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Publication of *Artha Beekshan*, the quarterly referred journal of Bangiya Arthaniti Parishad, that is, the Bengal Economic Association, is one of the most important academic activities of the Association. The present volume, **Volume 28, No. 1** of the Journal, is published containing the selected papers contributed by scholars. We are thankful to the authors and members who have helped in one way or other in the preparation of this volume.

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I would like to extend my whole-hearted thanks to the Editorial team, the Publisher, and all who have helped in the publication process, and especially the office bearers of Bangiya Arthaniti Parishad for their kind endeavours to make this issue of **Artha Beekshan** viable and **Kolkata Mudran** for bringing out the present issue.

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MACROECONOMICS AND THE GLOBAL FINANCIAL CRISIS*

SOUMYEN SIKDAR#

Abstract

As an intellectual discipline modern macroeconomics has a fascinating history, displaying clearly discernible right and left swerves that can be generally put in correspondence with the swings in political ideology. After tracing the history in a broad sweep the lecture will concentrate on developments in theory and practice since 2000. Within this period the year 2008 marked the beginning of the Great Recession or the Global financial Crisis, which is without question the greatest economic disaster since the Great Depression. The trauma of the Great Depression gave birth to modern macroeconomics. The Great Recession-its origin and associated policy failures- exposed fundamental weaknesses and inadequacies of the prevailing macro paradigm, the Neoclassical Synthesis. The time apparently is ripe for another revolution in macroeconomics. We shall look at the novel policy measures that were taken to tackle the financial collapse and its contagion and some of the subsequent attempts at redesigning the analytical apparatus to make it more suitable for the post-crisis world. Unlike The General Theory no magnum opus has emerged yet, but numerous exciting avenues are being explored. The lecture will try to give an overview of the major developments in nontechnical terms.

Key words : Financial Crisis, NAIRU, Expectations , Monetary Policy

JEL Classification Codes:E 12, E32,E63,G17.

I.Introduction

In terms of job destruction, loss of output and wealth, shrunken investment and loss in people's confidence in the free market system, the Global Financial Crisis(GFC) or the Great Recession (GR) that started in the USA in 2007 is second only to the Great Depression. It has naturally caused a great deal of rethinking by economists and policy makers on a great variety of fundamental issues ranging from globalization, deregulation and financial management by central banks. Out of the Great Depression came the General Theory of Keynes; but nothing even remotely comparable has come out of GFC yet. Serious inadequacies of the existing macroeconomic framework-the neo-classical synthesis, as it is called - have

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#Professor ,Economics Group, Indian Institute of Management, Calcutta.

been exposed. And for the second time after the Asian Crisis of the late 1990s, the predictive power of economics has been seriously called into question.

In this lecture, we shall concentrate on some recent developments in theoretical macroeconomics, some of which predate the crisis. The year 2000 will be taken as the reference year. In the year 1900, in the International Congress of Mathematicians in Paris the great German mathematician Hilbert set out a list of twenty three problems with the hope that attempts to solve these problems will aid the development of mathematics.

In the same spirit Oskar Morgenstern in 1972 published in the *Journal of Economic literature* an essay titled, *Thirteen Critical Points in Contemporary Economic Theory*. Then in 2000, both the *Journal of Economic Perspectives* and the *Quarterly Journal of Economics* brought out special issues to take stock of progress in macroeconomic theory and practice. This essay draws substantially on Robert Solow's article in the former and that of Olivier Blanchard in the latter.

The evolution and current status of some key concepts of modern mainstream discourse are described below.

III. The Natural Rate Hypothesis and the Output Gap

The New Classical era of modern macroeconomics can be traced back to Milton Friedman's 1967 Presidential Address to the American Economic Association, published next year as *The Role of Monetary Policy*. The Natural Rate Hypothesis, introduced in this lecture, conquered the field within a very short time. The key idea is that unregulated capitalism is an inherently stable system with a strong tendency to converge to the full employment equilibrium where employment is consistent with stable, non-accelerating inflation. The associated unemployment rate came to be called NAIRU, non-accelerating inflation rate of unemployment. Given its central role, naturally policymakers started asking for good estimates of NAIRU. This proved surprisingly difficult. Different definitions of 'equilibrium unemployment' produced different estimates. The generally accepted estimate was 6% for the American economy. But this ran foul of some robust empirical evidence. According to the NRH, inflation is supposed to shoot up if unemployment falls below NAIRU and decelerate if it is on the other side. Graphically, the Phillips Curve intersects the unemployment axis at 6%. But throughout the 1990s, unemployment was persistently below 6% with absolutely no sign of acceleration in inflation which maintained a low and stable value. Similarly, periods of high unemployment failed to display accelerating deflation. Closely related to NAIRU is the notion of the Output Gap (OG), the shortfall of actual GDP from 'potential GDP'. OG plays a crucial role in modern policy analysis based on the Taylor Rule which makes the policy interest rate of the central bank a function of inflation (relative to its target value) and OG. But, as in the case of NAIRU, accurate measurement of the OG has also proved extremely

elusive. To date, there is no consensus on how to estimate 'potential output'. Many authors simply equate it with the (Hodrik-Prescott filtered) trend output. However, if GDP is demand-constrained over short periods, it is hard to see how the fitted trend can accurately capture the potential output, which is a supply side variable.

Some economists introduced the notion of Time-varying NAIRU or TV-NAIRU to account for some of the empirical anomalies. In policy circles one frequently meets statements like, 'Output Gap was more positive (or more negative) than we thought.' But, this approach-reverse engineering from data to theory- is contrary to the spirit of science. Inferences about the behaviour of OG or NAIRU made by taking inflation and demand data at face value often failed to be supported by independent estimates. So in effect, one puzzle was 'solved' at the cost of creating another. One comes across articles in reputed journals with telling titles like, 'UK inflation in the 70s and 80s-the role of output gap mismeasurement' or 'Unreliability of output gap estimates in real time.'

In this context it is instructive to take a look at the very interesting survey reported by Alston, Kearl and Vaughan: Is there a consensus among economists in the 1990s? (AEA Papers and proceedings, May 1992).

On forty macroeconomic propositions opinion was solicited from 1350 American economists consisting of 200 in 10 leading graduate programmes, 200 in other members of the AEA, 150 government economists, 150 business economists, 500 teaching Principles of Economics and 150 evolutionary economists. Response was received from 464. The answers were grouped under: Generally Disagree (GD), Agree with provisos (AP) and Generally Agree (GA).

Some sample questions and answers are as follows-

Q 8: An economy in short run equilibrium at a real GNP below potential GNP has a self-correcting mechanism that will eventually return it to potential GNP.

In percentage terms, GD: 47.6, AP: 29.5 GA: 21.3 (The sum does not add to 100 due to rounding and not listing of 'no response'.)

Q 9: Fiscal policy has a significant stimulative impact on a less than fully employed economy.

Response: 9.1, 30.6, 59.3

Q 10: The distribution of income in the USA should be more equal.

Response: 26.7, 24.4, 48.5

Q 11: Wage contracts are the primary factor that prevents the economy from operating continuously at full employment.

Response: 72.4, 20.9, 5.2

Q 26: Redistribution of income within the USA is a legitimate role for the government.

Response: 16.8, 25.4, 56.5

Q 28: The major source of macroeconomic disturbance is supply side shocks.

Response: 54.7, 28.2, 12.1

Q 29: There is a NAIRU to which the economy tends in the long run.

Response: 30.8, 34.1, 34.3

Q 33: Changes in aggregate demand affect real GDP in the short run but not in the long run.

Response: 30.8, 34.1, 34.3

The hypothesis of no consensus was rejected for all 40 questions at 1 percent significance.

IV. Microfoundation vs Thumb Rule

Solow treats this conflict as a 'foundational question' and states; ' I think that the only reason to insist on optimizing behaviour is to get welfare conclusions that no one believes anyway, the most spectacularly implausible one being that the observed business cycle is really an optimal adjustment to unexpected shocks to technology.' We agree with him that perhaps it is possible to imagine a mixed solution involving limited optimization combined with some rule of thumb.

In this connection it is mentioned that the fixed-price disequilibrium models explored by Benassy and Malinvaud among others in the late 1070s and early 1980s were not given a fair trial, partly because of the absence of any theory of how prices will eventually move.

