the economy, indirect benefits include the increased activity of firms which supply materials like cement, steel, wood etc. and other allied services. The global trend in respect of housing prices is eventually that of downward. As per the

statistics of 'The Economist' (quarterly report on housing), the annual rate of house price inflation has slowed down since the last quarter of 2005 in top 10 out of the 20 countries (Table 6). It is observed that trends in Indian housing are broadly following the global trend in this regard. Since a downward trend is inevitable for any cyclical movement, as is experienced in India of late.

Table 6 : House Price Indicators of 'The Economist' – Top Twenty Countries.

Country	Latest	2004-'05 on a year earlier	%Change (1997- 2006)	Country	Latest	2004-'05 on a year earlier	% Change (1997- 2006)
Denmark	23.3	22.8	115	New Zealand	08.8	15.8	105
South Africa	14.7	17.8	351	Australia	08.3	02.3	135
Belgium	11.8	20.8	118	Italy	06.2	07.3	92
France	11.1	14.8	137	Netherlands	06.2	05.5	97
Canada	10.8	05.2	69	United States	05.9	13.2	102
Spain	10.8	12.8	173	China	05.6	06.2	NA
Ireland	10.6	08.2	253	Hong Kong	03.0	08.0	-43
Sweden	10.5	10.5	124	Switzerland	01.8	01.3	17
Britain	10.2	02.9	196	Germany	00.7	04.8	NA
Singapore	10.2	03.9	NA	Japan	-02.7	-04.7	-32

Source: "Banking Scene: Global", *Indian Banker*, Vol. II, No.4, April 2007, pp.39-40.

The utmost need for special housing schemes for addressing the housing needs of the poor in the developing countries has been well acknowledged in the literature. For instance, Gupta, R.G. (1995) has provided a detailed overview of the housing systems in different Asian countries including India. The author has highlighted the shelter strategy at global level, the need for focused attention on housing needs of the poor, and other issues connected with housing. The observation by world famous housing expert Buckley, Robert M. (1996) has also been in favour of special housing schemes through suitable policy initiatives for the shelter-less poor in developing countries, at a time when these countries are facing unprecedented changes because of economic liberalization measures and also in the backdrop of the failure of many centrally planned economies. The role played by often implicit and non-budgetary Government policies on the provision of shelter and housing finance has been pointed out to be quite significant.

The need for creating an enabling environment for housing in the ongoing deregulated era has been pointed out by some experts. McLemore et. al. (2001) in their research paper on international housing market dynamics have pointed out the trends that drive the worldwide demand for housing, thus creating opportunities for capital sources and service providers. The determinants of housing demand include, inter alia, demographics, overall wealth, degree of urbanization, availability and affordability of financing, mobility etc. Of these, demographics is the single most important factor in residential demand. The authors have projected the future housing requirements around the world. Besides, economic activity and GDP growth prospects of countries have been compared to understand the financial implications for housing at different places. It has been pointed out that Asian markets (especially India) will be some of the hottest markets for housing investments in the future. It has been specially mentioned that for developing countries housing availability and affordability are profoundly affected by housing policy. Countries that adopted enabling housing policies have much more affordable and larger dwellings than comparable countries with similar development level but regulated markets.

Many studies have conclusively proved the positive impact of housing on economic development of nations, and many of these are in the US context. Lareach, (2002) has studied the significance of housing sector to the US economy. Housing accounts for 15 to 20 percent of the total GDP of the USA. He has cited the estimates of NAHB (National Association of Home Builders) according to which construction of 1000 single-family homes generates 2448 full-time jobs in construction and construction-related industries, 79.40 Million US Dollars in wages and 42.50 Million US Dollars in combined federal, state and local revenues and fees. It is noted that the supply and availability of affordable housing remains as a deep problem in the US. Affordability problem creates problems in fulfilling the highly valued 'home ownership' dream of Americans. PwC (PricewaterhouseCoopers) has estimated that multiplier effects from a single home sale amounts to about 0.28 percent of the GDP which translates to 5,100 US Dollars per home sale. Another study in the US context has been that of National Association of Realtors (NAR) (2003) wherein the implications of housing investments on national GDP of the US have been studied. It has been revealed that because of multiplier effects of housing investments on other industries, each dollar increase in housing activity in the US could increase the overall GDP of the country by 1.34 US Dollars to 1.62 US Dollars. Yet another study in the US context is that of Sacramento Regional Research Institute (2004). It has provided an economic perspective of the importance of housing industry in California, USA in terms of economic activity and job creation. It has been pointed out that housing sector is the second largest industry group in terms of its contribution to GDP; second only to wholesale and retail industries.

British Columbia Real Estate Association (BCREA) (2004) has studied the multiplier effect resulting from the sales of residential real estate units on British Columbian

economy. The research has studied the economic impacts of the sale of single residential property using BC Input-Output Model (BCIOM), inputting the expenditure data, like, sales commissions, legal fees, transfer taxes, and post-sales expenses. The report has highlighted that not only construction, but also sale of a built unit can trigger unbelievable multiplier effects. Rhode Island Public Expenditure Council (RIPEC) (2004) in their research report has examined the key issues plaguing housing market of Rhode's Island and the adverse consequences of the same on the state economy. The report has highlighted the massive demand and supply imbalance, mainly attributed to a faster rise in housing prices as compared to income growth. It has been observed that higher prices for existing home owners create a significant positive impact on personal assets. At the same time, the significant price pressure experienced in the housing market puts strain on personal resources and hence housing demand. This situation may worsen with continued immigration into Rhodes. The report has warned that above state of affairs for the housing sector in Rhodes would have a slow, steady and negative impact on Rhode Island's business community, particularly as a major pressure on wages. Besides, the situation of escalating costs would adversely affect the competitiveness of the economic climate.

A number of major studies have been done in the European context. The role of housing in economic development of Welsh economy has been studied by Pickernell, D et. al (2002). The significance and scope of construction finance and housing-related activities in the Welsh economy has been studied, by analyzing it under two categories, (i) construction, and (ii) non-construction. It has been observed that housing-related construction and finance account for about 10 percent of all Welsh employment and 9 percent of GDP. Besides, employment in housing-related activities is at least 50 percent greater than the combined employment in automotive and electronic sectors, and more than three times greater than agricultural employment. Another major study in the European context has been done by Barker, K (2004) who studied the lack of supply and responsiveness of housing in UK. The author has made a few specific policy recommendations. It has been pointed out that UK has experienced a long-term upward trend in house price, creating problems of affordability. The volatility of the housing market has exacerbated problems of macroeconomic instability and had an adverse effect on economic growth. Further, it has been noted that most of the major cycles in UK economy over the past 30 years have been associated with instability in the housing market. Another study in the UK context has been done by DTZ Consulting & Research (2006). Accordingly, (i) housing policy has got a major role to play in regional and sub-regional economic development, and that quality and range of housing available in an area is an important consideration in attracting skilled labour; (ii) housing policy has got a major role to play in tackling deprivation and social exclusion; (iii) worsening housing affordability constrains economic capacity to some extent.

Apart from the studies done in the American and European contexts, there are a number of research evidences from other parts of the world. For instance, Peng, W et. al (2001) have studied the housing market of Hong Kong during the Asian Financial Crisis of 1997-'98. It has been noted that changes in property prices affect other parts of the economy through a number of channels. Based on empirical evidence, the authors have pointed out that decline in property prices have reduced private consumption to such an extent that it accounted for almost half of the overall decline. The authors have conclusively proved that a decline in property prices has had negative effects on the fiscal balance, as land and other property-related income declined.

A notable research in the Asian context has been done by Farrell, Diana (2003) whereby the vital role of competition in the housing construction – a non-tradable sector in any economy – has been studied. The author has studied in detail housing construction in Japan, Korea and India. It has been observed that housing construction is one of the few markets where, even with a fully open market, few foreign firms would be prepared to enter. It has been observed that FDI cannot be looked upon as an option to rescue housing. The author points out that two key factors are responsible for low productivity in housing, viz. the product mix and the degree of price competition. The author has suggested some form of trade-off between the mutually interlocking problems of product mix and price competition. Two intervention strategies are suggested (i) creating scale to optimize DFM techniques and (ii) achieving greater pricing transparency.

Harris, R and Arcu, G (2006) has pointed that since 1945 housing experts have articulated three views about the role of housing for economic development. Accordingly, as per the first view (that existed in the early post-war decades) housing has been seen as a social expenditure and a drag on growth. A second view by a minority of experts has been that housing could be an important adjunct to specific development projects, usually in isolated locations. The third view existing since 1970s is the most popular one and is widely recognized in the modern days. Accordingly, housing is increasingly recognized as a contributor to growth, not only because house building is a major employer with large multiplier effects, but also because housing is seen to have social consequences with diverse economic effects. A very recent work by Tibaijuka, A. Kajumulo (2009) has pointed out that despite having a central role in economic growth, housing is treated as a sector of mere social good. The study seeks to raise awareness about the central role of housing in economic development, and to propagate this message to all.

In view of the foregoing, it may be clearly inferred that (i) housing investments have got tremendous potential for economic development of nations – both developed and developing, (ii) affordability is the most challenging housing problem, even in advanced nations like US and UK. As the Indian housing sector is passing through a transition stage, and is largely following the global trend in this regard. There are clear

indications of slowing down in the growth rates thus resulting in a consolidation at the current level or slightly lower level. In respect of property values also the Indian system has almost reached the peak broadly in line with the developments in majority of the other countries. As already discussed Indian system has the chronic problem of fast growing housing shortage particularly in the urban case. This in turn underlines the need for special policies through governmental interventions. Similar problem exists in many of the recently deregulated developing and emerging economies in more or less similar manner. One of the root causes is the rapid pace of urbanization with fast migration from rural to urban areas.

Part – V

Strategies for Solving Urban Housing Problem and Faster Housing Development in India

As part of the broader framework of according higher priority for financial inclusion, there has been a policy in favour of inclusive housing in India. Accordingly, several programs and schemes of the central and the state governments have been implemented for the benefit of the poorer and disadvantaged sections of the people. National Housing and Habitat Policy 2007 (NUHHP 2007) has set 'Affordable Housing for All' as its official goal. Efforts in the direction of financial deepening and widening have contributed towards the sustainability of the housing sector, and such measures in turn can trigger reforms at the state and local levels. The general policy has been a two-pronged one according to which, (i) the poorer segments of the population will continue to need assistance from the government through subsidy and poverty alleviation programmes, and (ii) market-based solutions would be explored and up-scaled to cover larger segments of the population. It has been pointed out, 'the policy support for the financial sector has come in good measure which has improved accessibility and availability of housing finance in the country, consistent with the trend witnessed in the recent years' (NHB, 2006). In spite of the wider reach as noted above, it has also been admitted by the NHB that, 'while the institutional funds are reaching larger markets across different geographies and different segments of the population, a large segment continues to remain outside the formal sector, in particular the low income segments. Taking a leaf out of the international experience, there is clearly a need for multipronged strategy to reach the un-served segments.' (NHB, 2006). In short, there is much more scope for inclusive housing development in India, an urgent need also.

A recent study (2010)[11] commissioned by NHB (National Housing Bank, the regulator for housing finance in India and a wholly owned subsidiary of the Reserve Bank of India (RBI), the central bank of the country) and funded by the World Bank on housing for the low income groups has brought out based certain interesting facts, based on extensive fieldwork. According to this study, households which depend on the informal

sector for an income have negligible availability of housing finance, though there is an upswing in the availability of finance for them. An earlier study in FY 2006-'07 had revealed that "there is huge unmet need for good quality, low cost housing in urban areas for low income households". Thus, it may be noted that there has been constant rise in the demand for low cost houses over the years. This underlines the growing significance of 'Affordable Housing for All' the official goal of NUHHP-2007 as noted earlier. In the above context that the industry regulator, NHB and Governments (at the Centre and some at the States) have started a few innovative housing schemes for making housing finance more inclusive, and sustainable in the long run.

Some strategies for making the housing finance system in India more inclusive and also for its faster development are discussed below.

Special Economic Zone (SEZ) Act and Rules, 2006

SEZs are seen to have significant potential for increasing the demand for housing and housing finance. Government of India has issued SEZ guidelines for use of allotted areas for non-residential or real estate purpose.

Real Estate Mutual Funds (REMFs)

Real Estate Mutual Fund (REMF) is a fund which has investment objective to invest directly or indirectly in real estate property. This will provide a lot of demand for housing for different types of activities.

FDI in Real Estate Sector and the Real Estate Boom in India

Over the past decade, India has emerged as a leader in the global economy as the third most preferred country for foreign investment. Many foreign companies are starting or expanding operations in India. There has been a considerable surge in foreign investment and joint ventures between Indian and foreign companies. Real Estate is one of the fastest growing sectors in India, with the housing sector growing at an average of 34 percent annually. The importance of the Real Estate sector, as an engine of the nation's growth, can be gauged from the fact that it is the second largest employer next only to agriculture and its size is close to US \$ 12 billion and grows at about 30 percent per annum. Five per cent of the country's GDP is contributed by the housing sector and is expected to rise to 6 percent in the next few years. The Real Estate industry has significant linkages with several other sectors of the economy and over 250 associated industries. A unit increase in expenditure in this sector has a multiplier effect and the capacity to generate income as high as five times. If the economy grows at the rate of 10 percent, the housing sector has the capacity to grow at 14 percent and generate 3.2 million new jobs over a decade.

Housing Finance through innovation: Reverse Mortgage Loan (RML)

The senior citizens segment of India has for long been unable to access institutional housing finance. Conventional loan programmes of banks or financial institutions do not

provide scope for financing this section of the population even against security. In order to address this void, NHB introduced Reverse Mortgage Loan for senior citizens who owned a house. The Reverse Mortgage Loan (RML) seeks to enable residential property owning Senior Citizens to monetize their home equity for meeting living expenses of any kind without selling their property. The reverse mortgage is so named because the payment stream is "reversed" i.e. instead of the borrower making monthly payments to a lender (as in a conventional mortgage), a lender makes payments to the borrower.

Various Innovative Schemes on Housing Development and their Impact : A Review

The different innovative schemes on housing finance and development have had considerable impact on Indian housing scenario. The very recent study (2010)[11] commissioned by the NHB and funded by the World Bank on low-income housing in India finance has categorically stated that there has been 'dramatic increase' in the supply of low income houses in urban India. Equally important is the remark that there is a huge and rising demand for houses. Thus, what follows is that though there has been significant impact of various schemes, particularly on urban housing, the same could not keep pace with the fast growing demand for such financing schemes. In short, the various new schemes have to be aggressively pursued in the days to come with added vigor in order to match the growing demand. The favourable macroeconomic scenario and robust financial sector set the requisite environment for going ahead with such innovations.

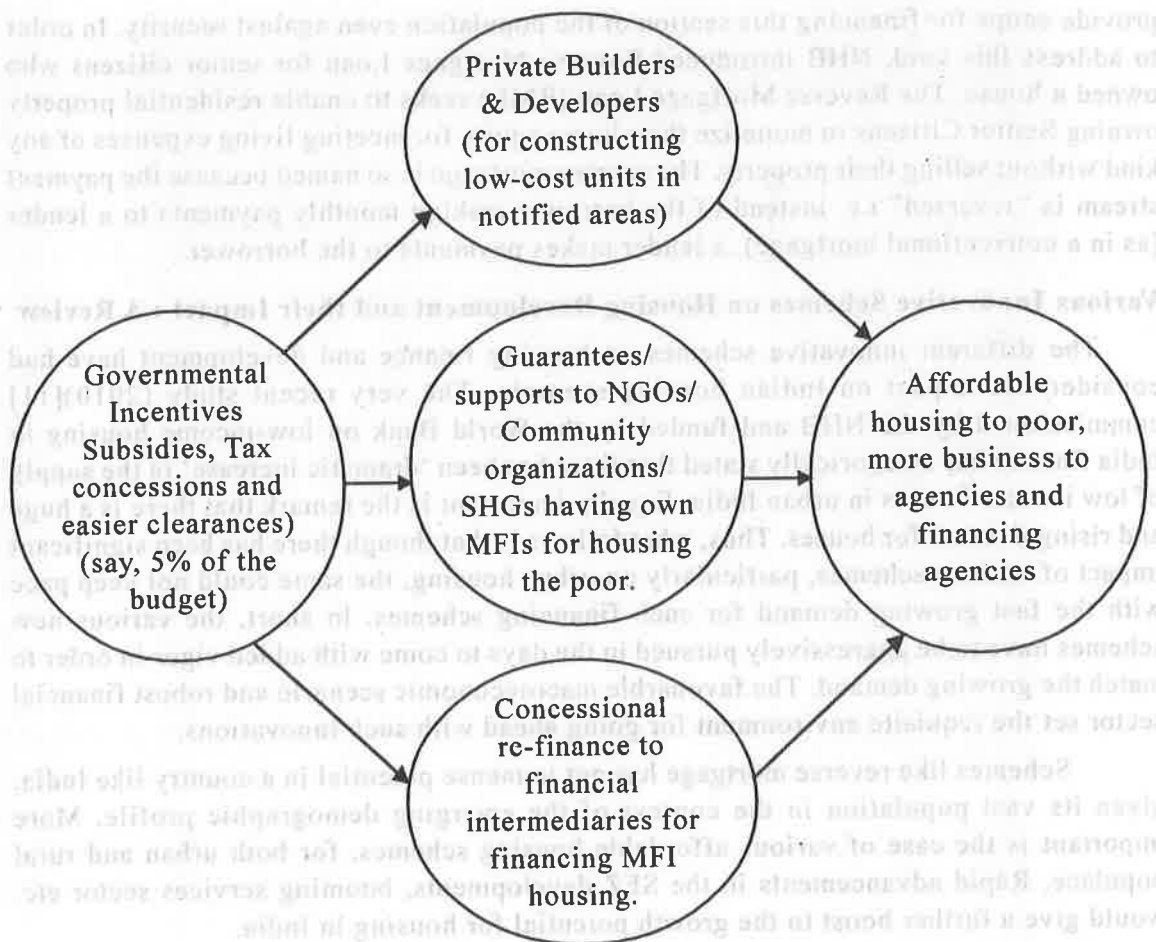
Schemes like reverse mortgage has got immense potential in a country like India, given its vast population in the context of the emerging demographic profile. More important is the case of various affordable housing schemes, for both urban and rural populace. Rapid advancements in the SEZ developments, booming services sector etc. would give a further boost to the growth potential for housing in India.

While the housing schemes are many, having their objectives to reach the unserved segments, often because of the implementation problems these are not reaching the deserving segments. Sometimes, their achievement might be lagging behind the actual targets. While the many of the schemes for the poor (like those for LIG, EWS etc.) have not been very satisfactory, recently introduced schemes as discussed above (like, Bharat Nirman) are progressing in a time-bound manner.

Part VI

Solving the Urban Housing Problem in India: Housing Micro Finance Models

In view of the foregoing discussions, micro finance in housing appears to be the most pragmatic model for alleviation of urban housing poverty. Though the success stories of other nations may not be adaptable or replicable as such, the following model seems to be quite logical and pragmatic. (Fig.1).



As per this model, the central government has to take the lead role – the role of an enabler or facilitator. The government provides fiscal concessions (tax rebates, exemptions, tax holidays etc.) for builders and developers for constructing low cost houses in notified urban areas with clear specifications regarding the minimum quality, size etc. as well as the maximum cost of constructions. Apart from fiscal concessions as above, easier clearance of necessary permissions and sanctions (like, transfer of title, building permits etc.) may also be offered to them so that it is practically possible to construct such houses. Besides, NGOs, community organizations, Self Help Groups (SHGs) and such other organizations having adequate track record in social service that come forward to set up micro finance institutions (MFIs) for housing purpose be supported by the government both (i) through financial assistance, and (ii) by providing guarantee for the housing loans that members such MFIs take from financial intermediaries. Further, financing agencies

(like, banks and HFCs) be given refinance at concessional rates for financing such projects. Also, financial intermediaries be provided refinance at concessional rates for onward lending (as housing loans) to poor people belonging to some government-recognized MFI.

Thus, the builders are getting incentives from both the government and financing agencies so that they will find it feasible to undertake such projects. Secondly, the financing agencies are getting finance at concessional rates for lending both (i) to individuals (belonging to recognized MFIs), and (ii) to projects taken up by builders and developers that is recognized by the government or satisfy the requisite norms stipulated by the government. Thirdly, the poor people who belong to MFIs with adequate track record and recognized by the government are getting affordable housing through easier finance, and also guarantee support from the government through the respective MFI. The government may encourage financing income generating activities of MFIs also, so that repayment of loans become easier for the members.

Concluding Remarks

In spite of the various handicaps of the Indian housing finance sector particularly its low penetration, it may be stated that clearly thought out, meticulously designed and carefully articulated schemes for inclusive and sustainable housing development, particularly with the governmental interventions earmarking a specific share (say, 25 to 30) of all such government-subsidized housing schemes for the poor and the marginalized can improve the housing situation in India and that too in a balanced and equitable manner. Such inclusive housing schemes offer considerable promise for the future, given their current growth momentum and also the generally favourable macroeconomic environment. Accordingly, such schemes have to be pursued more vigorously in the future, preferably after gaining insights from the experiences of other countries.

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Urbanization in India : Trends, Perspectives and Challenges

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INTRODUCTION

Urbanization is an integral part of economic development. As the economy develops, there is an increase in the per capita income and also in the demand for non farm goods in the economy. Economy growth influences the rate of urbanization while urbanization in turn, affects the rate at which the economy grows. Urbanization usually results in both economic and social consequences. Economic consequences relate to inadequate growth of formal employment, growth of urban informal sector, open urban unemployment and underemployment. Social consequences relate to over population and deterioration of quality of urban life. As the country urbanizes, the share of National Income that originates in the urban sector also increases. According to UN estimates by 2030, over 60 per cent of the world's population (4.9 billion out of 8.1 billion people) will live in cities. The latest data on world urbanization shows that at the beginning of the 21st century, a number of developing countries did not have even one third of their population in urban areas. In India census 2001 also confirms this slowing down of urbanization in India. But after that it has increased during 2001-2011. In 2001 census India's urban population was 285.3 million that is 27.8 percentage of the total population which increased to 31.16 per cent of the total population in the 2011 census. That is increased by 3.36 percentage point from a decade ago. In this perspective it is required to study about the recent trends and various factors that help in urbanization and what are the probable consequences. Past studies show that urbanization and economic development have long been regarded as inter-connected processes. Urban economists sometimes determine the economic status of a nation by simply counting the number of large cities it has. In fact, the development history of many present-day developed nations has clearly demonstrated a dramatic rise in urbanization as their economies grew (Hughes and Cain, 2003). Studies have revealed that the simple correlation coefficient across countries between percentage of urban residents in a country and GDP per capita is about 0.85 (Henderson, 2003), which appears that urbanization is an inevitable part of a modern society. There has been an enormous literature on the role of urbanization for promoting economic growth. Moomaw and Shatter (1993) related growth and different measures of urbanization using regression techniques

and concluded that urban concentration might stimulate economic growth. Their subsequent study (Moomaw and Shatter 1996), revealed that urbanization not only increases with per capita GDP but also with industry share of GDP. Similar empirical evidences can be found in Abdel-Rahman et al. (2006),

which showed, in a cross sectional analysis, a statistically significant positive relationship between level of urbanity and standard of living, measured by real per capita GDP. McCosky and Kao (1998) found out that even if urbanization is crucial to economic development, its impact varies greatly across countries and time.

Majority of literature assumes that urbanization and economic growth affect each other simultaneously over time – i.e., the former could be both the cause and consequence of the latter. With this background, in this paper a humble attempt has been made to analyse the trends of urbanization in India and in major states and the probable causes of urbanization. It also focused on some of the important aspects of country's urbanization process in the past four decades and the relationship between urbanization and economic development assuming economic growth to be the factor responsible for urbanisation and its implications.

Objectives

The major objectives of the study are;

- i) To study the magnitude (level), trend and regional pattern of urbanization in India.
- ii) To study whether there exists a link between urbanization and economic development.
- iii) To ascertain the factors responsible for urbanization in India.

Methodology

Census is the main source of data base. The study is based on secondary data. In order to understand the (demographic and geographical) dimension of urbanization, the following indicators have been considered here. Some of these indicators are taken as variables for the purpose of analysis.

- i) Level of urbanization : This is percentage of urban population to total population.
- ii) Rate of urbanization : This is average annual rate of change in urban population in percentage.

The indicators of urbanization have been analysed for the period 1971-2011 both at the national and state level. For the purpose of analysis seventeen major states have been included.

To study the relationship between economic growth and urbanization two variables are taken, i.e., state gross domestic product (SGDP) and rate of urbanization. Data has been taken from census to calculate the rate of urbanisation and SGDP data is taken from CSO. Economic growth is measured by SGDP at constant prices (2000). For the purpose of analysis cross sectional and three time period data, i.e., of 1980's 1990's and 2000's are considered. To know the impact of economic growth on urbanization and the effect of urbanization on economic growth two regression equations have been fitted. They are:

- i) $y = f(x)$ where, $y = \log \text{SGDP}$ and $x = \text{Urbanisation}$

$$Y = a + bx + u_1 \quad (1)$$

- ii) $x = g(y)$ where, $y = \log \text{SGDP}$ and $x = \text{Urbanisation}$

$$x = c + dy + u_2 \quad (2)$$

a and c are constants and u_1 and u_2 error terms.

I. Trend of Urbanisation in India

According to Human Development Report (2011) the share of world's population living in urban centers has increased from 39 per cent in 1980 to 48 per cent in 2000 and 53 per cent in 2010. The developed countries have higher urbanization level (79 per cent in 2000) compared to developing countries (46 per cent). Regarding India the trend of urbanization in India from 1901-2011 is presented in table -1. A quick glance at the table shows that there has been a steady increase in the size of urban population in the past 110 years. The urban population of the country has increased from 26 million in 1901 to 377 million in 2001. India now not only has the second largest urban population of the world; the size of its urban population exceeds even the total population of each country of the world except China. In 1901 nearly 10.6 per cent of the country's population lived in urban areas which increased to 31.2 per cent in 2011, nearly 3 times increase in the percentage of urban population in 110 years.

The trend in the rate of urbanization (average annual rate of change in per cent urban) is not very smooth rather fluctuating. The trend shows that urban population of India grew by less than 1

per cent per annum up to 1931. During 1941-51, the growth rate is maximum i.e., 1.50 per cent in 1941 to 2.54 per cent in 1951. During 1951-61 the growth rate of urban population declined from 2.54 to 0.40 per cent because of the declassification of a number of towns due to definitional changes. In the next two decades i.e., during 1961-71 and 1971-81 there was a steady acceleration in the growth rate of urban population from 1.06 to 1.72 per cent. But in the subsequent two decades 1981-91 and 1991 to 2001 the rate of urban population growth decelerated. As evident from the table, the process of urbanization

Table 1 : Trend of Urbanisation in India, 1901-2011

Census Years	Number of Towns	Urban Population (In millions)	Percent Urban	Rate of Urbanization
1901	1916	25.9	10.8	—
1911	1908	25.9	10.3	-0.46
1921	2048	28.1	11.2	0.87
1931	2220	33.5	12.0	0.71
1941	2422	44.2	13.8	1.50
1951	3060	62.4	17.3	2.54
1961	2700	78.9	18.0	0.40
1971	3126	109.1	19.9	1.06
1981	4029	159.5	23.3	1.72
1991	4689	217.6	25.7	1.02
2001	5161	286.1	27.8	0.82
2011	7935	377.1	31.16	1.29

Source : Calculated from Census of India 1991, 2001, 2011 Series -1 General Population Tables

in the post independence period was the fastest during 1971-81. In this period the level of urbanization increased from 20 per cent to 23.3 per cent. In the subsequent period i.e., from 1981-91 to 1991-2001 the rate of urbanization decreases and in 2001 it became less than 1 per cent (0.82). But again during 2001-11 it shows an increasing trend though not much. It has been found out from detailed studies that, the slowdown between 1981-2001 was genuine and could not be attributed to under enumeration, though it was accepted that urban population of 1981 was slightly overstated due to wholesale administrative notifications of towns in some states (Mohan Rakesh, 1996). Again this slowdown is a temporary phenomenon and the trend may not be continued. This has also been supported by 2001-11 census data.