V. Modelling Expectations

The major new development is the demise of full information rational expectations (FIRE), a central pillar of the new classical edifice. Statistically the null of FIRE has been widely tested with survey data. It used to be said that 'Like utility expectations are not observed, and so surveys cannot be used to test RE'. But this view is increasingly being rejected. Econometric tests have demonstrated that survey based expectations are not in line with FIRE. Rational Expectations has the big advantage of definiteness and theoretical elegance, but the equally big limitation of being thought implausible by the very people whose mental processes it is meant to describe. Learning by rational agents, rather than full blast FIRE,

with convergence to FIRE is a promising line of research. But, according to Solow, 'Learning literature has not yet got to the point when it can be directly useful to macroeconomics.'

VI. Behavioural Macroeconomics and Finance

A major development away from the realm of rational agents, has been the emergence of behavioural macroeconomics, especially in the theory of finance. George Akerlof's Nobel lecture in 2002 is a landmark in this regard. Psychologists have established beyond reasonable doubt the tendency of human beings to deviate systematically from rationality, particularly when dealing with situations fraught with uncertainty. Some sequences of realization are treated as more 'salient' and have more impact on expectations than they should. Mainstream analysis has failed to produce satisfactory explanations for the Equity Premium Puzzle, the widespread mis-pricing of financial assets, the emergence and persistence of bubbles and so on. Today, behavioural finance, based on psychological insights, is well on its way to displace mainstream finance theory from its central position of dominance.

Labour Market Behaviour

The widely used New Keynesian Phillips Curve (NKPC) is microfounded in monopolistic competition in the product market plus other frictions like menu costs. But no corresponding consensus has emerged for the labour market. In the 1980s the flow approach based on search and matching successfully formalised Friedman's original definition of NAIRU- level of unemployment consistent with Walrasian equilibrium with product and labour market frictions embedded in the equations. But the integration of this approach with NKPC is still not satisfactory.

An interesting modelling device in this context has been the development of wage-setting and price-setting curves. Their point of intersection defines NAIRU. These curves are gradually finding their way into many introductory macroeconomics texts.

Nebulous Runs

The Neo-classical synthesis (so named by Paul Samuelson) is a compromise solution between the Keynesians and the New classicals. In this framework there are product and labour market frictions in the short run, causing prices to be sticky; while in the long run the classical full employment paradigm prevails and money is neutral. Operationally, the short run applies to quarter to quarter change with some ad hoc dynamism; and the long run covers decade to decade growth. So, there must be a medium run on a 5-10 year scale in which some hybrid transitional model is appropriate. Robert Lucas maintains that any attempt to be a Keynesian in the short run and neo-classical in the long run cannot be logical. Solow says, ' How does someone who is being Keynesian from quarter to quarter ever stop? How does someone

who is being neo-classical ever find room for a fixed-price interlude when markets don't clear?' Unfortunately, this issue is not any closer to resolution today than it was in 2000.

Conduct of Monetary Policy

The origin of the GFC was squarely in the financial sector. And the actions taken by governments across the globe, both during the crisis and in the post crisis recovery phase, importantly involved monetary policy. Because the nominal interest rate had already hit the zero lower bound, monetary action involved several novel components such as establishing special lending facilities for banks, quantitative easing (and the consequent swelling of central bank balance sheets through the purchase of assets including residential mortgages) and forward guidance. But the text book models of monetary policy-in terms of shifting LM or MP curves-are incapable of depicting or explaining these unconventional measures. According to the textbooks, once the central bank's policy rate reached the zero lower bound, monetary policy simply had no further role to play. To quote Benjamin Friedman, 'The gap between the models and the world of monetary policymaking is now wider than at any time since the 1930s.'

One fundamental limitation of the standard IS-LM or IS-MP analysis is the absence of the credit mechanism or financial intermediation in general. In recent years many economists have sought to remove (or at least address) this limitation by a more explicit treatment of the credit allocation channels. They emphasise that what matters for the level of macroeconomic activity is neither the supply of money nor the short term policy rate of the central bank, but rather the availability of credit and the terms at which credit is available. Under imperfection and asymmetry of information credit may be rationed by banks and if that is the case there may not be any simple link between change in the policy rate and the change in the lending behaviour of banks. This problem is exacerbated by the fact that in severe economic downturns , the value of net worth of highly leveraged banks is severely reduced and in consequence risk averse banks may severely cut back lending, making recovery that much more difficult. Worse, changes in government and central bank policy may actually give rise to new risks which have their own adverse effects. Stiglitz and Greenwald, among others, have been successful in building analytical models where the role of the banks as active agents of creation and allocation of credit in situations fraught with uncertainty is explicitly introduced.

According to a group of economists, of which Benjamin Friedman is the leading exponent, the crucial lacuna of the framework for monetary policy currently used, for purposes of representing the actions of central banks during the GFC and their impact on the non-financial economy, is the absence of any distinction between the central bank's policy rate and the interest rate at which households and firms regularly borrow and lend. Introducing a new

equation to capture this divergence in the standard workhorse model, Friedman is able to explain the success of the unconventional monetary measures that the Fed and European central banks used during and after the crisis. These unconventional measures include massive Quantitative Easing, Operation Twist and Forward Guidance. This is indeed an important advance on the theoretical front. And the basic ideas and equations are simple enough to be included even in undergraduate textbooks.

Much remains to be done to make macroeconomic theory an adequate tool for understanding catastrophes like the GFC in capitalist economies and to turn it into an effective source of policy guidelines for averting such crises. But a significant beginning has been made, paving the way, hopefully, for a new synthesis, a new General Theory.

CAPITALISM AND THE COMMON MAN IN THE TWENTY-FIRST CENTURY*

AMBAR GHOSH#

Abstract

The coexistence of extreme economic inequality and political equality or the survival of capitalism despite political equality constitutes a grave puzzle. It is rational for the political parties to confiscate the wealth of the giant capitalists, tax away the surplus income the rich and distribute them among the masses. It seems natural for the political parties in a democracy to nationalize all the large firms and run them for the benefit of the masses. However, political parties never behave the way described above. They do just the opposite. Resolution of this puzzle is absolutely essential for gaining an understanding of how a capitalist society functions. Following the disintegration of Soviet Union, the capitalist powers won back almost all their colonies, which did not accept their domination and traversed independent or socialist paths, either through war or indirectly through economic means. They won back India as well. In this lecture, we shall explain how the giant capitalists conquered India again and what strategy India should follow to gain back her independence.

Keywords :Capitalism, Democracy, Exploitation, Neoclassical Economics

JEL Classification Codes :P16, P51, D72, F54.

I. Introduction

Professor S.N. Sen, an eminent social scientist, through his writings and also through the Bengal Economic Association, which he founded, strived to help people gain a deep and clear understanding of the society they live in. I pay my homage to him by sharing with you my views regarding how the capitalist world functions in the twenty-first century.

A capitalist society is characterized by a very high degree of inequality in the distribution of wealth and income (see, among others, Picketty (2014) and Stiglitz (2012)). A few giant capitalists in such a society own most of its wealth and have in their command the bulk of its income. Paradoxically, a capitalist society also has multi-party democracy, where every adult citizen has one vote. Democracy, therefore, grants political equality. The coexistence of extreme economic inequality and political equality or the survival of capitalism despite political equality constitutes a grave puzzle. To elaborate, given the political equality granted by

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#Professor of Economics, Jadavpur University, Kolkata-700032.

democracy, it is optimal for the political parties to work for the poor toiling masses who constitute more than ninety percent of the country's population. It is rational for the political parties to confiscate the wealth of the giant capitalists, tax away the surplus income the rich and distribute them among the masses.

It seems natural for the political parties in a democracy to nationalize all the large firms and run them for the benefit of the masses. However, political parties never behave the way described above. They do just the opposite. They take away the properties of the poor and give them away to the giant capitalists free of cost. Obviously, this is a puzzle. Explaining this puzzle is one of the most important objectives of this lecture. Resolution of this puzzle is absolutely essential for gaining an understanding of how a capitalist society functions.

Just like the people in a capitalist society, countries in the world are also divided into two categories: rich and the poor or independent and dependent. Explaining this divide is another important objective of this lecture. Capitalism has been imperialist right from its birth. By the beginning of World War I, giant capitalists of West Europe and USA conquered and colonized the whole world to expand their business empires as much as possible all across the world.