Table 2 : Trend of Urbanisation in the States of India, 1971-2011

India / States	Percent Urban					Rate of Urbanization			
	1971	1981	1991	2001	2011	1971-81	1981-91	1991-01	2011-11
Andhra Pradesh	19.31	23.32	26.89	27.08	33.48	2.08	1.53	0.07	2.36
Assam	8.82	9.88	11.1	12.72	14.08	1.2	1.23	1.46	1.07
Bihar	10	12.47	13.14	13.36	14.37	2.47	0.54	0.17	0.75
Gujarat	28.08	31.1	34.49	37.35	42.58	1.08	1.09	0.83	1.39
Haryana	17.66	21.88	24.63	29	34.79	2.39	1.26	1.77	1.9
Himachal Pradesh	6.99	7.61	8.69	9.79	10.04	0.89	1.42	1.27	0.25
Jammu & Kashmir	18.59	21.05	23.83	24.88	27.21	1.32	1.32	0.44	0.96
Karnataka	24.31	28.89	30.92	33.98	38.57	1.88	0.7	0.99	1.35
Kerala	16.24	18.74	26.39	25.97	47.72	1.54	4.08	-0.16	8.37
Madhya Pradesh	16.3	20.3	23.21	26.67	27.63	2.45	1.43	1.45	0.36
Maharashtra	31.17	35.03	38.69	42.4	45.23	1.24	1.04	0.96	0.66
Orissa	8.41	11.79	13.38	14.97	16.67	4.02	1.35	1.19	1.14
Punjab	23.73	27.68	29.55	33.95	37.49	1.66	0.68	1.49	1.04
Rajasthan	17.63	21.05	22.88	23.38	24.89	1.94	0.87	0.22	0.64
Tamil Nadu	30.26	32.95	34.15	43.86	48.45	0.89	0.36	2.84	1.05
Uttar Pradesh	14.02	17.95	19.84	21.02	22.28	2.8	1.05	1.98	0.6
West Bengal	24.75	26.47	27.48	28.03	31.89	0.69	0.38	0.2	1.38
INDIA	19.91	23.34	25.71	27.78	31.16	1.72	1.02	0.81	1.29

1. Including Jharkhand,

Source: Census of India, 1991, Series – 1, India, General population Tables, Part-II – A (i)
 Census of India, Population Totals, Paper – 2 of 2001 of states, Rural-urban Distribution
 Census of India, Provisional Population Totals, Paper – 2 of 2011 of states, Rural-urban Distribution

State-wise Pattern and Trend of Urbanisation

The urban scene of India cannot be understood properly without understanding the spatial dimension of urbanization and urban growth. Table 2 provides trend in the level of urbanization during 1971-2011 for seventeen major states of India. Till 1991 Maharashtra was the most urbanized state of India, followed by Gujarat and Tamil Nadu. 2001 census

data with respect to level of urbanization shows Tamil Nadu to be most urbanized and Himachal Pradesh least urbanized with only 10 per cent of its population living in urban areas. In the subsequent census in 2011 the census data shows again Tamil Nadu to be most urbanized followed by Kerala, Maharashtra and Gujarat. The people living in urban area in Tamil Nadu are 48.45 percent followed by Kerala 47.72 per cent and Maharashtra 45.23 per cent. Kerala achieved exceptional results where the rate of urbanization became more than doubled (4.08 percent in 1981 to 8.37 per cent in 2011). The reason is, due to high literacy rate people mostly work in manufacturing and service sector and some of the area come under the classification of urban area where 75 per cent male workforce are engaged in non agricultural work according to the new definition of census. In both the census Tamil Nadu has emerged as the state with highest level of urbanization mainly due to a change in definition when following the Nagarpalika act of 1994 all 611 town Panchayats were brought under the statutory towns. Regional pattern of urbanization shows western and southern states remained more urbanized than northern, central and eastern states due to spatial diversity in agriculture and Industrial development. Thus with a few exceptions the regional pattern of urbanization has remained quite stable over the past 40 years. All the four southern states i.e., Tamil Nadu, Kerala, Karnataka and Andhra Pradesh and two western states Gujarat and Maharashtra generally had the level of urbanization higher than the national average whereas in northern states only Punjab and in eastern states only West Bengal have that distinction. There is no consistent trend in the state wise data in the rate of urbanization during last four decades. The more urbanized states registered relatively lower rate of urbanization during 1971-81 and 1981-91. However with the exception of few states like Andhra Pradesh, Gujarat, Kerala and West Bengal the rate of urbanization in other states declined significantly during the last decade. During 1991-2001, Tamil Nadu had experienced the highest rate of urbanization (2.8 percent per annum) because of the administrative declaration of a large number of rural settlements as urban in 2001. The same was true for Kerala in 2011.

Since rate of urbanization does not tell anything about the level of urban or rural population growth rates, in Table 3 average annual growth rate of urban and rural population and urban rural growth differentials are presented for 1971-81, 1981-91 and 1991-2001 periods. It shows that the average annual growth rate of rural population has remained more or less stable during the period 1971-2001. The table shows in general economically developed states have registered lower urban growth rates compared to economically backward states with low and moderate levels of urbanization during 1971 to 2001 with few exceptions like Haryana and Karnataka. It is interesting to note that like Gujarat, Kerala and most backward states have also experienced higher growth rate of rural population mostly due to higher natural increase rates. The growth rate differentials between rural urban populations across the states also do not show any consistent pattern

over the three decades. At the national level there is a steady decline in the urban rural growth differential from 2.05 in 1971-81 to 1 percent in 2001.

Table 3 : Average Annual Growth Rate of Urban and Rural Population and Urban Rural Growth Differentials (URGD) in the Major States of India, 1971-2001

Country/ States	Rural			Urban			URGD		
	1971-81	1981-91	1991-2001	1971-81	1981-91	1991-01	1971-81	1981-91	1991-01
Andhra Pradesh	1.57	1.84	1.36	3.96	4.32	1.46	2.39	2.48	0.1
Assam	2	2.26	1.67	3.27	3.96	3.62	1.27	1.7	1.95
Bihar	1.88	2.26	2.13	4.37	3.02	2.55	2.49	0.76	0.42
Gujarat	2.01	1.52	1.71	3.47	3.44	3.27	1.46	1.92	1.56
Haryana	2	2.29	2.06	4.67	4.34	5.08	2.67	2.05	3.02
Himachal Pradesh	2.06	1.94	1.61	2.98	3.78	3.24	0.92	1.84	1.63
Jammu & Kashmir	—	2.44	2.87	—	4.59	3.62	—	2.15	0.75
Karnataka	1.75	1.77	1.21	4.1	2.96	2.89	2.35	1.19	1.68
Kerala	1.46	0.36	1.01	3.19	6.1	0.76	1.73	5.74	0.25
Madhya Pradesh	1.76	2.24	1.82	4.45	4.39	2.79	2.69	2.15	0.97
Maharashtra	1.62	1.87	1.52	3.36	3.89	3.13	1.74	2.02	1.61
Orissa	1.46	1.79	1.38	5.22	3.62	2.98	3.76	1.83	1.6
Punjab	1.61	1.77	1.23	3.68	2.9	3.76	2.07	1.13	2.53
Rajasthan	2.43	2.55	2.75	4.62	3.96	3.12	2.19	1.41	0.37
Tamil Nadu	1.22	1.33	-0.52	2.47	1.96	4.28	1.25	0.63	4.8
Uttar Pradesh	1.8	2.26	2.13	4.74	3.87	2.82	2.94	1.61	0.69
West Bengal	1.85	2.3	1.69	2.76	2.95	2.02	0.91	0.65	0.33
INDIA	1.78	1.8	1.7	3.83	3.09	2.7	2.05	1.29	1

Source : calculated from Census of India, 1991, Series – 1, India, General population Tables, Part-II – A(i) and Census of India, Provisional Population Totals, Paper – 2 of 2001 of states, Rural-urban Distribution

The above analysis suggests that perhaps India has already passed the phase of rapid urban growth. Tamil Nadu is the first state to experience a negative rural growth rate during 1991-2001.

II. Relationship between Economic Growth and Urbanisation

Although urbanization causes a multitude of practical problems in development, there has been very little research on the relations between development and urbanization. As economic growth is an indicator of development here the Gross Domestic Product is taken as a variable to measure it. By going through different literature it has been found that urbanization and economic growth affect each other simultaneously over time. To verify it a regression analysis has been done. As has already been stated in the methodology, to study the relationship between economic growth and urbanization two variables are taken, i.e., state gross domestic product (SGDP) and rate of urbanization. Economic growth is measured by the Gross State Domestic Product at constant (1999-2000) prices. Urbanisation is measured by the rate of urbanization. Regression analysis has been done by taking both the variables as independent and dependent variable. Table 4a shows the effect of economic growth on urbanization.

Regression Results :

Table 4a : Effect of State gross domestic product SGDP on Urbanisation

Dependent Variable	Urbanisation		
Independent Variable	1980	1990	2000
Constant	-123.498** (43.83)	-147.35*** (42.16)	-161.25*** (69.63)
Log SGDP	18.003*** (5.34)	19.438*** (4.71)	20.90** (7.58)
No. of Observations	17	17	11
Adjusted R ²	0.39	0.50	0.39
F Statistic	11.53	17.00	7.60
Prob(F-Statistic)	0.0042	0.0009	0.022

Figures in the parentheses indicate standard error of the estimated co-efficient.

*** implies the estimated coefficient is significant at 5% level of significance*

**** implies the estimated coefficient is significant at 1% level of significance*

Here, state gross domestic product i.e., log (SGDP) is taken as independent variable and rate of urbanization is taken as dependent variable. The result shows that there is positive relation between the variables. The figure shows that as SGDP increases the rate of urbanization also increases. That is 1 per cent increase in state GDP leads to 18 per cent, 19.45 per cent and 21 per cent growth in urbanization in the 80's, 90's and in 2000

respectively. Thus the result shows that due to a small increase in GDP affected the urbanization process in a positive manner and it is increasing steadily over three decades time period.

The second regression is fitted by taking rate of urbanization as independent variable and State GDP as dependent variable. Table 4b shows the effect of urbanization on State gross domestic product.

Table 4b : Effect of Urbanisation on State gross domestic product SGDP

Dependent Variable	Log SGDP		
	1980	1990	2000
Constant	7.62*** (0.181)	8.21*** (0.186)	8.5066 *** (0.262)
Urbanisation	0.024*** (0.007)	0.027*** (0.006)	0.022** (0.007)
No. of Observations	17	17	11
Adjusted R ²	0.39	0.50	0.39
F Statistic	11.53	17.00	7.60
Prob(F-Statistic)	0.0042	0.0009	0.022

Figures in the parentheses indicate standard error of the estimated co-efficient.

*** implies the estimated coefficient is significant at 5% level of significance*

**** implies the estimated coefficient is significant at 1% level of significance*

The result shows that there is positive relation between the two variables. The figure implies that as urbanization increases the state GDP also increases. That is 1 per cent growth in urbanization leads to a almost consistent growth in State GDP i.e., 2.4 per cent, 2.7 per cent and 2.2 per cent respectively over the same time period. That is, the impact of urbanization on economic growth is somehow a lesser degree than the impact of GDP on urbanization, but both are stimulating each other.

Thus it can be inferred from the above two regressions that in both the cases the variables are positively related and affect each other simultaneously over time. That is if one variable increases the other also increases. But the impact of increase in State GDP on urbanisation is stronger over the time period. While creation of more urbanization may lead to economic growth and thereby affect development process, it can be accelerated more when the state GDP increases. So if a country wants more economic development then it must increase the GDP through which urbanization grows and along with brings

all the facilities like industrialization, employment, water supply and sanitation. Again when urbanization grows GDP is also positively affected. Thus both are self propelling after a certain level.

The Adjusted R^2 values in both the equations indicate that the dependent variable is explained by the independent variable up to 50 per cent as only one variable is taken. The dependent variable will be explained more by the independent variables if more variables are taken.

III. Factors affecting Urbanisation

It has been proved that economic growth and urbanization are inextricably linked and economic growth is one of the factors affecting the urbanization process in a significant way. Economic growth often implies the conversion of rural land to urban uses (residential, commercial and industrial) as regional economies change from an agrarian-based economy to an urban economy based on industry and services. This process occurs in urban areas of developing countries undergoing structural economic changes as well as in exurban regions of developed countries that are impacted by economic growth of proximate urban areas. Various studies pointed out that besides economic growth or GDP there are many factors responsible for urbanization. Daniel Lo (2010), tried to establish a causal link between urbanization and economic growth. He pointed out that for developing countries it is urbanization that leads to economic growth while economic growth leads to urbanisation in developed countries. In this perspective India may be considered as a developed nation. The causal link actually depends on the economic status of a nation.

On a global scale, changes in information, production and transportation technologies have had profound effects on urbanization. To the extent that these changes substitute for geographic proximity, they have vastly reduced the need for face-to-face communications and have greatly increased the mobility of goods, services, labor, technology and capital throughout the world. This marked increase in the pace of globalization has spurred rapid economic growth in many developing countries. Institutional changes, including the transition of socialist regimes to more market-based economies, have also fostered rapid economic development in these countries.