However, at that time, the giant capitalists were a divided lot. They were divided on the basis of their nationalities. Hence, to gain a larger share of the colonies, they fought two world wars with one another. These two world wars weakened them considerably. The First World War made the emperor Tsar of Russia so vulnerable that the Bolsheviks overthrew him and usurped state power. Eventually, the socialist state that was born in Russia grew into formidable Soviet Union and emerged as a super power after World War II. Inspired by the strength and success of Soviet Union and aided by it, workers' movements and socialist forces all across the capitalist world gained momentum. Thus, in the post-World war II period, socialism and Soviet Union emerged as the single most important threat to the giant capitalists. To neutralize this threat, the giant capitalists shed their differences and became united. Capitalist powers led by the US declared a tacit war with Soviet Union to check the spread of its influence and, eventually, to destroy it. This ushered in the era of Cold War, which caught both the Soviet Union and the capitalist powers in a fierce arms race with one another and both the powers fought and struggled with one another to spread their respective influences all across the world. The capitalist powers had to devote so much resources to fighting the Cold War and rebuilding their countries following the devastations wrought by World War II that they had no more resources left for containing the rising nationalist movements in the colonies and, thereby, retaining hold over them. Hence, they granted them independence. Many of these colonies including India found inspiration in the example set by Soviet Union and adopted the Soviet model of planned economic development and sought to establish socialism in their countries. However, eventually, Soviet Union lost the Cold War. It collapsed in 1991. Following the disintegration of Soviet Union, the capitalist powers

won back almost all their colonies, which did not accept their domination and traversed independent or socialist paths, either through war or indirectly through economic means. They won back India as well. We shall explain in this lecture how the giant capitalists conquered India again and what strategy India should follow to gain back her independence.

II. Coexistence of Capitalism and Democracy: A Puzzle

A capitalist country is defined as one where the major part of production is carried out with hired labour. Most of the countries in the world today including India are capitalist countries. A capitalist country is characterized by extreme economic inequality. Just a handful of giant capitalists in such an economy own most of the wealth and have in their command the major part of the country's income (see in this context Piketty (2014) and Stiglitz (2012)). India Inequality Report 2018 (Oxfam India (2018)) tells us that only 1 percent of Indians own 73 percent of India's wealth. This estimate has been made on the basis of declared assets only. If undeclared assets were taken into account, the inequality would have been much more extreme. The inequality in the distribution of wealth reflects similar inequality in the distribution of income. Every capitalist society also has multi-party democracy under which every adult citizen has one vote irrespective of whether he is rich or poor. The party that gets the majority of the votes forms the government and exercises state power. The system of multi-party democracy, therefore, grants political equality. The coexistence of extreme economic inequality and political equality or, to put it differently, the survival of capitalism in the face of political equality granted by democracy is a puzzle. Let us explain. Since the political party that gets the majority of the votes comes to power, it is only natural that all the political parties should fall over one another to serve the cause of the poor who constitute more than ninety percent of the people. It is only rational on their part to confiscate the excess wealth and income of the giant capitalists and the rich and distribute them among the people. It is only optimal for them to nationalize all large corporations and run them for the benefit of the masses. In other words, political equality should lead to economic equality. However, none of the political parties behave the way described above. They, in fact, behave just in the opposite manner. They take away land and other properties of the poor and give them away to the giant capitalists free of cost. Clearly, this kind of behavior on the part of the political parties is extremely puzzling. One cannot comprehend how a capitalist society functions unless one resolves this puzzle. In what follows, we shall seek to accomplish it.

In a capitalist society, a political party requires an enormous amount of fund for its survival. It requires a country-wide network of workers and services of media on a very substantial scale to make its programmes and views popular among the people. The larger the amount of fund at the command of a political party, the greater is its competitive strength. On the other hand, the giant capitalists, who own the major part of the country's wealth and produce most of the goods and services, have to protect their enormous wealth and business empire

from the masses. For this, they need state power. As they have the requisite amount of resources, they form the political parties, fund and run them just like their other business enterprises. Through these political parties, the giant capitalists grab the state power. This explains why political parties work for the giant capitalists at the expense of the masses. Thus, in a capitalist society, the state power becomes a commodity, an object of purchase and sell, and it gets sold off to the highest bidder. Democracy and political equality, accordingly, become a farce.

III. Giant Capitalists and Workers: The Mechanism of Exploitation

We shall explain here how the giant capitalists keep the workers under control, ruin their bargaining strength and extract from them their labour and savings at minimum possible prices.

III.1 Extraction of Labour at the Minimum Possible Price

Capitalism sets two classes of people against one another: the capitalists and the workers. The former want to increase their share in total income at the expense of the latter's and vice versa. The giant capitalists control the workers in two ways, namely, by using state power and by reducing their dependence on labour. They invest heavily in R&D and continuously innovate labour saving technological changes, which they incorporate in production making labour more and more redundant in the production process. As workers get continuously expelled from the production process creating a vast and rapidly growing pool of unemployed workers, workers lose all their bargaining strength and make their labour available at the minimum possible wage or whatever wage and work conditions the giant capitalists offer them. Thus, the workers, who constitute more than ninety-nine percent of the population in a capitalist society, live in unemployment or insecure employment under pitiable work conditions and their woes continuously grow over time. To substantiate our claim, we take the case of the organized sector in India. The data given in Table 1 show that during the period 1994 – 2014, while output of the organized sector at constant prices grew at an average annual rate of around 6 percent, number of workers employed in the organized sector remained fixed. Note that Table 1 gives data on growth rates of GDP and not those on the growth rates of the value added of the organized sector. However, during the period under consideration, the value added of the organized sector grew at a faster rate than GDP, since the share of the organized sector in GDP increased during the period under consideration (see Table 2).

III.2 Extraction of Savings at the Minimum Possible Price

Workers have to save to tide over old age and periods of unemployment and illness, when they are unable to work and earn. They park their savings with the financial institutions

owned by the giant capitalists. The financial institutions in their turn lend out workers' savings to the firms and the lion's share of these loans goes to the firms owned and controlled by the giant capitalists. Giant capitalists devise strategies to rob the workers of a part of their savings and secure the remaining part of their savings for themselves at the minimum possible interest rate. We delineate this strategy below. The giant capitalists first target one or more asset markets (may be the stock market or the market for real estate or both) of a country. Then, they, through the global financial institutions and other agencies they own and control, start buying up the assets on a large scale so much so that the prices of the assets begin to increase at a rate much higher than the interest rate prevailing in the market. The media owned and controlled by the giant capitalists bring the scenario to the notice of the masses. They create a strong impression that the inflation rate in the asset prices will remain substantially above the interest rate in future so that one can make huge profit by buying up the assets with loans and reselling them later. The financial institutions, also owned and controlled by the giant capitalists, make loans available on extremely easy terms and in abundance to whoever seeks loans to purchase the assets. Thus, the masses are lured into the speculative game of buying the assets by borrowing from the financial institutions and reselling them later at a large profit. Once the masses get into the game, the rate of inflation in the asset prices rise further above the interest rate fulfilling and reinforcing the hopes and expectations of the masses. Thus, the masses already in the game feel emboldened to increase the scale of their speculative operations and more and more people join the fray. Thus, with the passage of time, the rate of inflation in the asset prices goes on rising riding on the rising tide of the mass speculative frenzy. As soon as the mass speculative frenzy begins, the global capitalists begin to sell from their stock of the assets at a huge profit. Thus, the workers' savings parked with the financial institutions start getting transferred to the giant capitalists in the form of speculative gains. This continues for some time. Then, at an opportune moment, they suddenly dishoard the remaining part of their stock of the assets so that the rate of inflation in the asset prices takes a substantial fall on a sudden creating a mass panic. Suddenly, the spectre of the rate of inflation in asset prices going below the interest rate looms large over the masses and the panic of suffering huge losses and bankruptcy grips the people. There takes place a mad rush for selling off the assets as fast as possible to avoid losses or minimize losses. The asset prices as a result take a deep plunge driving the masses into bankruptcy. The mass loan default puts the financial institutions, which lent on a massive scale, into deep financial trouble. Many of them become bankrupt too. With the bankruptcy and deep financial troubles of the households and financial institutions on a massive scale, deep despondency and pessimism regarding future sets in. Both consumption and investment expenditure fall drastically driving the economy into a deep recession. At this stage, the government and the central bank intervene with a battery of stabilization measures. The central bank and the government rescue the financial institutions by buying off the loans and other assets that have gone bad at remunerative

prices so that the losses of the financial institutions are fully compensated for. The central bank also takes steps so that the interest rate falls to as close to zero as possible. The government also starts expanding its expenditure to revive demand and the economy. However, the government designs its expenditure programme in such a manner that the economy does not recover fully but continues in a desired state of recession indefinitely. Before going into the reason why the government wants the economy to continue in a desired state of recession indefinitely, we shall delineate the state of the capitalist world today to substantiate the scenario described above.