Massive inflows of capital and foreign direct investment (FDI) have transformed urban and rural areas in many developing countries. For example, FDI in the Pearl River Delta region of China has resulted in the transformation of a rural-based economy into an industry-based export economy that is characterized by labor-intensive production processes that consume large tracts of land have spurred substantial rural-urban migration. Spatially, this production has favoured smaller urban places and their proximate rural regions and thus the predominant growth pattern has been a more equal level of urbanization across the region coupled with a declining importance of the primate regional

city (Sit and Yang, 1997). Other determinants of growth in peri-urban areas of China include the rising incomes of a growing class of suburban professionals that seek to escape urban congestion as well as the economic reforms that have allowed rural residents to be more responsive to market forces when making land use decisions (Leaf, 2002). The trend in the growth of smaller urban centers and the emergence of a polycentric urban structure is typical of urbanization patterns in many Latin American regions (Gilbert, 1993). Other empirical evidence of globalization effects on urbanization includes the increasing economic segregation among households (e.g., Calderia, 2000 in Sao Paulo, Brazil) and the increasing spatial differentiation of land uses.

Globalization has spurred urban economies in developed countries to become increasingly service-based with an emphasis on knowledge creation. Former urban industrial centers as well as rural manufacturing-based economies have faced tough transitions as transnational corporations have relocated production and capital investments to developing countries. Some rural areas have established themselves as recreation-based, amenity-rich economies in which high value environmental amenities serve as an attractor of new population growth and economic development (e.g., Shumway and Otterstron, 2001). Examples in the U.S. include Taos, New Mexico and Aspen, Colorado. Given their emphasis on maintaining high valued environmental amenities, the resulting urbanization of these areas presents a challenge for sustainable economic development.

Although increased globalization has clearly had very different effects on urbanization patterns in developed vs. developing countries, the regional effects of some of the main underlying factors (advances in telecommunications, transportation and production technologies) are similar. In both developed and developing countries, there is much evidence to suggest that substantial decentralization of urban areas has occurred (Mieszkowski and Mills, 1993; Irwin and Bockstael, 2004). All of these factors have resulted in a deconcentration of firms away from the central city. Households have also taken advantage of lower transportation costs by moving outward and consuming more land in outer suburban and exurban areas. In addition, urban ills (such as declining schools and public services and rising crime rates) have pushed higher-income households away from central cities into more homogeneous outer suburban and exurban locales, resulting in increased economic segregation and higher rates of per capita urban land consumption. In the U.S., the system of local public financing, which is based on local property taxes, has greatly exacerbated this pattern of household sorting and suburbanization (Brueckner, 2000).

While urbanization is very often the result of economic growth, it also occurs in the absence of economic growth. For example, many metropolitan areas of the U.S. are still urbanizing land despite little or no population growth in recent decades (Fulton, et al. 2001). This is largely the result of the same urban deconcentration forces discussed above,

many of which can occur independent of regional economic growth. In the developing world context, some scholars have suggested that sub-Saharan Africa is a country in which urbanization has occurred to a large extent independent of economic development. For example, some evidence indicates that urbanization in sub-Saharan African cities occurs largely in peri-urban regions, is mainly residential rather than production-based and is driven by domestic investment and migrant's remittances (Briggs and Yeboah, 2001).

It is interesting to note the common urbanization trends that have been documented in many developed and developing countries, including urban deconcentration, peri-urban development and the emergence of a polycentric urban spatial structure. Of course, these processes are also differentiated by their institutional settings and a myriad of policies that cause urbanization patterns to differ from country to country and region to region. In particular, information technologies and transportation changes are also contributing to fundamental changes in urban spatial structure at regional levels within many countries, both developed and developing. It has been found that there are both push factors like population growth, unemployment etc. and pull factors like opportunities in urban areas responsible for urbanization.

In India as evident from the census data rural to urban migration has not been a very important factor in India's urban growth in the past three and its share in urban population growth almost remain constant. The process of reclassification of rural settlements in the category of urban has also slowed down. Thus it seems that the level of urban population growth rate has remained tied up with the level of natural growth rate of urban population. But the rate of natural growth in urban population has declined from 1.97 per cent per annum during 1971-81 to 1.44 during 1991-2001. So it is expected that the overall urban growth rate may decline further in the coming decades unless there is an increase in the net rural to urban migration or faster reclassification of rural settlements into urban category.

IV. Challenges

These new forms of urban spatial structure that are typified by lower densities, polycentric cities and, in some cases, "leapfrog" patterns of development have substantial impacts on local public finances, environmental goods and social structures. Studies from the U.S. on the "costs of sprawl" provide evidence that the public service costs associated with current sprawl patterns of development vs. more compact development patterns are substantially more (e.g., up to 250% of the costs associated with more compact forms). In addition to higher rates of natural and rural land conversion, low density, non-contiguous development patterns can erode local economies of scale in rural economic activities, e.g., agriculture, and have negative impacts on many (although not all) wildlife habitats. Counterarguments in support of sprawl point out that lower density development promotes more affordable housing and that low density, polycentric urban structures have allowed

for the growth of urban areas without significant increases in commuting times. There is transition of the economic structure that has caused a big substantial change of the employment structure. The number of laborers in the agricultural sector has been dropping down rapidly, as they have been switching to working in the industrial and service sector. Though challenges of urbanization are many; the most important ones are water supply, urban slums, shelter, transportation, drainage system, air pollution and congestion.

In the conclusion it may be inferred that economic development has resulted in population growth, improves peoples standard of living and improvement in the peoples standard of living due to economic growth has positive impact on urbanisation which has been proved in our analysis. The vice versa is also true though the impact is less in the present analysis. On the other hand, population growth makes the urban infrastructure overloaded and is the very limitations for long term economic development. Appropriate development policies are, therefore very necessary for urbanizing areas. It is necessary to limit economic development which cause environmental degradation

Finally, it is interesting to note that urbanization patterns also influence economic growth. While a variety of factors influence economic growth, a commonly held view is that it results from productivity gains due to technological innovations and investments in human capital. Endogenous growth theory (e.g., Romer, 1986; Lucas, 1988) argues that the accumulation of knowledge is the key determinant of economic growth and that knowledge spillover, e.g., in the form of information exchange among firms, create positive externalities that generate growth among all firms. Because such spillovers (or more generally, agglomeration economies) are often a function of spatial proximity, the geographic distribution of firms influences economic growth. Likewise, negative spillovers from urbanization, including congestion and high land rents, may deter firms from locating in larger cities and thus have a dampening effect on economic growth in these places. Thus it is necessary to have particular policies to be implemented in urbanizing areas, in addition to common policies.

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Migration and Urbanization in Odisha in the Context of Healthcare Accessibility

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1. INTRODUCTION

Now-a-days, migration has become a common phenomenon. Due to the expansion of transport and communication, it has become a part of worldwide process of urbanization and industrialization. In most countries, it has been observed that industrialization and economic development have been accompanied by large-scale movements of people from villages to towns, from towns to other towns and from one country to another country (Lusome, 2006). Rural urban migration has often been considered to be the major factor for growth of slums in urban areas. United Nations has warned that rapid urbanization and migration would lead to tripling of slum population by 2050 (Kundu, 2003).

India has shared the growth pattern and rapid urbanisation with some of the fastest growing regions in Asia. The country has witnessed around 8% growth in GDP in the last couple of years and has planned to achieve a target of over 9% growth by the end of 11th Plan period. India's urban population is also increasing at a faster rate than its total population (India: Urban Poverty Report-2009). A number of economic, social, cultural and political factors play an important role in the decision to move. The effects of these factors vary over time and place. Various surveys and studies have shown that migrants are disadvantaged relative to the native population regarding employment, education and health. The vulnerability of the migrants and their health and human rights have to be assessed from the framework of accessibility of health and health services in relation to the availability of services, quality of available services and the prior conditions of health (Chatterjee, C.B., 2006).

Urbanization is the process of economic, spatial, and social transformation. Cities can be regarded as the focal points of economic and spatial development in many countries,

while towns play a leading part in social and economic progress. In studying the trend of urbanization in Odisha, India, it is noted that during the last 90 years (1901-91) urban population has increased almost 14 times. Such growth has been due to the large rural-urban migration, in which the inter-district and inter-state movement of the migrant population into urban areas contributed 41.25% to the total population in 1971, 46.57% in 1981 and 40.52% in 1991. By comparing the results of the development with the levels of urbanization for individual district of state cities, it is observed that there is a greater matching between the levels of development with respect to the levels of urbanization. However, urban population growth causes problems such as development of urban slums.

The present paper highlights the causes of rural urban migration in Odisha in general and their accessibility to health-care in particular. The economy of Odisha is predominantly agricultural and the performance in this sector is crucial to the development of the state. The prevalence of small farmers having small sized land holdings, seasonal unemployment, the non-application of modern technology in agriculture in Odisha had forced the people to search for alternate sources of livelihood. People of the rural areas migrate to urban areas within and outside their districts and also to the neighboring states. Migration is an outcome due to the repeated disasters that strike Odisha at almost regular intervals. Cyclones, floods, droughts and famines hit the state at different times in different regions. The coastal region is more prone to cyclones, floods whereas the western districts and southern region are vulnerable to droughts and famines and have created a vacuum in livelihoods. The manifestation of disasters are seen in the poverty, malnutrition, distress sale of paddy, property and even children. Landlessness, indebtedness and lack of livelihood force the people to seek survival options in other far way places (Sansristi, 2006).

1.1 Objectives of the Study:

The present study aims at achieving the following objectives.

- To ascertain the causes of rural-urban migration in the study
- To determine the provision of health-care facilities for the migrants in the study area
- To suggests some remedies to overcome from the problem related to migrants health

1.2 Methodology

The core objective of the study is to determine the areas and causes of rural migration in the State of Odisha in general and ascertain the health care provisions of the said migrants in particular. For this purpose a cross sectional study has been done. The sample respondents of the study are randomly selected from the study area (Bhubaneswar, The

State Capital) and a structured questionnaire has been framed to know the causes of migration along with the healthcare facilities and awareness of the rural migrants in Odisha. The study is of a pilot nature. For this study a very limited sample size of 100 casual workers, seeking work in the labour market on a day-to-day basis. Equal numbers of male and female workers are selected.

2. ECONOMY OF THE STUDY AREA

Odisha is one of the least urbanized states in India. As per the urbanization trends of 2001 census, Odisha is the 24th most urbanized and 5th least urbanized state in India with about 14.97 percent of urban population, which is only higher than Assam and Bihar among the major States. Amongst the districts in the state, the lowest level of urbanization (having less than 5% urban population) is in the district of Nayagarh 4.29% and the highest level of urbanization is in the district of Khurda 42.93 %. 15 districts have urban population below 10% and 5 districts have urban population above 25%. In other words most of the urbanization is witnessed in the coastal districts of the state. The economy of Odisha has been lagging behind the national economy by several decades. Its per capita net state domestic product, a measure of average income, stood at Rs.20200 for 2006-07 which falls behind the national average by about 35 per cent. Moreover, the gross domestic product of the state grew by a considerable lower rate than many other states for a long time despite its high growth potential.

The population of Odisha which was 316.60 lakh in 1991 increased to 368.05 lakh in 2001. This accounted for a decennial growth rate of 16.25% against 20.06% in the previous decade, which is lower than the corresponding growth rates of 21.34% and 23.86% at the national level. As per the 2008 SRS report, the Crude Birth Rate (CBR) for Odisha was 21.4 against the national average of 22.8. The Crude Death Rate (CDR) declined from 13.1 in 1981 to 9.0 in 2008 as against 7.4 at the national level. The density of population which was 203 per sq. km. in 1991 has increased to 236 per sq. km. in 2001, which is lower than the All India average of 313 per sq. km. Out of the total population, 85.01% live in rural areas and depends mostly on agriculture for their livelihood. Urban population constitutes 14.99%. The sex-ratio (i.e. number of females per thousand males) in Odisha has marginally increased from 971 in 1991 to 972 in 2001 and this is much higher than the All India average of 927 in 1991 and 933 in 2001. In respect of SC and ST population also the State fared better sex ratio. As per 2001 Census, the sex ratio among SC and ST was 979 and 1003 respectively as against 936 and 978 at the All India level. As per the 2001 Census, the rural population in Odisha is 31,287,422 and urban population is 5,517,238. The percentage of urban population to total population in Odisha at 14.99% is much below the national average of 27.78%. The projected population of Odisha for the year 2015 will be 425.70 lakh.

2.1 Reasons for migration in Odisha :

Migration is one the most important demographic components to determine the size, growth and structure of population of a particular region, besides fertility and mortality. For a large country like India, the study of movement of population in different parts of the country helps in understanding the dynamics of the society and societal change better. At this juncture in the economic development, particularly in areas, such as, manufacturing, information technology or service sectors, data on migration profile of population have become more important.

Migration in Odisha can be classified under five broad categories- they are; (i) Migration due to extreme poverty and destitutions, (ii) Opportunity migration for better wage and livelihood (iii) Migration due to industrial and development induced displacement, (v) Migration due to natural disasters and armed conflict and (vi) migration due to human trafficking.

3. PRIMARY DATA ANALYSIS :

3.1 Educational Level

From the below table it is revealed that, nearly half of the respondents did not have any schooling. The proportion of female workers with no formal schooling was double that of male workers. However, 8 per cent of the migrants were matriculates.

Table 1 : Educational Level of the respondents (%)

Level of Schooling	Male	Female	All
No formal schooling	32	64.0	48.0
School up to 4 years	6.0	10.0	8.0
5-9 years	30.0	14.0	22.0
Failed matriculation	20.0	8.0	14.0
Matriculated	8.0	4.0	6.0
Above matriculation	4.0	—	2.0
Total	100.0	100.0	100.0

Source: Primary Data

3.2 Marital Status

From the below Table-2, it is revealed that, most of the respondents were married. Thirteen per cent of the respondents were either widowed or separated. While unmarried workers were more among the males, widowed/separated were more among the females.

Table 2 : Marital Status of Migrant Labourers (%)

Marital Status	Male	Female	All
Single	22.0	2.0	12.0
Married	72.0	78.0	75.0
Widowed	6.0	16.0	11.0
Separated	—	4.0	2.0
Total	100.0	100.0	100.0

Source: Primary Data

3.3 Push and Pull Factors of Migration

As may be noted from Table 3, it was the low wages and the lack of opportunities in their native villages which were the primary factors that have pushed them out of their villages. Drought/water scarcity in their villages also has forced some of the respondents to migrate temporarily. The high wage rates and more employment opportunities were the factors that pulled them to Bhubaneswar.

Table 3 : Push and Pull Factors of Migration (%)

Causes of migration	Male	Female	All
Low wage in the village	66.0	63.0	63.0
Lack of job opportunities in the village	40.0	48.0	44.0
Water scarcity/drought in the village	28.0	42.0	35.0
Migration of spouse	0.0	4.0	2.0
Family problems	2.0	2.0	2.0
Total	100.0	100.0	100.0

Source: Primary Data

3.4 Availability of basic amenities for Migrants

From the below table, it is revealed that, 6 per cent of the migrants did not have toilet facility in their places of living, 87 per cent share the toilets with others. The situation has implications not only for the health of the individual migrants but also for public health of the region. It was found that most of the migrant workers use public taps for drinking water and water for other purposes.

Table 4 : Availability of Amenities in the study area

Amenities	Percentage
Toilet Facility	
Separate	7
Common	87.0
No Toilet	6.0
Total	100
Source of drinking water	
Public tap	91.0
pipd water	1.0
Well	6.0
Pond	2
Total	100.0

Source: Primary Data

3.5 Health Related Aspects

It is well known that household environment plays a crucial role in determining the health of its occupant. Overcrowded living conditions of the migrant labourers result in increased transmission of infectious diseases. The non-availability of basic amenities and unhygienic living conditions make the migrant workers vulnerable to diseases. The unfavorable working conditions can also lead to serious occupational and other health problems. Many of the workers have habits which can lead to poor health in the long run. These are presented in Table 5.

Table 5 : Unhealthy Habits

Habits	Male	Female	Total
Drink alcohol	60.0	2.0	31.0
Smoking	70.0	2.0	36.0
Use Pan parag	16.0	8.0	12.0
Chewing tobacco	14.0	48.0	31.0

Source: Primary Data

From the above table, it is inferred that many of the respondents are habituated with drinking alcohol and smoking, which are a way ahead to bring health disasters.

3.6 Illnesses while Working

Scarcity of basic amenities leads to poor health of the working migrants. Eighty seven per cent of the respondents reported having had some diseases while staying in Bhubaneswar. Incidence of fever and headache was very high. One-in-ten respondents were having cough. Some of these problems are occupation related.

Table 6 : Illnesses while Working in Bhubaneswar

Illness	Percent
Fever	81
Headache	71.0
Cough	11.0
Cold	5.0
Pain in leg/hand	4.0
Stomach pain	2.0
Body pain	2.0
Back pain	2.0
Chest pain	1.0
No disease yet	13.0

Source: Primary Data

3.7 Place of Treatment of Illness

Table 7 : Place of Treatment of Illness

Places of treatment	Total
Private hospital/clinic in Bhubaneswar	36.8
Medical shop	29.8
Government hospital in Bhubaneswar	20.7
RMP(Register Medical Practitioner)	8.1
Did not go for treatment	2.3
Total	100.0

Source: Primary Data

One-third goes to a private hospital/clinic. It is important to note that a significant proportion (30 per cent) approach a medical store for treatment. Only one-fifth of the workers approach a government hospital. Eight per cent of those who had some disease while working in Bhubaneswar reported that they had gone to RMP (Register Medical Practitioner) because of their inability to communicate effectively with the doctor. Few did not undergo any treatment. The temporary nature of their stay in Odisha might be one of the reasons for not preferring government hospitals for treatment. Treatment is made available from the government hospitals free of cost only if they belong to BPL families. With no ration card, these migrant labourers are not eligible for free/subsidized treatment in government hospitals. Timings of the government hospitals are also not convenient to the daily labourers like the migrants. It is found that while migrant labourers avail themselves of curative care, though very often not at the desired level, they fall largely outside the coverage of preventive care due to the temporary nature of their employment and stay. It is found that the public health personnel seldom visit the settlements where the migrant labourers live. Just two per cent of the respondents reported that they were visited by the health worker in the month previous to the survey.

4. CONCLUSION

The present study aims at alerting the policy makers, planners and administrators in the state as well as the local level on provision of health care facility to the urban migrant of Odisha. In view of the rising in-migration, questions related to governance, public health, sanitation, water supply, housing, urban environment, educational and infrastructural needs law and order, etc., warrant greater attention at the level of policy planning and implementation. The large influx of migrants from different parts of the country with different linguistic and cultural backgrounds puts pressure on governance as well as civic amenities. Besides, in the absence of reliable information on the quantum of in-migration of a floating nature, these migrants are unlikely to be taken into account while making population projections and consequently in planning. For integrating the issues relating to migration into local governance, alternative population projections which include migrants of all types have to be made. The volume and diversity of the migrant population have to be taken into account in urban planning and steps should be taken for implementation of programmes and projects like MNREGA, Midday-meal programme and other developmental programme.

5. RECOMMENDATIONS

- Registration of migrant labourer is essential to regulate and monitor the outflow and inflow of migrant labour at both source and destination states. Special identity cards should be provided to migrant people by local panchayats.

- Strict regulation and monitoring of middleman engaged in labour trading should be done by the enforcement agency.
- The left-out family members of migrants need to be covered under all food rights entitlements and social security programme on priority and protected from hunger and starvation.
- The disaster prone area should have contingent plans for effective rehabilitation and resettlement measures to prevent people from migration and getting trafficked.
- Training programme on Employment, Entrepreneurial skill development skill and Capacity building process to be undertaken for the migrant youths.
- Special programme should be envisaged to provide care and support to the migrant affected and infected by HIV and AIDs.

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Urbanisation and Poverty in India

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I. INTRODUCTION

The annual exponential growth rate of urban population during 2001-2011 has been registered at 2.76% as against 2.73% recorded in the preceding decade. This estimation is higher than the projected figure of 2.24% estimated by Registrar General of India. There has been phenomenal increase in the number of cities and towns to 7935 in 2011 as against 5161 in 2001. Urban population in India has increased to 377 million in 2011 and projected at 600 million by 2031. The number of metropolitan cities has increased to 50 in 2011 and projected at 87 by 2031. The percentage of urban population in India has increased to 31 as against 27.6% in 2001. The percentage of India's urban population has been the lowest compared to Indonesia (45%), China (48%), Mexico (78%), Korea (83%) and Brazil (87%). The RGI projected rate of India's urban population growth will be 3.23% in 2021 and 5.73% in 2026. As estimated by World Urbanisation Prospects, the percentage of India's urban population will be 38 by 2026.

Rural urban migration has accentuated the magnitude of urban agglomeration in India. The exponential growth of urban population and incommensurate generation of employment opportunities as evident from dismal employment elasticity can be attributed to higher incidence of urban poverty. As per NSS Monthly Per Capita Consumer Expenditure (MPCE) data, a sum of Rs.56.64 in urban area was considered to be the yardstick for estimation of urban poverty in 1973-74. This figure has been updated to Rs.538.6 as per 61st Round of NSS, MPCE in 2004-05. The diminution in urban poverty ratio from 49.2% in 1973-74 to 25.7% in 2004-05 as per Planning commission official estimates has been contradicted by Tendulkar Committee Report on the basis of methodological fallacy and lack of comparison of previous estimation and recent estimation as the proportion of urban persons below 1870 calories which was 31.8% in 1993-94 increased to 34.7% in 2004-05. The methodological error makes the figure non-comparable. The Current food inflation coupled with unabated unemployment owing to impact of global recession on India the urban poverty ratio has been hiked instead of being plummeted.

The present paper exerts an ingenious endeavour at exploring the polemic issues in respect of methodological fallacy of estimation of urban poverty ratio, trends of urban poverty at all India and states' level in the post reform era, poverty ratio among deprived

social groups, determinants of urban poverty and policy paradigms for amelioration of urban poverty.

The entire study is based on secondary data, elicited from Census 2011, India Urban Poverty Report 2009, India Development Report 2011, Mid-Term Appraisal, Eleventh Five Year Plan (2007-12), Economic Survey Govt. of India, 2010-2011, Economic and Political Weekly and Yojana.

The entire paper has been schematized into six sections. Section I deals with introduction, objectives, data source and plan of the study. Section II delineates methodological fallacy of estimation of urban poverty ratio. Section III enumerates trends of urban poverty at all India and states' level in the post reform era. Section IV encompasses poverty ratio among deprived social groups. Section V incorporates determinants of urban poverty and Section VI enumerates policy paradigms for amelioration of urban poverty.

II. ESTIMATION OF URBAN POVERTY : METHODOLOGICAL FALLACY

The official estimates of poverty are based on the calorie norms of 2400 calories per capita per day for rural areas and 2100 calories per capita per day for urban areas. The poverty line for the base year 1973-74 has been taken as the per capita expenditure level at which these calorie norms have been fulfilled, on an average for the country as a whole, as per the NSS household consumption expenditure survey for the corresponding year. Inverse linear interpolation method was applied to the data on average per capita monthly expenditure and the associated calorie content of food items in the class separately for rural and urban areas. Based on the observed consumer behaviour in 1973-74 it was estimated that on an average, consumer expenditure of Rs.49.09 Per Capita per month was associated with a calorie intake of 2400 per capita per day in rural areas and Rs.56.64 per capita per month with a calorie intake of 2100 per day in urban areas. The concept of poverty line was partly normative and partly behavioural. This way of deriving the poverty line, being anchored in a norm of calorie requirement does not measure the nutritional status and the incidence of malnourishment or undernourishment in the population. It emphasises on the purchasing power required to fulfil the specific calorie intake standard with some margin for non-food consumption needs.

The urban all India shortfall of energy intake from the lower norm of 2100 calories, at the official poverty line is 305 calories by 2004-05

Tendulkar Committee Report : The report pointed out that the methodological error emerges from counting the poor below a continuously declining nutritional standard, arising from the increasing underestimation of the rural and urban poverty line overtime. The estimated urban share of the poor population, denoted as head count ratio or poverty ratio in 2004-05, 25.7% at the all India level is generally accepted as being less controversial than, its rural counterpart of 28.3% that has been heavily criticized as being

too low. In the interest of continuity as well as in view of consistency with broad external validity checks with respect to nutritional, educational and health outcome, it was decided to recommend MRP equivalent of urban PLB corresponding to 25.7% urban head count ratio. The committee keeps the incorrect method of poverty estimation stating that the existing 2004-05 urban poverty line of Rs.538.6 and the poverty percentage of 25.7 are correct. It retains the old fixed urban basket of 1973-74 costing Rs.56 which provided 2100 calories at that time and it retains the past price index adjustment to this cost to reach the grossly underestimated level of Rs.538.6 per month urban poverty line at which less than 1800 calories could be accessed by 2004-05. The only modification is to take the MRP basis of this poverty line which is Rs.40 per month higher at Rs.578, on account of higher recorded spending on non-food items. The food spending and calorie intake is the same under MRP as under URP. Thus the criticisms relate to increasing underestimation of actual poverty and the lack of comparability overtime, remain fully applicable. Two of the three broad external validity checks on nutrition relate to Body, Mass Index (BMI), a ratio which is of very dubious value for poor population as widely admitted, prolonged undernutrition leads to both stunting and low weight, so the BMI can remain at a cosmetically good level above 18.5, at significantly lowered value of both height and weight. The committee justifies its explicit acceptance of the lowered consumption, standard at the urban poverty line from the original 2100 norm to 1776 calories by 2004-05, asserting that the United Nations Food and Agriculture Organisation too has lowered norms. The report takes the consumption basket at the urban poverty line and values it at new prices to arrive at a new rural poverty line of Rs.446.7 on MRP basis, which corresponds to about Rs.414 URP and thus Rs.55 more than the earlier official poverty line of Rs.358.6. About 42% of rural population falls below this new poverty line. There is no economic rationale behind the urban consumption basket relating to 1973-74 whose cost has been price updated, to rural India in 2004-05. The new poverty estimates of the report remain non-comparable since the poor continue to be wrongly counted below a changing standard. In fact the proportion of rural persons below 2100 calories, estimated at 50.5% in 1993-94 increased by 10% to reach 60.5% by 2004-05. Similarly the report claims that urban poverty at its new poverty line declined from 31.8% to 25.7% comparing 1993-94 and 2004-05. New urban poverty line accessible to daily calorie, intake also declined from 1870 to 1795 calories making its figures non-comparable. The proportion of urban persons below 1870 calories which was 31.8 in 1993-94 increased to 37% by 2004-05.

III. TRENDS OF URBAN POVERTY

The below table represents all – Indian Urban distribution of persons living in households, the average expenditure and average calorie intake by expenditure classes as evident from NSS reports 508 and 513 relating to 61st round, 2004-05.