Let us start with Japan. In the eighties, asset prices (prices of stocks, bonds and real estate) started increasing at a much higher rate than the interest rate catching the masses into a speculative frenzy. However, the speculative euphoria came to a sudden end and turned into a panic when the asset prices suddenly crashed in 1991 pushing the Japanese economy into a deep recession in 1992. Households became bankrupt; the large scale loan default drove the financial institutions into deep trouble. Bank of Japan, the central bank of Japan, rescued the financial institutions, cut its policy rate to zero and took other measures so that the interest rate fell to as close to zero as possible. Government of Japan also undertook expansionary expenditure programmes. However, the expenditure expansion programme was designed in such a manner that Japan did not make full recovery from its troubles, but continued in a desired state of recession indefinitely. Even now Japan is in recession. In the eighties, Japan's average annual growth rate of GDP was more than 5 percent (see Table 3). However, in the post-crisis era, the average annual growth rate of Japan's GDP was around 1 percent (see Table 3). At the present, the average annual growth rate of Japan's GDP has dropped to less than 1 percent. When the price of an asset exceeds the level that is warranted by its true worth, the excess of the price of the asset over the level that is warranted by its true worth is referred to as a bubble. When giant capitalists attack an asset market of a country and start buying the asset on a large scale, the price of the asset goes above its true price and a bubble forms in the price of the asset. This bubble swells rapidly first through the speculative purchases of the asset by the giant capitalists and then on account of the mass speculative frenzy. The bubble assumes enormous proportions and, finally, collapses when panic sale of the asset begins and the price of the asset crashes.

Similar scenario unfolded in the case of the US also. In the nineties, a huge bubble formed in the stock prices of dot-com (internet) companies, the bubble grew rapidly and finally burst in 2001 pushing the US economy into a recession. The Fed, the central bank of the US, immediately took measures to reduce interest rates substantially. As soon as interest rate dropped, a bubble in house price started growing at a very high rate and it crashed in 2007 perpetrating a devastating economic crisis. The US economy plunged into a very deep recession, with the households and financial institutions in complete shambles. As happened

in Japan, the Fed and the US Government rescued the financial institutions; the Fed adopted measures so that the interest rate dropped to as close to zero as possible and the US Government undertook expansionary fiscal policy to revive the economy. However, the fiscal policy was so designed that it did not revive the US economy fully, but kept it in a desired state of recession. In the nineties, the average annual growth of US GDP was around 4.5 percent (see Table 3). At the present, the average annual growth rate of US GDP is around 2 percent. Europe also went through similar experiences. In many European countries, a speculative bubble formed in real estate prices; it swelled rapidly and crashed in 2008 plunging the European countries into a deep recession. European Central Bank and central banks of other European countries took measures to push interest rates down to as close to zero as possible. Governments of European countries also adopted expansionary fiscal policies. However, the fiscal stimulus was withdrawn much before full recovery had taken place and the economies continued in a desired state of recession (see Table 3).

We shall now explain why the giant capitalists want the economies, instead of recovering fully, to remain in a desired state of recession indefinitely. Recession favours the giant capitalists in various ways. The recession gives the central bank an excuse to keep the interest rates as close to zero as possible. Thus, workers' savings become available to the giant capitalists at the minimum possible interest rate. However, even though risk-free interest rates fall to the minimum possible level, loans become available at the risk-free interest rates only to the giant capitalists. The recession gives the financial institutions controlled and owned by the giant capitalists opportunities to tighten credit standards and raise sharply the risk-premium on loans given to small and medium enterprises so that interest rates faced by them increase steeply. This leads to substantial erosion in their competitive strength and the giant capitalists compete them out and grab their market shares. The recession and the large scale unemployment that accompanies it ruin the bargaining strength of the workers. This allows the giant capitalists, using their control over the state power and the government, to dilute labour laws and work standards, and incorporate labour saving technological changes without any resistance from the workers.

From the above it follows that, following the disintegration of Soviet Union, the giant capitalists in the advanced capitalist countries have consolidated their position. They have driven down wages and interest rates to their respective minimum possible levels. They have competed out the small and medium enterprises and monopolized society's production. Thus, most of the people today in advanced capitalist countries live in unemployment or insecure employment paying minimum possible wages; their savings earn minimum possible interest rates so that they are in dire-straits in periods of unemployment, illness and old age. Most of the people live in acute poverty and misery today in capitalist societies. Let us illustrate these points with examples from the US economy, the most powerful of the capitalist countries

and one of the richest countries in the world. United States Department of Agriculture (2018) estimated that 11.8 percent of US households were food insecure (i.e., they did not get any food to eat or very little food to eat) in 2017 and 4.5 percent of US households had very low food security in 2017. They also reported that over a period of five years from the day the survey began, 51.5 percent of US households were food insecure for some period in at least one year. U.S. Department of Housing and Urban Development (2018) reported that in 2017, 17 people experienced homelessness on a given night per 10,000 people in the general population in 2016 and 65 percent of the homeless people lived in emergency shelters and the rest in unsheltered locations. However, this estimate of homeless people grossly underestimates the number of homeless people in the USA. The reason is the following. Many of the homeless people in the US are homeless only temporarily due to unemployment or low paying employment. They cease to be homeless as soon as they get employment or better jobs. Therefore, people who are homeless on a given night in a given year are likely to be largely different from those who are homeless on some other given night in the same year. Hence, the number of people who were homeless for at least some short period of time in a given year is likely to be substantially larger than the official estimate reported above. In fact, a study carried out by Reischauer(2000) estimated that between 2.3 million and 3.5 million people in the US experienced homelessness at least for some short period of time in 1999. U.S. Department of Health and Human Services (2016) reported that 10.3 percent of people under age 65 did not have any health insurance in the second quarter of 2015. Given the very high cost of health care services in the US, a person without health insurance does not get any access to health care services. The data given above are indicators of extreme poverty and deprivation. From these indicators, one may reasonably guess that most of the people live in considerable poverty and misery even in the most powerful and one of the richest capitalist countries of the world.

III.3 Religion and Neoclassical Economics: The Two Instruments of Mass Hypnosis

To obfuscate the real reason for people's misery and poverty, the giant capitalists promote religion and a specific school of economics called the neoclassical economics. Religion says that all our sufferings are on account of our misdeeds either in this incarnation or in past incarnations and if we in the present incarnation lead a hardworking, honest, peaceful and pious life dedicated to God, we shall enjoy eternal bliss in heaven after our death or a luxurious and comfortable life in our next incarnation. Global capitalists and the political parties under their control fund and promote religion and religious institutions to bring the masses in the fold of religion.

Neoclassical economics says that a capitalist economy has a mechanism that automatically brings about full employment of all the workers and full utilization of productive capacities of all the firms. Hence, there is no reason to worry about unemployment or productive

capacities remaining unutilized. Such problems may arise, but, according to neoclassical economics, they will get corrected within a reasonable period of time. It also argues that if the government intervenes to remove these problems, it will either be completely ineffective or do harm by slowing down the automatic corrective mechanism. This consoles the unemployed workers with the hope that their period of unemployment will soon be over. An illusion to that effect is also created in the following manner. In capitalist societies, workers work in insecure employment, without any job security. Employers can fire and hire whenever they want. As a result, there is a high degree of mobility from the pool of employed workers to that of unemployed workers and back so that a worker goes through alternating phases of employment and unemployment all through his working life. In other words, in a capitalist society, instead of a specific large section of the labour force being unemployed chronically, the unemployment is shared by all so that a worker on the average may not remain unemployed for long. This creates an illusory impression on a worker on the average that the market automatically takes care of unemployment vindicating neoclassical economics. In consequence, the lack of adequate access to food, clothing, shelter and health care, instead of affecting a given section of workers chronically, is shared by all the workers. Neoclassical economics also says that if a capitalist economy is left to itself, it will not only employ all the workers and utilize fully the productive capacities of the firms, it will also bring about an optimal allocation of resources, i.e., it will produce all the different goods and services in optimum quantities and distribute them among individuals in an optimum manner. In sum, neoclassical economics recommends the policy of free market or laissez-faire under which the government should allow a capitalist economy to function on its own. The real motivation of this policy prescription is to create a theoretical ground on the basis of which the governments in capitalist countries can follow the free market policy so that the giant capitalist get a free hand in managing and running capitalist economies in their own interest. As regards the proposition of the neoclassical economics that a capitalist economy left to itself brings about an optimal allocation of resources, the following point should be noted. In reality, if allocation of resources is left to market forces, resources will get allocated in accordance with the purchasing powers of the people, i.e., most of the produced goods and services will be bagged by the rich or, to put it differently, most of the productive resources of the society will be utilized to cater to the needs of the rich, who constitute a miniscule section of the population, leaving very little for the poor.

In the capitalist countries, incomes of the giant capitalists or incomes of the rich are taxed at the minimum possible rate. In India, for example, the marginal income tax rate has gone up by 30 percent from an annual income of Rs.2.5 lakh to an annual income of Rs.10 lakh. Thus, the marginal income tax rate has gone up on the average at the rate of 4 percent for every additional annual income of Rs.1 lakh between the annual income of Rs.2.5 lakh to the annual income of Rs.10 lakh. Surprisingly, the tax rate stopped increasing from the annual

income of Rs.10 lakh onward. This is all the more disconcerting in view of, as we have already noted, the extreme inequality in the distribution of income and wealth that characterizes Indian economy. Neoclassical economics develops theories justifying this kind of extremely unjust income tax structure. The most influential work in this area was made by Laffer (see Wanniski(2019) in this context).

We described above how the giant capitalists mount speculative attacks on asset markets of different countries to destroy workers' bargaining strength to grab their savings and labour at minimum possible prices and compete out their smaller counterparts. Neoclassical economics develops theories to portray this kind of extremely violent predatory behavior of the global financial institutions under the control of the global capitalists as quite harmless and shorn of any ill motive and likens it to that of a herd of sheep (see, for example, Banerjee (1992)). Clearly, global capitalists fund and promote neoclassical economics and its practitioners.

No wonder, religion and neoclassical economics are ubiquitous in capitalist economies today. Neoclassical economics is the only kind of economics that we find in the syllabuses of all universities, colleges and schools today in capitalist countries. Students today in the capitalist countries hardly hear of any other school of thought in economics.

The objective of every civilized society should be to develop and utilize the human resources of the country to the fullest possible extent. To achieve this goal, every individual should be provided with a socially gainful job that best suits his ability and every individual should have access to quality basic food, clothing, shelter, health care and education in adequate quantities. To achieve this in minimum time, obviously, all the productive resources including all the workers in the labour force should be employed to produce the goods and services mentioned above. This implies that leakages of scarce productive resources into the production of luxury items of consumption and investment should be stopped completely. To accomplish this, the government should tax away all the surplus income of the rich, impose ban on production of luxury goods and directly take part in the production and distribution of the essential goods to make sure that all the workers of the labour force and all the non-labour resources get fully utilized to produce the desired bundle of goods and the produced bundle of goods gets distributed among the individuals in the desired manner.

In contrast, if the neoclassical prescription of laissez-faire is followed, most of the resources will get utilized to cater to the needs of the rich constituting a miniscule section of the population leaving very little for the rest of the population. There will also emerge a large and growing pool of unemployed workers eroding rapidly the bargaining strength of the workers. Obviously, this violates all norms of a civilized society.

From the above it follows that to form a civilized society one has to put a stop to commodification of state power. Political parties have to be given an opportunity to represent the masses. To achieve it, all sorts of private funding of political parties should be declared illegal and the government should create infrastructure and facilities so that all political parties get equal opportunities for making their policies and views known to people free of cost. The masses have to be made aware of the real reasons for their misery and plight so that they spontaneously make demand for the political reform noted above. This political reform is the necessary first step for achieving true political equality, which will abolish economic inequality and establish a civilized society.

III.4 The State of the Erstwhile Colonial Countries like India

Capitalism was expansionist right from its birth. The giant capitalists of West Europe and the USA, using their hold over state powers, colonized the whole world by the time World War I had begun. To increase profit, it was necessary to increase sales or the market size and establish monopoly rights over sales in the market. Catering to larger markets required larger production, which in turn needed larger supplies of raw materials and labour. By conquering a country and making it a colony, the conqueror can establish monopoly rights over sales of his products and purchase of raw materials and labour in the colony by destroying indigenous competition and disallowing entry of foreign competitors. Acquiring monopoly rights over sales and purchases, the conqueror can sell his products at the highest possible prices and purchase inputs at the lowest possible prices in the colony. The giant capitalists were a divided lot; they were divided in accordance with their nationalities. They fought with one another two world wars for larger shares of the colonies. These world wars weakened the giant capitalists considerably. After World War I, emperor Tsar of Russia became so weak that the Bolsheviks (communists) overthrew him and took over power establishing the first socialist state in the world on Marxist-Leninist lines. The socialist state born in Russia eventually grew into a much larger state, the state of Soviet Union. Economic development of Soviet Union was spectacular. After the Second World War, which Soviet Union helped the Allied powers to win defeating Germany, it emerged as a super power in the sphere of not only military but also knowledge, science and technology. The stupendous economic success of Soviet Union and its rise as a super power strengthened and inspired workers' movements and socialist parties and forces all across the world. Thus, after World War II, socialism became a viable alternative to capitalism and posed a grave threat to the capitalist powers. Threatened with extinction, the giant capitalists shed their differences and got united to destroy Soviet Union. World War II also devastated the major capitalist countries. The giant capitalists, therefore, set themselves to two major tasks after World War II: those of reconstructing their countries and destroying Soviet Union. They had to utilize all their resources for accomplishing these two tasks so much so that they had no more resources left

for containing the rising nationalist movements in their colonies and, thereby, retaining their hold over them. Hence, they granted them independence. However, before giving the colonies independence, the giant capitalists devised strategies to weaken the colonies considerably so that they can exercise control over the colonies indirectly. In case of India, they followed divide and rule policy, funded and promoted communal parties and forces to weaken nationalist movements and finally, before granting independence, divided the country into India and Pakistan (see in this connection Dutt (1970), Khan Durani (1944) and Stewart (1951), among others). After gaining independence, Pakistan sided with the capitalist powers, while India allied with Soviet Union. India adopted Soviet model of planned economic development and sought to develop India economically through Five Year Plans and set socialism as the goal to achieve.

The Indian version of the Soviet model of planned economic development that India adopted is known as Nehru-Mahalanobis Strategy. It had two major objectives. One major objective was achieving self-reliance, which meant eliminating dependence on imports by developing the capability of producing all the different goods and services India needed. The strategy emphasized on developing basic and heavy industries, which were highly import-intensive. The objective of self-reliance makes eminent sense because it is necessary for a country like India to remain independent. Let us explain. First, note that imports have to be financed with exports. Since a country like India does not produce anything indispensable and exclusive and since close substitutes of the goods a country like India produces are available everywhere else at the same or lower prices, its bargaining strength in the world market is nil. How much it can export, therefore, depends crucially on foreign countries' whims. Under such circumstances, to export on the required scale, it may have to act in accordance with the dictates of the importing countries and, thereby, may have to compromise its autonomy and independence.

The other major objective of the Nehru-Mahalanobis Strategy was to provide the masses with quality food, clothing and shelter in adequate quantities at affordable prices and create a universal education and health care system so that everyone gets access to health care and education on the scale one needed or wanted them free of cost. Clearly, this should be the objective of economic policies in every civilized society.

The Nehru-Mahalanobis strategy imposed stringent restrictions on the economic activities of individuals and firms such as production, consumption, investment, export, import etc. The purpose was to make sure that all the resources get utilized to produce only those goods and services that were necessary to realize the goals mentioned above.