Table No. 1

**Distribution of persons by MPCE, Groups, Average Expenditure and
Average Calorie Intake per diem (2004-05, All – India Urban)**

MPCE Class	% of Persons URP 2004-05	Cumulative % of Persons URP 2004-05	Average MPCE (Rs.) URP 2004-05	Average Calorie intake URP 2004-05	Cumulative % of Persons Current Values		
					MRP (04-05)	MRP (05-06)	MRP (06-07)
1	2	3	4	5	6	7	8
<335	5.0	5.0	279.7	1413	3.5	3.0	1.5
335-395	5.1	10.1	368.1	1608	7.4	6.3	3.9
395-485	9.8	19.9	441.3	1687	15.9	13.3	9.5
485-580	10.3	30.2	533.2	1833	25.8	21.8	17.4
580-675	9.7	39.9	625.8	1856	35.7	30.6	25.8
675-790	9.9	49.8	730.2	1943	45.8	41.6	35.0
790-930	10.3	60.1	858.0	2024	56.1	52.3	46.1
930-1100	9.7	69.8	1014.3	2110	65.9	62.7	57.2
1100-1380	10.2	80.0	1226.4	2209	77.4	75.7	70.3
1380-1880	9.9	89.9	1594.4	2341	87.8	86.5	82.9
1880-2540	5.1	95.0	2157.2	2545	93.9	93.5	91.4
2540 & above	4.9	99.9	4235.6	2839	100	100	100
All	100.0		1052.4	2020			

Source : NSS 61st Round 2004-05,* Report No. 513

URP - Uniform Recall Period

MRP - Mixed Recall Period

The eighth MPCE Class (Rs.930 – Rs.1100) whose mean expenditure level is Rs.1014.3 exhibits an average calorie intake of 2110, very close to 2100 norm. The poverty line would lie just below Rs.1014 – 69.8% of the urban population spend less than Rs.1100 per month per person. Since the upper half of Rs.930-Rs.1100 class contained 9.7% of persons, obtained calorie intake above 2110 calories, this has to be deducted from 69.8 for obtaining the poverty ratio at 64.9%, on interpolation we get Rs.1000 per month

required for obtaining 2100 calories daily and 64.5% persons in urban poverty spending less than this. The official planning commission figure of urban poverty from the same data is only 25.7% because it corresponds to its poverty line of Rs.538.6. Since this poverty line is very close to the average expenditure of the fourth class, it is evident that only about 1833 calories can be accessed at this line, below the official nutrition norm of 2100 calories.

The below table reflects the percentage of urban poor to urban population at all-India level for the period 1973-74 to 2004-05.

Table No. 2

**Percentage of Urban Poor to Urban Population at all-India level
(1973-74 to 2004-05)**

Sl. No.	Round No. Items	28 th (1973-74)	38 th (1983)	50 th (1993-94)	61 st (2004-05)
1	2	3	4	5	6
1	MPCE giving 2100 Kcal., Rs. DPL 2100	65	147	398	1000
2	% of Persons below direct PL	60	58.5	57.0	64.5
3	Official Poverty line OPL (Rs)	56.6	117.6	285	538.6
4	% of persons below Official PL	49.2	42.2	32.6	25.7
5	Calorie intake at official PL	2000	1905	1885	1795
6	Deviation from RDA of 2100Kcal.	-100	-195	-215	-305
7	Ratio of DPL to OPL	1.13	1.25	1.40	1.86

Source: Planning Commission

State wise percentage of urban population living below poverty line (Head Count Ratio) has been presented in the below table.

Table No. 3

Percentage of Urban population living below the poverty line (Head Count Ratio)

States	1973-74	1977-78	1983-84	1987-88	1993-94	2004-05
1	2	3	4	5	6	7
AP	50.61	43.55	36.30	40.11	38.33	28.00
Assam	36.92	32.71	27.73	9.94	7.73	3.30

Bihar	52.96	48.76	47.33	48.73	34.50	28.68
Delhi	52.23	33.51	27.89	13.56	16.03	15.20
Goa	37.69	36.31	27.00	35.48	27.03	21.30
Gujarat	52.57	40.02	39.14	37.26	27.89	13.00
Haryana	40.18	36.57	24.15	17.99	16.38	15.10
HP	13.17	19.44	9.43	6.29	9.18	3.40
J & K	21.32	23.71	17.76	17.47	9.18	7.90
Karnataka	52.53	50.36	42.82	48.42	40.14	32.60
Kerala	62.74	55.62	45.68	40.33	24.55	20.20
MP	57.65	58.66	53.06	47.09	48.38	41.91
Maharashtra	43.87	40.09	40.26	39.78	35.15	32.20
Odisha	55.62	50.92	49.15	41.63	41.64	44.30
Punjab	27.96	27.32	23.79	14.67	11.35	7.10
Rajasthan	52.13	43.53	37.94	41.92	30.49	32.90
TN	49.40	48.69	46.96	38.64	39.77	22.20
UP	60.09	56.23	49.82	42.96	35.39	30.95
WB	34.67	38.20	32.32	35.08	22.41	14.80
All India	49.01	45.22	40.79	38.20	32.36	25.70

Source : Planning Commission (1997 and 2007)

Rate of Urban poverty reduction has been exhibited in the below table.

Table No. 4
Rate of Urban poverty reduction (%)

States	1973-74 / 83-84	1977-78 / 87-88	1983-84 / 93-94	1993-94 / 2004-05
1	2	3	4	5
AP	1.43	0.34	-0.20	0.94
Assam	1.52	2.28	1.40	0.40
Bihar	0.56	0.00	1.28	0.53
Delhi	2.43	2.00	1.19	.008
Goa	1.07	0.08	0.00	0.52

Gujarat	1.34	0.28	1.13	1.35
Haryana	1.60	1.86	0.78	0.12
HP	0.37	1.32	0.03	0.53
J & K	0.36	0.62	0.86	0.12
Karnataka	0.97	0.19	0.27	0.69
Kerala	1.71	1.53	2.11	0.40
MP	0.46	1.16	0.47	0.59
Maharashtra	0.36	0.03	0.51	0.27
Odisha	0.65	0.93	0.75	-0.22
Punjab	0.42	1.27	1.2	0.39
Rajasthan	1.42	0.16	0.75	-0.22
TN	0.24	1.01	0.72	1.60
UP	1.03	1.33	1.44	0.40
WB	0.24	0.31	0.99	0.69
All India	0.82	0.70	0.84	0.61

Note : The rate of poverty reduction is calculated by dividing the percentage change in the proportion of people under the poverty line in two end years by the number of years over which the decline has occurred.

Ranking of states on the basis of urban poverty and per capita SDP has been reflected in the below table.

Table No. 5
Ranking of states by urban poverty and per capita SDP

States	2004-05		1993-94	
	Rank in Poverty (Ascending order)	Rank in PC SDP (Descending order)	Rank in Poverty	Rank in PC SDP
Punjab	1	5	1	3
Gujarat	2	3	7	6
WB	3	10	4	11
Haryana	4	6	3	5
Delhi	5	1	2	1

Kerala	6	8	5	8
Goa	7	2	6	2
TN	8	7	13	7
AP	9	11	12	10
Bihar	10	16	9	16
UP	11	15	11	14
Maharastra	12	4	10	4
Karnataka	13	9	14	9
Rajasthan	14	12	8	13
MP	15	13	16	12
Odisha	16	14	15	15

Source : India Urban Poverty Report, 2009

Table No. 6
Urbanisation and Poverty

Urbanisation Poverty	VL (Very Low)	L (Low)	H (High)	VH (Very High)
VL	—	—	Punjab	—
L	—	Kerala	Gujrat, Haryana, WB	Delhi, Goa, TN
H	Bihar	AP , Rajasthan, UP	Karnataka	Maharastra
VH	Odisha	MP	—	—

Source:India Urban Poverty Report, 2009

Table No.7
Percentage of Poor in different size classes of cities / Towns

City / Town Size	1993-94	1999-2000
Large Towns / Cities	18.4	14.2
Medium Towns / Cities	27.6	20.4
Small Towns	33.2	24.2
All Urban Areas	27.4	19.9

Source:India Urban Poverty Report, 2009

Comparative poverty estimates among the general and SC and ST population for the period 1993-94 and 2004-05 have been exhibited in Table-8.

Table No. 8

**Comparative poverty among the General and SC and ST population,
1993-94 and 2004-05, All India**

Calories Intake	< 2200 1993-94	< 2200 2004-05	< 1800 1993-94	< 1800 2004-05
Rural % of persons with intake below specified level				
ST	73.5	82.5	30.0	44.0
SC	70.5	79.0	27.0	33.0
General	58.5	69.5	20.0	25.0
Urban % of persons with intake below specified level				
ST	67.5	81.0	33.0	61.5
SC	75.0	87.5	39.5	66.5
General	57.0	64.5	23.5	26.2

Source : NSS 50th Round and 61st Round

The above table reveals that seven – tenths of the general population in rural India could not access 2200 calories per day by 2004-05, the incidence was 79% for the SC and 82.5% for ST population. While about two-thirds of the General population could not access even 2100 calories per day in urban India, the incidence was 87.5% for the SC and 81% for the ST population.

IV. DETERMINANTS OF URBAN POVERTY

The UN Habitat Report (2003) stated that the cities have become a dumping ground for surplus population working in unskilled, unprotected and low-wage informal service industries and trade growth of urbanisation is caused by the push of the rural poor to the cities, who carry their poverty to the urban areas and create all sorts of miseries in urban surroundings is a widely prevalent impression among the well established city inhabitants and often finds strong political expression because it is easy to blame the inadequacies of city governance upon the immigrants, whose support base is weak. The available evidence does not support this contention. In India the share of manufacturing sector in employment

has hardly changed and the share of tertiary sector is much lower than other developing countries. The growth of manufacturing sector in India has not been strong enough to provide the necessary pull for rural workers. A related question arises, is urban poverty a spillover of rural poverty ?

Is Urban poverty a spillover of Rural poverty ?

As stated by Dandekar and Rath (1971), the urban poor are only an overflow of rural poor into the urban area. During 1960-61 to 1967-68 per capita private consumption expenditure moved up hardly at a rate of half percent per annum, the per capita expenditure of the bottom 20% of the urban poor declined substantially and moved close to their counterparts in the rural areas. The character of rural poverty has remained the same as before, but the character of urban poverty, has deepened further. This is the consequence of continuous migration of the rural poor into urban area in search of livelihood and their failure to find adequate livelihood, resulted in mushroom growth of roadside slums in cities. On the basis of empirical observation Dandekar and Rath had drawn the inference that conditions of the bottom 20% of the urban poor was no different from the bottom 20% of the rural poor and the poor in the cities lived in slums. In search of employment the rural poor might be flocking to the cities. There was hardly any direct evidence about migration and migrants. The deterioration in the conditions of the bottom 20% of the urban poor in relation to the same category to rural poor appears to be traumatic.

Kundu and Sarangi (2007) observed that economic deprivation is less of a factor in the migration of men both in rural and urban areas as migration of women is determined largely by socio-cultural factors. This proposition has further been validated for the urban areas by tabulating unit level data across five quintiles for the population as mentioned in the below table.

Table No. 9

Distribution of Urban Migrants across quintiles of consumption expenditure in 1999-2000

Quintile Group	Immigrants	Seasonal Migrants
Lowest	14.2	13.9
2 nd	17.5	15.1
3 rd	19.2	29.0
4 th	22.9	19.1
Highest	26.1	22.8
Total	100.0	100.0

Source: Kundu and Sarangi (2007)

The highest quintile accounts for 26.1% of the immigrants. Poverty is not a key factor even among seasonal migrants who migrate for 60 days during the last six months. Kundu and Sarangi also observed that the poorest household are those that have one or a few of their members reporting immigration status. When all the members are immigrants, the households are observed to belong to economically higher strata. Households in which all the members are migrants are more affluent than the non-migrant households. The results of a logistic regression model tested by Kundu and Sarangi (2007) support the proposition that rural-urban mobility is a factor in poverty reduction. Rural migrants into urban areas have a lower probability of being poor than the local population, migration emerges as an instrument of improving economic well being.

Urban Poor and the Backwash effect of development

Urbanisation is associated with lower level of poverty and larger cities appear to have the effect of lowering the poverty level further down. Certain aspects of economic development and the changes associated strongly with the process of urbanization in India have created a backwash effect for the poorer sections of the urban community. Over the years the category of self employed among the urban workers has increased and the category of regular employees has decreased. Self employed constituted 39.68% of all urban workers in 1983 and increased to 45.4% of workers in 2004-05. Regular employees decreased from 42.7% to 39.5% over the same period. Even wage paid casual work opportunity declined. The processes which have contributed to the backwash effects for the poor can be grouped into two categories.

- (a) Restructuring and dismantling of larger industries in big cities.
- (b) City modernisation and cleaning up

Restructuring and dismantling of large factory industries in cities has contributed to the casualisation of work. City modernisation drives have further contributed to this situation. Dismantling of industries has pushed the regular employees of the organized sector into casual jobs or into the informal sector as self-employed workers. Rent gaps in growing cities have provided further motivation to the relocation of industries. Cities do not provide space for informal economic activities. These activities are carried out in public spaces or residential areas and have the stamp of illegality. The modernization drives come down heavily on such activities, over time the attitude of the vocal urban society, the government and the judiciary towards the plight of informal workers and towards slum dwellers has changed. Large scale retailing under franchising arrangements and shopping malls are replacing small retailers and pushing them into the informal sector.

V. POLICY PARADIGMS FOR ALLEVIATION OF URBAN POVERTY

The following measures have been undertaken by the Govt. of India for alleviation of urban poverty.

(a) **Swarna Jayanti Shahari Rozgar Yojana (SJSRY)** : It was launched by the Govt. of India in December '97 and revamped from April '09. The scheme provides gainful employment to the urban unemployed and underemployed through encouraging the setting up of self employment ventures or provision of wage employment. The revamped scheme has the following five components

- (i) Urban Self Employment Programme (USEP)
- (ii) Urban Women Self-help Programme (UWSP)
- (iii) Skill Training for Employment Promotion amongst Urban Poor (STEPUP)
- (iv) Urban Wage Employment Programme (UWEP)
- (v) Urban Community Development Network (UCDN)

The annual budgetary provision under SJSRY for 2010-11 is Rs.589.68 cr. of which Rs.427.91 cr. has been released by 31st December '10 and 6,80,325 beneficiaries have been benefited upto 31st December '10.