India, however, could not sustain the Nehru-Mahalanobis Strategy for long. She had to give it up in 1991. We identify two major reasons for this failure. First, the choice of the strategy

was wrong. India did not choose a strategy, which it could implement using its own resources. For example, a strategy centred on the development of agriculture, village and cottage industries fortified with intense R&D efforts to improve their productivities using resources available indigenously might have been a feasible strategy. Instead, Nehru-Mahalanobis Strategy emphasized on the development of heavy and basic industries, which were highly import intensive. Since India's export potential was very low, it had to depend upon foreign assistance for implementing the strategy right from the very beginning. Therefore, the rate at which the strategy could be implemented depended on the rate of inflow of foreign assistance, which came in a large measure from the advanced capitalist countries under the control of the global capitalists. Hence, the global capitalists controlled the rate of implementation of the strategy right from the very beginning. Second, the Strategy did not put any emphasis on creating an independent and original base of knowledge and technology. A country can never devise ways and means of eliminating its dependence on imports without achieving the capability of developing its own independent and original knowledge and technology. Imported knowledge and technology are never state-of-the-art, nor are they designed to make the importing country self-reliant. A country dependent on imported knowledge and technology can never be self-reliant or internationally competitive. Socialist countries such as Soviet Union and China invested heavily in developing their own knowledge and technology and, thereby, tried to achieve independence in the sphere of knowledge and technology right from their very birth and they achieved independence in this sector.

The question that, therefore, emerges is why India made the two errors noted above? The only explanatory hypothesis that we can suggest is the following. The global capitalists never wanted India to be self-reliant and independent. They threatened India with war through Pakistan and, thereby, forced India to make the above-mentioned two errors. The Indian leadership at that time, in our view, did not want the development process to be disrupted by war. Hence, they did not want to take any risk despite the support extended by Soviet Union. Perhaps they wanted India to attain certain level of development and gather some economic and military strength before risking embarking on an independent development path. However, India never got that opportunity. By the end of the seventies, India more or less developed the capability of producing all the industrial goods that it needed. Until the end of the seventies, India never borrowed externally from commercial sources to expedite its development process. It only sought and accepted foreign aid. However, from the beginning of the eighties, it threw all caution to the wind and started borrowing heavily from commercial sources and relaxed the restrictions on imports considerably. India did so with the explicit purpose of modernizing its existing industrial facilities. It was argued that the existing facilities were not cost efficient and modernization was absolutely essential to be internationally competitive. Thus, all through the eighties, India imported heavily, ran very large current account deficits and financed them by borrowing from external commercial sources. As a result, its stock of

external debt and the amount of external debt service charges started growing rapidly. In 1990, the Gulf War broke out. It brought about a steep hike in oil prices, which led to a very large increase in India's current account deficit. Right at this point of time, foreign lenders suddenly realized that it was no longer prudent to lend to India. They stopped extending loans to India. This put India in dire straits. India was not in a position to meet its current account deficit. Hence, it had to seek IMF's assistance. IMF obliged. However, in return, it made India give up its Nehru-Mahalanobis Strategy and adopt in its place New Economic Policy (NEP). Thus, India surrendered its policy making autonomy to the IMF, an agency that the global capitalists control through their hold over the state powers of the major capitalist countries.

India's external borrowing spree in the eighties was suicidal and, therefore, constitutes a grave puzzle. Let us explain. India's leadership in the eighties definitely knew that it was never possible to achieve international competitiveness using imported technology, which is never state of the art. By the time the process of modernization is complete, a new set of technologies will come up rendering the facilities built up obsolete or inefficient. A country can achieve international competitiveness or eliminate dependence on imports if and only if it develops the capability of producing its own knowledge and technology. Indian leadership, therefore, knew that modernization through technology import would not add to India's export potential or export earning but bring about a high rate of increase in import bill and external debt-service charges driving India into an external debt trap. It would become completely dependent on the supply of foreign loans on the required scale and, thereby, surrender itself completely to the foreign lenders. Why, then, did the Indian leadership embark on the external commercial borrowing on such a huge scale in the eighties? The only hypothesis that we can suggest is the following. Soviet Union became considerably weak in the eighties and surrendered to the global capitalists by giving up socialism and embracing capitalism in 1985. In the eighties, therefore, Soviet Union was not in a position to give any protection to India. Taking advantage of this situation, the global capitalists through a group of non-resident Sikhs launched a strong separatist Khalistan movement in Punjab (see in this connection Pruthi(2004) and Van Duke (2009), among others). This very strong and violent movement at the very heart of India, in our view, unnerved the Indian leadership. To save themselves and to save the country, they had to follow the dictates of the global capitalists and had India engaged in external commercial borrowing on an unsustainable scale knowing fully its implications.

III.5 India under the New Economic Policy (NEP)

The NEP consists in dismantling all the regulations imposed by the previous regime on economic agents' economic activities such as production, investment, consumption, prices, distribution, export and import so that market forces get a free hand in utilizing and allocating

the productive resources of the economy. By allowing market forces a free play in utilizing and allocating productive resources of the economy, NEP seeks to achieve two major goals. First, it gives the global capitalists a free hand in running and managing the economy. Second, it makes sure that the major part of India's productive resources gets utilized to cater to the needs of a miniscule section of the rich. While the first point is quite self-evident, the second point needs to be explained. As we have already pointed out, India is a highly unequal country. To recall, according to the India Inequality Report 2018 published by Oxfam India (2018), only one percent of Indians own 73 percent of India's total wealth. This estimate has been made on the basis of declared assets only. If undeclared assets were taken into account, the inequality would have been much more extreme. The inequality in the distribution of wealth reflects the inequality in the distribution of income. Thus, only 1 percent of Indians own around 80 percent of India's wealth and have in their command about 80 percent of India's income. If allocation of resources is left to market forces, people with purchasing power will bag most of the resources leaving very little for the poor. Thus, NEP makes sure that most of India's productive resources get utilized to produce goods and services that meet the needs of just 1 percent of Indians leaving the rest of the population completely impoverished.

NEP deepens India's dependence on foreign investment manifold and, thereby, delivers India completely and helplessly in the hands of the foreign investors (global capitalists). Let us explain. We have already pointed to the extreme inequality in the distribution of income and wealth in India. The NEP has reduced drastically income tax rates on the rich. Now, the marginal income tax rate is capped at 30 percent (see Table 4). From an annual income of Rs.2.5 lakh to that of Rs.10 lakh, the marginal income tax rate has increased by 30 percent, i.e., it has increased on the average at the rate of 4 percent for every additional annual income of Rs. 1 lakh. Shockingly, the increase in the marginal tax rate has stopped at the annual income of Rs.10 lakh. It has not increased any further. Thus, the incomes of the richest 1 percent of Indians who have in their command most of India's GDP are taxed at the minimum possible rate. These richest Indians spend their income on luxury goods which are either imported or produced domestically with imported technology and imported inputs. Thus, the extreme inequality in the distribution of income and wealth coupled with the extremely unjust income tax structure make India's consumption, production and investment very highly import intensive. On the other hand, India's dependence on imported technology and knowledge makes India's export potential very low. Therefore, even to sustain a modest level of production, India requires foreign investment on a large scale. This makes India hopelessly dependent on foreign investors and India has to abide by their dictates at every step. India, thus, has become a colony of the global capitalists again.

The NEP has also very significantly reduced government's command over resources. Let us explain. India's highly unjust income tax structure taxes the incomes of the rich, who have

in their command the major part of India's aggregate income, at the lowest possible rate. Moreover, the rich through their hold over the government evade taxes on a large scale so much so that around 70 percent of India's direct tax collection comes from the salaried people (Government of India(2018)). Hence, India's direct tax collection under NEP is quite poor. Major part of India's tax revenue comes from indirect taxes, which are highly regressive and unjust. The scope for raising indirect tax collection is also quite limited. This is because hikes in indirect tax rates raise domestic prices, which very substantially reduce export and raise import, since close substitutes of Indian products are available everywhere. The resulting large BOP deficit sends the exchange rate soaring creating considerable instability. NEP has also put stringent restrictions on government's fiscal deficit, which means government borrowing. All the factors mentioned above have significantly undermined government's ability to invest in agriculture, R&D, education, health care, finance and public distribution system much to the misery of the common people. The government has to depend upon the private sector to produce all the goods and services and the private sector produces only for the well-heeled people. Thus, NEP has substantially impaired government's ability to meet the basic needs of the poor and to invest in education and R&D to develop an indigenous base of knowledge and technology.