(b) **Jawahar Lal Nehru National Urban Renewal Mission (JNNURM)** : It was launched in December 2005. It aims at providing financial assistance to cities for infrastructure, housing development and capacity development. Its basic components are (a) Basic Services to the Urban Poor (BSUP) for 65 selected cities and (b) Integrated Housing and Slum Development Programme (IHSDP) for other cities and towns. It emphasises the implementation of the following three mandatory pro-poor key reforms to enhance the capacity of Urban Local Bodies (ULBs)

- (i) Internal earmarking within local body budgets for basic services to the urban poor.
- (ii) Earmarking at least 20-25% of developed land in all housing projects (both public and private agencies for the economically weaker section (EWS), Lower Income Group (LIG) category.
- (iii) Implementation of seven point charter for provision of seven basic entitlements / services

As the first national flagship programme for urbanisation, the JNNURM has significantly triggered the creation of many innovative ideas in states that will increase their ability to maintain the momentum of the urban transformation being initiated. More than 1.5 million houses have been sanctioned by February '2011 and 1456 projects with an outlay of more than Rs.37,771.30 cr. have been approved with a committed Central share of Rs.70,787.90 cr. (89.6% of seven year allocation for 2005-12). Additional central assistance of Rs.10,013.37 cr. has been released. While all states are covered under BSUP, all states and UTs except Goa and UT of Lakshadweep have been covered under IHSDP.

- (c) **Affordable Housing in Partnership (AHIP)** : The Govt. has launched this scheme with an outlay of Rs.500 cr. for construction of one million houses for the EWS / LIG / MIG with at least 25% for the EWS category. This scheme aims at partnership between various agencies / Govt. / ULBs / Developers for realising the goal of affordable housing for all.
- (d) **Rajiv Awas Yojana (RAY)** : Govt. has announced the vision of 'Slum-Free India' through this scheme. Subsequent to this announcement, extensive consultations have been held with various Ministries, experts, state governments., NGOs, financial and urban experts and private industry to frame the guidelines. These draft guidelines have been critically appraised by an expert committee. The preparatory phase of RAY, called the slum free city planning scheme has been implemented. Under this scheme an amount of Rs.60 cr. has been released to states for undertaking slum surveys, mapping of slums, developing slum information systems, undertaking community mobilization, preparation of slum free city, state plans etc. before seeking support under RAY. A budgetary allocation of Rs.1270 cr. has been made for the preparatory phase of RAY for 2010-2011.

The High powered Expert committee regrets the fact that the small and medium towns have languished for want of an economic base and emphasizes the need and potentiality of more than 20,000 villages with over 5000 people acquiring urban status. The thrust of the report is on harnessing the agglomeration of economic factor in the metro cities. It demands urgent attention to be assigned to their infrastructure deficits and the state of service delivery and envisages an extremely top heavy urban structure. Twelfth plan document embarks upon a distributed model of urbanization which would ensure that migration flows are not unbalanced towards any particular city or cities. The Central and State Govt. must recognize the urban status of newly developing towns / cities statutorily and design a scheme analogous to JNNURM to strengthen their infrastructure base and promote them as centres of inclusive growth.

Urban poor should be traced out on the basis of economic survey conducted by the Central and State Govt. based on NSSO monthly Per Capita Consumer Expenditure (MPCE) data.

Methodological fallacy at regular interval should be dispensed with rather uniform norm for detection of urban poor should be adhered to.

There should be scrupulous implementation of urban poverty alleviation programme launched by the Central Govt. subject to monitoring by the Prime Minister of India so that benefits will be percolated to the genuine poor.

Participation of Urban Local Bodies and NGOs in the process of implementation of poverty alleviation programmes is crucial to ensure the efficacy of those programmes.

Food inflation should be regulated to reduce the incidence of urban poverty.

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Trend and Pattern of Urbanization in India

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Urbanization is an index of transformation from traditional rural economies to modern industrial one. It is a long term process. At the moment, India is among the countries of low level of urbanization. The onset of modern and universal process of urbanization is relatively a recent phenomenon and is closely related with industrial revolution and associated economic development. Historical evidence suggests that urbanization process is inevitable and universal. Historically, cities and towns have been the driving force in economic and social development. A majority of the developing countries, on the other hand started experiencing urbanization only since the middle of 20th century. As per 2011 census, 377 million Indians live in nearly 7935 towns and cities spread across the country. Urban population is 31.2 % of its population, in sharp contrast to only 15% who lived in urban areas in 1947 when the country became Independent. During the last sixty years, the population of India has grown three times, but Urban India has grown by nearly six times. The pattern of urbanization in India is characterized by continuous concentration of population and activities in large cities. Urbanization process is not mainly "migration lead" but a product of demographic explosion due to natural increase. In numerical terms, India's urban population is second largest in the world after China, and is higher than the total urban population of all countries put together barring China, USA and Russia.

Volume and Trend of Urban Population in India

Urban Units or Towns are all places with a municipality, corporation, cantonment board or notified town area committee, etc. All other places which satisfy the following criteria known as Census Town (i) A minimum population of 5,000 (ii) At least 75 per cent of the male main workers engaged in non-agricultural pursuits and (iii) A density of population of at least 400 per sq. km. In India, decadal growth rate of urban population is stabilized at 31 % which implies annual urban growth rate of 3% approximately. For the first time since independence, the absolute increase in the urban population in India is more than the rural population in 2011.

Rural – Urban distribution of population is 68.84% & 31.16% and level of urbanization increased from 27.81% in 2001 Census to 31.16% in 2011 Census. The proportion of rural population declined from 72.19% to 68.84% in 2011. The volume and trend of urban population are shown in table-1. The percentage of urban population to total population of India is 10.8 % in 1901 which increased to 17.3 % in 1951 and to 31.2 % in 2011. The decadal growth rate of urban population was highest (46.1 %) in 1981 and it is 31.8 % during last two decades. despite significant fluctuations over the past few decades, urban growth has at best been modest in India.

Table: 1: Urban Population in India from 1901 to 2011

Year	Urban Population (Million)	Percentage of Urban to Total population	Decadal Growth Rate (Percent)
1901	29.9	10.8	-
1911	25.9	10.3	0.4
1921	28.1	11.2	18.3
1931	33.5	12.0	19.1
1941	44.2	13.9	32.0
1951	62.4	17.3	41.4
1961	78.9	18.0	26.4
1971	109.1	19.9	38.2
1981	159.5	23.3	46.1
1991	217.6	25.7	36.4
2001	286.1	27.5	31.5
2011	377.1	31.2	31.8

Source- Census, 2011 & Ministry of Urban affairs, Govt. of India

High population growth, lack of sufficient employment opportunities in rural area and rural-urban migration lead to rapid urbanization in India.

Towns and Cities in India

An inescapable and only visible trend is the rapid urbanization of India. Existing cities are growing rapidly and haphazardly in all directions, those that cannot (like Mumbai) grow vertically, and many villages now resemble towns. Current estimates of “urban” population are in excess of 300 million, and likely to reach 600 million by 2030. As a share of total population, urban dwellers will comprise more than 40% of total population as against less than 32% today. The number of towns has increased from 5161 in 2001 to 7935

in 2011 which shows 54.75 % increase in last 10 years. The number of census towns has increased significantly from 1362 in 2001 to 2532 in 2011 as given in table-2.

Table-2 : Towns in India in 2001 and 2011

Type of Town	2001	2011	Increase (%)
Towns	5161	7935	2774 (54.75)
Statutory towns	3799	4041	242 (6.37)
Census towns	1362	3894	2532 (185.90)

Source : Census, 2011

Three cities of India, namely Delhi, Mumbai and Kolkata have second, fourth and eighth rank in terms of urban population in the world as shown in table-3. Tokyo city of Japan has highest urban population of 36.67 million. Five south Asian countries have positions among top 10 cities of the world with Delhi, Mumbai, Kolkata from India, Dhaka from Bangladesh and Karachi from Pakistan. Table-3 provides top 15 cities of the world with their population.

Table-3 : Fifteen Large Cities of the World, 2010

City	Country	Rank	Urban Population(Million)
Tokyo	Japan	1	36.67
Delhi	India	2	22.16
Sao Paulo	Brazil	3	20.26
Mumbai	India	4	20.04
Mexico City	Mexico	5	19.46
New York	USA	6	19.43
Shanghai	China	7	16.58
Kolkata	India	8	15.55
Dhaka	Bangladesh	9	14.65
Karachi	Pakistan	10	13.12
Los Angeles	USA	11	13.07
Buenos aires	Argentina	12	12.76
Beijing	China	13	12.39
Rio de janeiro	Brazil	14	11.95
Manila	Philippines	15	11.63

Source : World urbanization prospects, United Nations, 2010

The number of towns in India is categorized into six types, from class-I to Class- VI as per population. 1563 towns come under Class – IV towns whereas 1388 cities are Class-III cities and 1041 are Class-V cities in India. Table-4 provides number of towns in different categories of cities in the country.

Table-4 : Category and number of Towns in 2001 and 2011

Category	Population range	No. of Towns in 2001	No. of Towns in 2011
Class-I	More than 1 Lakh	441	468
Class-II	50000 to 1 lakh	496	-
Class-III	20000 to 50000	1388	-
Class-IV	10000 to 20000	1563	-
Class-V	5000 to 10000	1041	-
Class-VI	Below 5000	232	-
Total		5161	7935

Source- Census, 2001 and 2011

There are three cities such as Delhi, Mumbai and Kolkata whose population has increased 10 million mark in population and they are called one crore plus cities in India. These 3 cities are among 10 top cities of the world. The number of million plus cities has also increased to 35 in 2001 to 53 in 2011. There are 5 cities such as Chennai, Bengaluru, Hyderabad, Ahmadabad and Pune whose population have crossed 5 million. The total population of million plus cities constitutes 42 % of total urban population of India.

Table-5 : Class – I cities and range of population

Sl. No	Population Range	No of Cities
1	More than 10 million	03
2	5-10 million	05
3	2-5 million	10
4	1-2 million	34
	Million plus cities	53
5	0.5 -1 million	42
6	1 lakh to 5 lakh	372
	Total Class- I cities	468

Source : Census, 2011

Urbanization in Different States in India

There exists large variation in state-wise urbanization in India. The pattern, however, has undergone significant changes over the past few decades. A large proportion of urban population is currently concentrated in the six most developed states, namely Maharashtra, Gujarat, Tamil Nadu, Karnataka, Punjab and West Bengal, accounting for about half of the country's urban population. This pattern is an inheritance from the colonial period and all these states report a percentage of urban population much higher than the national average. Goa is the most urbanized state with 62.17 % as urban population followed by Mizoram (51.51 %), Tamil Nadu (48.45 %) and Kerala (47.72 %) as given in table-5. The urban population in Karnataka, Punjab, Andhra Pradesh and West Bengal varies between 31 % to 38 %. The least urbanized states are Himachal Pradesh(10.04 %), Bihar(11.30 %), Assam(14.08%) and Odisha (16.68 %).

Table-6 : Top four and least four urbanized states in India

Top 4 Urbanized State	% of Urban Population	Least 4 Urbanized State	% of Urban Population
Goa	62.17	Himachal Pradesh	10.05
Mizoram	51.51	Bihar	11.30
Tamil Nadu	48.45	Assam	14.08
Kerala	47.72	Odisha	16.68

Source : Census, 2011

Urbanisation in Odisha

Prior to 1951, there were only 39 urban centers in Orissa, which has grown up to 138 in 2001 and 223 in 2011. In other words, the urban population of the state has increased from 3% in 1941 to 14.99% in 2001 and to 16.68 % in 2011 which indicate low level of urbanization .The total urban population in Odisha is 69.96 lakh with 32 rank in terms of population in the country. Among these urban centers, Government of Orissa, as per 2001 census, has recognized 103 as Urban Local Bodies. These urban local bodies have been further sub divided into three categories such as Municipal Corporation, Municipalities and Notified Area Council. Presently, there are 3 Municipal Corporations, 37 Municipalities and 63 Notified Area Councils in Orissa as per the Orissa Municipal Act 1950 and there is no Town Panchayat system in the state. Apart from that there are 31 non statutory census, towns in the state. There are 22 cities in this state in 2011. Khurda district has 48.11 % urban population due to capital city Bhubaneswar followed by Jharsuguda (39.89%), Sundargarh (35.50 %), Sambalpur (29.81%) and Cuttack (27.94 %). Boudh district has lowest percent (4.65 %) urban population (Table-7). Among all towns,

around 48.98 percent population is living within top ten towns which include two Municipal Corporations and eight Municipalities. It is observed that more than fifty percent of the state's urban populations are living within top fifteen cities sharing 56.50percent. Similarly 83.85 percent population is living within top fifty towns of Orissa.

Table-7 : Urban population in Odisha,2001 and 2011(In Lakh)

	Indicator	2001	2011
1	Urban population	55.17 Lakh	69.96 Lakh
2	% of Urban Population	14.99	16.68
3	Ranking in terms of urbanisation	31	32
4	No. of cities and towns	138	223

Source : Census, 2011 & 2001

CONCLUSION

Urbanization is an integral part of the process of economic growth. As in most countries, India's towns and cities make a major contribution to the country's economy. With less than 1/3 of India's people, its urban areas generate over 2/3 of the country's GDP and account for 90% of government revenues. Urbanization in India has expanded rapidly as increasing numbers of people migrate to towns and cities in search of economic opportunity. Slums now account for 1/4 of all urban housing. Some of the chief forces driving urbanization today are shifting of jobs from agriculture to industry and the concentration of economic opportunities in the urban areas. Urbanization is associated with higher incomes, improved health, higher literacy, improved quality of life and other benefits. Yet along with the benefits of urbanization come environmental and social ills. Since with urbanization the concentration of people is increasing in cities so is the demand for basic necessities like food, energy, drinking water and shelter. The result is in terms of poor quality housing, lack of water supply and sanitation facility and lack of proper waste disposal facility leading to spread of communicable diseases. Meeting the needs of India's soaring urban populations is and will continue to be a strategic policy matter. The number of cities with over 10 lakh people will increase from 48 to 68 in the next two decades. The number of cities with population of 40 lakh and above will increase from 7 to 13 by 2030. The subsequent growth explosion of these cities will account for almost 70 per cent of India's GDP. The government must strengthen food security to support this dynamic growth through inclusive development process across the country. It needs to play the role of an enabler to address loopholes in different systems, institutions at various levels of governance, thereby strengthening the public delivery mechanism. The fast pace

of India's growth has increased stress level on physical infrastructure like roads, ports, electricity, airports, irrigation facilities, sanitation and railways with all these sectors reeling under substantial capacity deficit.