From the above discussion it follows that the NEP has achieved the following feats. It has made sure that India remains completely dependent on the bounties of the global capitalists so that India remains fully under their control. It has also created a setup such that most of India's productive resources get utilized to meet the needs of the richest 1 percent of the Indians leaving very little for the rest of the people. Thus, the goals NEP has achieved are just the opposite of those set by the Nehru-Mahalanobis Programme. The question that emerges is how to get out of this extremely unjust and dependent state. To gain independence and to create a just society, India should strive to achieve the following. First, it has to be self-reliant by eliminating its dependence on imports. Second, it has to make sure that all its productive resources get used to develop the mass consumption good sector and the knowledge and the technology sector at the fastest possible speed. This is necessary to provide every citizen with quality food, clothing, shelter, health care and education on an adequate scale. Investment in the knowledge and technology sector is necessary to devise ways and means of developing the mass consumption good sector on the required scale at the fastest possible speed using only indigenous knowledge, technology and resources. To achieve the goals set out above, all the surplus income of the rich have to be taxed away so that import, production and consumption of non-essential goods and services fall to the minimum possible level. The resources thus released should be utilized to develop the mass consumption good sector and the knowledge and technology sector at the fastest possible speed. The government will have to take part in the development process directly as planner, producer and investor

to make sure that all the available resources get fully utilized in an optimum manner in the desired development programme.

The development plan chalked out above is infeasible in India in the present scenario. All the political parties that matter are owned and run by the global capitalists. Note that the giant Indian capitalists are only faithful local representatives of the global capitalists. Otherwise, they would have been ruthlessly crushed out of competition. Most of the giant Indian capitalists have their origin during the period when India was under the British rule. The giant British capitalists colonized India fighting off other giant European capitalists with the sole purpose of establishing monopoly rights over purchase and sale in India. Obviously, they would not have tolerated emergence of any giant Indian capitalist. They did so only because the giant Indian capitalists were the creations of the giant British capitalists. The former were only representatives of the latter. The Indian giant capitalists ran the businesses of their British counterparts and the arrangement was cleverly disguised. This is the only plausible explanation of why the British giant capitalists who fought tooth and nail their other European counterparts in colonizing India allowed Indian giant capitalists to emerge.

The only solution, therefore, lies in giving the political parties an opportunity of truly representing the masses. They have to be taken away from the clutches of the global capitalists. For that, private funding of all political parties should be declared illegal by the government. Government should create infrastructure and facilities so that all political parties get equal opportunities for making their programmes, policies and views known to people. Of course, no government will do it of its own free will. To make the government do it, the masses should be made aware of the true cause of their plight. They should get united and force the government to bring about the political reform mentioned above. That is the necessary first step for getting the political equality granted under democracy to lead to economic equality and justice.

References

- Dutt, R.P.(1970). *India Today*, Second Edition, Manisha, Calcutta.
- Banerjee, A.V.(1992). A simple model of herd behaviour, *The Quarterly Journal of Economics*, 107(3), pp. 797 – 817.
- Government of India(2018). *Union Budget 2018-19*, Ministry of Finance.
- Khan Durrani, F.K.(1944). *The Meaning of Pakistan*, S.H. Muhemmad Ashraf, Lahore.
- Oxfam India (2018). *India Inequality Report 2018*, https://www.oxfamindia.org/sites/.../himanshu_inequality_Inequality_report_2018.pdf
- Picketty, T.(2014). *Capital in the Twenty-First Century*, Harvard University Press.

- Pruthi, R.(2004). Sikhism and Indian Civilization, Discovery Publishing House, India.
- Reischauer, R.(2000). A new look at homelessness in America, Urban Institute Publications, Washington, DC, February.
- Stewart, N.(1951). British Policy in Indian History, Science & Society, Vol.15, No.1, Winter, pp 49-55.
- Stiglitz, J.(2012). The Price of Inequality, W.W. Norton and Company.
- U.S. Department of Agriculture (2018).Food Security in the US, Economic Research service.
- U.S. Department of Health and Human Services (2016). 2015 National Health Care Quality and Disparities Report and 5th Anniversary Update on the National Quality Strategy, Agency for Health Care Research and Quality.
- U.S.Department of Housing and Urban Development (2018). Annual Homeless Report (AHAR) to Congress, Office of Community Planning & Development.
- Van Dyke, V.(2009). The Khalistani Movement in Punjab, India and the Post-Militancy Era,: Structural Change and New Political Compulsions, Asian Survey, Vol.49, No.6, Nov./Dec, pp. 975-997.

Table 1

Employment in the Organized sector (in million)

Year	Growth Rate Of GDP At Constant (2004-05) Prices	Number of Workers Employed
1994-95	6.4	27.53
2000-01	5.3	27.79
2001-02	5.5	27.20
2003-04	8.1	26.45
2004-05	7.0	26.46
2005-06	9.5	26.96
2006-07	9.6	27.24
2007-08	9.6	27.55
2008-09	6.7	28.18
2009-10	8.4	29.00
2010-11	8.4	29
2011-12	5.3	29.65

Source: RBI

Table 2
Contributions of the Organized Sector and the Unorganized Sector to the Value added of Major Sectors of Production and NDP

Industry	1993-94		2003-04		2010-2011	
	Organized	Unorganized	Organized	Unorganized	Organized	Unorganized
Agriculture, Forestry and Fishing	3.5	96.5	4.1	95.9	5.8	94.2
Mining, manufac Turing	64.2	35.8	60.5	39.5	64.5	35.5
Electricity, construction and services	47.1	58.9	53.1	46.9	42.2	51.8
NDP	36.8	63.2	43.3	56.7	45.1	54.9

Source: CSO (2005): National Accounts Statistics 2005, Government of India and National Accounts Statistics 2012, Government of India

	2011	12	13	14	
China	9.5	7.8	7.7	7.3	
France	2.1	0.2	0.7	0.2	
Germany	3.7	0.4	0.3	1.6	
Greece	-9.1	-7.3	-3.2	0.7	
Ireland	2.6	0.2	1.4	5.2	
Italy	0.6	-2.8	-1.7	-0.4	
Japan	-0.5	1.8	1.6	-0.1	
KoreaRep (South)	3.7	2.3	2.9	3.3	
Malaysia	5.3	5.5	4.7	6.0	
Portugal	-1.8	-4.0	-1.1	0.9	
Spain	-1.0	-2.6	-1.7	1.4	
Thailand	0.8	7.3	2.8	0.9	
UK	2.0	1.2	2.2	2.9	
USA	1.6	2.3	2.2	2.4	

Source: World Bank

Table 4

Income Tax Slabs for Individuals and Hindu Undivided Family of Less Than 60 Years of Age for the Financial Year 2018-19

Income Tax Slab	Tax Rate	Health and Education Cess
Income up to Rs.2,50,000	No tax	
Income from Rs.2,50,000 –Rs.5,00,000	5%	4% of total tax
Income from Rs.5,00,000 – Rs.10,0000	20%	4% of total tax
Income more than Rs.10,0000	30%	4% of total tax

Surcharge: 10% of total income tax for income from Rs.50 lakh to Rs.1 crore

Surcharge: 15% of total income tax for income more than Rs.1 crore

Source: Income Tax Department, Government of India

RESEARCH AND POLICY CONNECT IN SOCIAL SCIENCE RESEARCH IN THE NEO-LIBERAL AGE¹²³

SUDHANSHU BHUSHAN⁴

Abstract

Education has many dimensions and spatial distribution of education in our country is largely uneven. The neoliberal thinking on structural changes in the education system has influenced social science research and its relation to education policy in India. Although state funding is needed for research yet it should not overpower the research culture conducive for research growth which is inclusive and socially meaningful.

Keywords :Education Policy, Social Science Research, Neo-liberal policy frame.

JEL Classification Codes :I21, I23,I28.