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Migration and Urbanisation :

A Case Study of Cuttack Slum Dwellers

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I. INTRODUCTION

Urbanisation is a long term process by the help of which there is concentration of population in urban areas. It is a product of demographic explosion and poverty induced rural-urban migration. It is an index of transformation of traditional rural economies to modern industrial one. Urbanisation is usually accompanied by social and economic development. But rapid urbanisation strains the capacity of the area to provide basic amenities like infrastructure, electricity, drinking water, sewerage etc.

Migration has been, by and large, the major component of urbanisation. Everett Lee defines migration "broadly as a permanent or semi-permanent change of residence". Migration is a demographic phenomenon found everywhere which results in population redistribution. Migration from rural to urban areas and cities exists from very old days. It has importance in altering the size and structure of the population of urban areas as well as that of rural areas. The most important economic factors that motivate migration are the push factors alongwith pull factors and the general economic conditions. The lack of opportunities for development pushed people from the rural areas to urban areas in search of livelihood. Opportunities for better employment, higher wages, and amenities of modern life are the pull factors which attract the people to the urban areas. The quest for independence, the desire to break away from traditional constraints of social organization, conflicts among the family members, exclusion from the community may cause migration, especially of those in the younger generation. Improved communication facilities such as transportation, the modernizing impact of the radio, television and cinema, urban oriented education, rural-urban interactions etc. and the resultant change in social values and attitudes are also likely to promote rural-urban migration. There are some other important factors which affect migration such as geographical factors like distance, topographical features, weather & climatic factors including floods and droughts etc. Health is another major factor. People, especially the elderly are often forced to move to cities where there are doctors & hospitals that can cater to their health needs. Preston considers rural-urban migration as an indicator of regional and sectoral distortions in the pattern of development.

The capacity of cities to assimilate the migrants by providing employment, access to land and basic amenities are limited. The UNFPA (2007) regards concentration of poverty, growth of slums and social deprivation in cities are the major challenges of development in less developed countries.

It is considered that, however, poverty is one of the main causes of rural-urban migration resulting in urban agglomeration and growth of slums. The most visible form of urban poverty is the proliferation of slums and bustees, with scarce land and growing population. As a result of which house rent goes on increasing. So the poor prefer to settle near their work places, dilapidated houses with inadequate lighting, lack of potable water and absence of sanitation facilities, faulty alignment of street lights and so on.

Another cause is that there is an enormous and persistent demand for skilled and unskilled labourers for construction of houses, complexes, railway lines, roads, drains etc. Its demand is met by migrant labourers, who have been staying here permanently or semi-permanently. This results in increasing density of population, crimes, antisocial activities, social tensions along with deteriorated, neglected, substandard housing conditions.

Slum refers to a cluster of kutcha or semi-pucca houses with inadequate basic amenities. According to census of India (2001) slum refers to a compact area of at least 300 population or about 60-70 households of poorly built, unhygienic environment usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities.

In Odisha, Cuttack is regarded as the oldest city. Apart from being an outstanding cultural, religious and commercial citadel of the state, this has attained a wide reputation as an ancient city. At present among various cities of Odisha, Cuttack city is arguably the most seriously affected by the migration of rural poor. They have come from different parts of the country, but mostly from within the state and from neighboring states. The city is generally known as slum city and its culture is called "Bustee Culture"

The present study is motivated by a desire to make an in-depth study of the slum dwellers of Cuttack city due to migration and urbanisation. The paper is organised in the following way. Section-II presents the objectives of the study while the methodology is discussed in section-III, the section-IV deals with the trends of urbanisation in Odisha and the slum dwellers of Cuttack city. Finally section-V provides some recommendations.

II. OBJECTIVES

The specific objectives of the study are as follows:-

- (i) To study the trends of urbanisation in Odisha.
- (ii) To study the causes of migration.

- (iii) To highlight the demographic features of slum dwellers.
- (iv) To study the nature and period of migration.
- (v) To study whether the slum dwellers have link with the place of origin.
- (vi) To study the problem of slum dwellers.

III. METHODOLOGY

The study uses both primary and secondary data. The secondary data is collected from Municipality Office, Cuttack; Project Office, Cuttack and District Statistical Office, Cuttack. The Primary data is collected through a field survey. 100 households are taken as sample. The sample is drawn randomly from four different slums of Cuttack city such as:-Pottapola, Behera Sahi (Chhatra Bazar), Nadi Kula (Kali Vihar) and Khannagar. The data is collected through the questionnaire which is a structured one by the personal interview method. The questions are designed and asked accordingly during the course of field survey. The inputs obtained are analyzed and expressed in terms of percentage figure. The data is represented in the form of tables. The sample data obtained in the survey is on the basis of the objectives and relevant conclusion is drawn.

IV. TRENDS OF URBANISATION IN ODISHA AND THE SLUM DWELLERS OF CUTTACK CITY

Table - 1 : Trend of Urbanisation in Odisha

Census Year	Odisha Population (in millions)	Urban Population (in millions)	Urban Population as % of Total Population
1981	26.3	3.1	11.78
1991	31.5	4.2	13.38
2001	36.7	5.5	14.97
2011	41.9	6.9	16.46

Source : Census report

Table-1 shows the trend of urbanisation in Odisha. The table shows that there is a rising trend of total population as well as percentage of urban population.

A large part of migration and urbanisation have been linked to stagnation and volatility of agriculture. The growth rates in agricultural production and income has been noted to be low, unstable across regions over the past several decades, resulting in lack of livelihood opportunities in rural areas.

Table - 2 : Percentage distribution of migrants based on main reasons for migration.

Reasons For Migration	Percentage of Households (%)
Search of work	52
Business	13
Service	6
Large family	9
Landlessness	6
To join family members	5
Medical facility	2
Others	7
Total	100

Source : Primary Data

Out of the different reasons cited in table-2, the highest percentage of migration to Cuttack city is due to the search of work and the lowest percentage of migration to Cuttack city is due to medical facility.

From the survey it is found that most of the households are migrated from inside the state of Odisha such as Balangir, Berhampur, Dhenkanal, Jagatsinghpur, Kendrapara, Koraput, Keonjhar, Nayagarh, Phulbani, Paralakhemundi, Sambalpur etc. Some slum dwellers also have migrated from outside Odisha like Andhra Pradesh, Bihar, Chhatisgarh, Kolkata, Madhya Pradesh, Nagpur etc.

Rural-urban migration has often been considered the major factor for the growth of slums in urban areas. Slums are the universal phenomenon which has experienced urban explosion mainly due to the rushing stream of rural-urban migration.

Table - 3 : Slum population of Cuttack city.

Census Year	Total Population of Cuttack city (in lakhs)	Slum Population of Cuttack City (in lakhs)	% of Slum Population of Cuttack City to Total Population of Cuttack city
1991	4.03	1.34	33.25
2001	5.35	2.23	41.68
2011	6.06	—	—

Source : CMC Project office

As is evident from table-3, the slum population has increased from 33% to 42 % during the period from 1991 to 2001.

Table - 4 : Sample Slums, House hold & Population.

Sl. No.	Word No.	Name of The Slum	Household	Population
1	14	Pattapola Colony & Pattapola Tanti Sahi	775	3875
2	34	Behera Sahi, Chhatra Bazaar	145	704
3	40	Nadi Kula, Kali vihar	117	502
4	41	Khannagar Gouda Sahi & Behera Sahi	250	900

Source : CMC Project office, Census-2001

The above table is arranged on the basic of ward number. Out of the four slums surveyed, Pattapola has the highest number of households and the highest number of population. Similarly, the lowest number of households and the lowest number of population is in Nadi Kula, Kali Vihar.

Table - 5 : Nature of Migration

Name of Slum	Permanent	Temporary	Total
Pattapola	27 (90)	3 (10)	30 (100)
Behera Sahi, Chhatra Bazar	23 (92)	2 (8)	25 (100)
Nadi Kula, Kali Vihar	21(84)	4 (16)	25(100)
Khannagar Gauda Sahi & Behera Sahi	20 (100)	—	20 (100)
Total	91 (91.5)	9 (8.5)	100 (100)

Source : primary Data

Note : Figures in parentheses show percentage.

Table-5 shows that 91 percent of the total populations are permanent migrations to Cuttack city. Out of these, Khannagar Gouda Sahi and Berera Sahi slums have the highest percentage of permanent migrants and Nadi kula slum has the lowest percentage of permanent migrants. Very less number of slum dwellers are temporary migrants. During the off-seasons, they come to the cities in search of jobs and go back to their villages. Even some are found to be staying during the day in the city when they are engaged in work and return to village at night.

Table:-6- Migrant Respondent's stay at Cuttack.

Period of Stay (Year)	No. of Households				Total
	Pattapola	Canal Kula	Nadi kula	Khannagar	
0-5	2 (6.66)	3 (12)	6(24)	4 (20)	15(15)
5-10	3(10)	5(20)	8(32)	3(15)	19(19)
10-15	4(13.33)	3(12)	7(28)	20(10)	16(16)
15-20	6(20)	4(16)	4(16)	3(15)	17(17)
20-25	7(23.33)	3(12)	-	1(5)	11(11)
25-30	5(16.66)	2(8)	-	3(15)	10(10)
More than 30	3(10)	5(20)	-	4(20)	12(12)
Total	30(100)	25(100)	25(100)	20(100)	100(100)

Source : Primary data

Note : Figures in parentheses show percentage.

Out of the total migrants, about 12% of the respondents stayed for more than 30 years. 10% of the respondents stayed for 25-30 years. 15% of the respondents stayed for 5 years and 19% of the respondents stayed for 5-10 years. Out of the four slums surveyed, as the data shows the existence of Khannagar slum is upto 20 years.

Table - 7 : Link with the place of origin

Frequency	No. of Households				Total
	Pottapola	Canal kula	Nadi kula	Khannagar	
Once a year	9(30)	11(44)	14(56)	8(40)	42(42)
Twice a year	12(40)	7(28)	3(12)	9(45)	31(31)
Once in two years	3(10)	4(16)	4(16)	2(10)	13(13)
Once in three years	-	1(4)	-	-	1(1)
Uncertain	2(6.66)	-	-	1(5)	3(3)
Four times a year	1(3.33)	-	-	-	1(1)
Thrice a year	-	-	-	-	-
Seasonal migrants	3(10)	2(8)	4(16)	-	9(9)
Total	30(100)	25(100)	25(100)	20(100)	100(100)

Source : primary data

Note : Figures in parentheses show percentage.

As is evident from Table – 6, about 42% of the total households of the slums are in contact with the place of origin once a year. 31% of the households are in link with the place of origin twice a year. 3% of the households view was that they were uncertain of their link with the place of origin. 9% of the total households belong to the category of seasonal migrants.

Table - 8 Slum households without basic Amenities

Name of Slums	Without Latrine	Without Bathroom	Without the Supply of Drinking Water	Without Electricity	Without Kitchen	Without Windows
Pottapola	26(86.6)	28(93.3)	14(46.6)	16(53.3)	27(90)	24(80)
Behera Sahi, Chhatra Bazar	22(88)	24(96)	15(60)	18(72)	22(88)	23(92)
Nadi kula, Kalivihar	21(84)	23(92)	11(44)	12(48)	21(84)	22(88)
Khannagar, Gauda Sahi & Behera Sahi	11(55)	12(60)	8(40)	6(30)	16(80)	17(85)
Average	(78.4)	(85.3)	(47.6)	(50.8)	(85.5)	(86.2)

Source : primary data

Note : Figures in parentheses show percentage.

Out of the four slums surveyed, with regard to the basic amenities available Pattapola & Behera Sahi, Chhatra Bazar have miserable condition. Nearly 80% of the households do not have latrines. More than 85% of the households are without bathrooms and about 50% of the households are without electricity. About 48% of the households are without the supply of drinking water. Khannagar slums are a little improved with regard to the availability of basic amenities such as latrine, bathroom supplied drinking water, electricity.

FINDINGS

- While looking at the trends of urbanization in Odisha, it is observed that the percentage of urban population to total population goes on increasing.
- About 52% of the household migrated to Cuttack city in search of work and only 2% of households migrated for medical facility.

- The percentage of slum population of Cuttack city to total population increased from 33.25% in 1991 to 41.68% in 2001.
- All the slum dwellers in Khannagar Gouda Sahi & Behera Sahi are permanent migrants and 16% of the slum dwellers of Nadi Kula, Kali vihar are temporary migrants.
- It is observed that some slum dwellers have stayed for more than 30 years in Cuttack city and some other stayed for less than 5 years.
- The migrants keep strong link in their homes in the villages through remittances, food supplies, childcare, work at harvest time etc.
- The key findings of the survey is that the basic community services in the slums of Cuttack city are not sufficient. Scarcity of drinking water is a great problem of slum dwellers. About 48% of the households are without drinking water. 80% of the households are without kitchen and 51% of the households are without electricity.

RECOMMENDATIONS

The study recommends the following for better improvement in the conditions of the migrants slum dwellers :-

- Since the Percentage of urban population to total population goes on increasing, it is necessary to control rural – urban migration. Rural urban migration can be controlled through agricultural development, redistribution of land to peasants and increasing employment opportunities in rural areas.
- Since the households migrate to urban areas in search of work, effective & efficient policy measures must be adopted to establish agro-processing units, village cottage & handi-craft units in the rural & semi-urban areas so that the rural people can get employment in these industries and are not compelled to migrate in search of job to big cities.
- Basic services such as sanitary houses, drinking water, electricity, drainage & sewerage system should be provided and improved in slum areas by private and public participations.
- Civic awareness should be created among the slum dwellers about various Govt. projects and their usefulness.
- With socio-economic projects, the environmental up gradation programme should be implemented. Comprehensive drainage master plan is to be worked out. Permanent pumping system may be taken as one of the measures to avoid water logging in the slums.

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