I.Introduction

In a radical shift from state welfarism, neo liberal higher education policy reform is guided by centralization, marketization and technology dominance. The state welfarist institutions, processes and strategies of governance is radically shifting towards accountability, self governance, voluntary disclosure, contracting and maintaining transparency in a neo liberal setup. The governance is moving from institution building to directing institutions to adapt to above strategies. The process of transition is full of regulatory instructions with little concern of how these regulations are followed at the bottom of hierarchy. The field institutions, the majority of them, are left to themselves in a bewildered manner. The reason is shortage of teachers, infrastructure and resources in a majority of institutions incapacitate institutional heads to follow regulations of governance. There are socio-political compulsions in the institutions and practical difficulties of enormous variety with which the institutions of higher education are confronted in real situations of scarce resource support. This creates an asymmetry in the neo liberal and rational policy design of the state and the real world life of

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³ No part of the paper may be reproduced without the permission of the author as the arguments in the paper are still evolving.

⁴ Head Department of Higher and Professional Education, National Institute of Educational Planning and Administration. e mail - sudhanshu@niepa.ac.in

institutions of higher education confronting pressures to adjust to market as well as non market forces specific to local contexts.

In the above scenario of rational policy design influenced by neo liberalism and actual processes of governance influenced by non rational factors such as power, politics, populism, favour constructing and deconstructing institutions what could be the role of social science research is an important question? Before elaborating further on the question I feel it necessary to throw some light on social science research.

Much light from empirical evidence has been thrown from two basic documents. Functioning of ICSSR and its funded institutions has been reviewed in terms of funding from government and distribution of funding across research grants and fellowships and its impact in terms of articles and books published by Indian authors (Government of India. 2011; ICSSR. 2007; Vaidyanathan, A. 2008). Another book edited by Thorat and Verma in 2017 has examined, besides, funding, infrastructure, output and quality, the policy impact of social science research. (Thorat S and Verma S. 2017). In section IV of the book the author, based on perceptions, notes that “It reveals the widening gap between SSR (social science research) and policy making, wherein both aspects are mutually exclusive and function at parallels” (op. cit p.372). The analysis in section IV of the book further points out that consultation of experts during policy formulation and impact and evaluation studies at the level of policy implementation by research institutes or private NGO based organization rather than high quality research assume importance in the policy process.

If there is a disconnect or absence of linear relation between the social science research and policy what is it that guides policy in a democratic context in India? It was noted above that policy both at the level of making and its implementation is guided by rational as well as non rational factors, guided by market as well as non market factors. The central question that emerges is: If research is not directly the source of neo liberal policy design then how and wherefrom does a policy get its legitimacy? This is a question to ask not to devalue the role of social science research but to understand the source of inspiration of neoliberalism. In my point of view it is the discourse created by the elites at the top that influence the policy and they construct evidence from the research in their favour through impact and evaluation studies. Another point is: Is social science research therefore irrelevant? I think it is not. The inspiration and enthusiasm lies in understanding the field reality. whatever be the policy design constructed by state actors influenced by political and social ideology, it is important for the researchers to reach the people and understand the institutions, behaviour, practices and depict the truth. It is at the level of practice that researchers can create a discourse which may counter a discourse constructed by the elite at the top echelons. It is this opposition that guides the policy.

Therefore, my contention is as follows: The policy is determined by discourse. Discourse is created by elite circles consisting loosely of experts, policy analysts closely working with the government, bureaucrats. They create, construct and cite research findings to support the discourse. Discourse creates power balance in favour of state. However, it is not uninfluenced by the countervailing discourse that originates in the field through research, but not only through the research but the movements, protests and discussions which state may ill afford to ignore. The powerful role of social science research lies in exposing the ideal that policy text mentions by uncovering the truth from field. I must point out the role of media is no less important in the age of ICT. However, the importance of research is that it lasts long and read by students, researchers and stakeholders which are all potential agents to ignite the fire of countervailing discourse.

Hence policy is not the neutral process guided by a scientific and rational policy design. Policy is the result of contestation, conflict and compromise. It reveals through the process the interplay of power. It is not a discrete, sequential and independent stages through which it passes from problem identification, optimal solution and the policy text and implementation. Rather it expresses through the discourse at every stage of the policy in all micro level of decisions. State level machinery may support the discourse that has the power of control by way of market based strategies, laws, rules and regulations. On the other hand, countervailing discourse is all that supports freedom from the control apparatus of the state. Neo liberalism is the control apparatus of the state through the market principles in which accountability is imposed through the contract, transparency without any state support. An actor then has to find his or her way out through innovations, leadership, or agency level changes. The role of social science research is just to understand all the policy processes. Elite researchers may give credence to the neo liberal apparatus of control whereas there are researchers who may give findings through the ill designed or robust research - the findings which throw greater light on understanding the lives of people. There is the value of all social science research one which gives power to certain discourse and other which negates the discourse.

In the following lines of argument, I would like to examine the neo liberal apparatus of control. Further I would throw light on policy process by citing examples and showing the powerful influence of discourse. I will show the role of research utilised in supporting the discourse. In the higher education arena there are instances of policy guided through a range of discourse which create perceptions and consensus in favour of policy. Some examples are presented below to highlight this. An assessment of social science research is necessary as a backdrop before we analyse how neo liberal policy is shaping the research environment rather autonomously defying the impact of social science research on the policy.

II. Assessment of Social Science Research

A very small proportion of universities in India emphasize the research over teaching. This limits the scope of research opportunities in universities. DFID (2011). National Institutional Ranking Framework, 2018 shows that among the universities research performance is the highest for Indian Institute of Science which has a score of 91 out of 100. The other universities fall in research score very significantly. For example, Anna University has a research score of 60 followed by university of Delhi at 58, Yadavpur university at 57, BHU at 50, University of Hyderabad at 45 and JNU at 42. High research scores may be due to the dominance of science and JNU which is considered good in social science has fallen down the many universities. 2007 ICSSR review reports that the social science research coming out of a majority of universities have fallen short of expectation in influencing public policy. (ICSSR, 2007) ICSSR review in 2011 notes that a faculty member in CDS or CESS or CMDR writes about one chapter per year in an edited volume. On the other hand, a faculty members in IIE or BANISS contribute virtually nothing to edited volumes.

There was almost the monopoly of public policy in 1950s and 60s being guided by the rational economic and technical criteria, specialists and experts playing a major role in deliberations. However, in the period since 1970s when there were signs of the failure of public policy for various socio-political reasons the role of social science research became manifest. (Kuldeep Mathur, James Warner Bjorkman, 2009). Mathur and Bjorkman note that within the social sciences economic decision making attracted primary attention and Planning commission was the pivotal agency for this advise. Universities and research institutes emerged as critical social policy analysts criticizing the role of government and top down approach as they began to point out the policy as discursive process grounded on subjectivities and opinions of the people. The challenge of social science research was to bring these conflicts and contestations to the fore.

There are two major strands of thought in social science research influencing the public policy. Those influenced by Marx and his ideas were interested to understand the role of power and politics and the way in which state takes sides with corporate interests. On the other hand, those influenced by market paradigm were in favour of liberalization and privatization especially after 1980s. The period since 1980s see the dominance and paradigm of market influence in public policy. Neo liberals went on to argue the state withdrawal and increasing role of market from the point of invoking efficiency and competition. A contested literature followed citing the field realities where adverse impacts of privatization were noted, notwithstanding the fact that state itself was instrumental in championing neo liberal policy measures coupled with policy guided by populist measures. It may be difficult to assess the role of social sciences in directly impacting public policy. State power dominated in public policy design over the voices of researchers who brought the view from a social scientist

perspective. Such voices were declared anti establishment and were subjects of discussion within university and hardly became the input for policy discussion, notwithstanding the fact that universities were constrained to do research due to heavy teaching loads. Thus the connect of social science research and policy seems to be marginal and peripheral in India. However, social science research in India continues to be the voices of dalits and marginalized and continues to alert the government on many fronts. Some of the few recent researches in the area of demonetization, farmers suicides, nationalism, wages and unemployment, etc. are important in influencing public policy or the manifesto of the political parties in assessing the impact of public policy. Social science research thus creates contestations and opposition to official policy and becomes a force in modifying it rather than directly becoming the source of official public policy. Policy has to be understood not as the text but as a process it is always in flux, being modified through the opposition inspired by the social science research.

However, the process of indigenous knowledge creation in social science was far from satisfactory. It suffered from western domination of knowledge, elitism, urban bias, and further due to disciplinary imbalance, lack of interdisciplinarity and brain drain. (Shamita Sharma, 1992). Funding constraint was noted behind the decline of many state funded research institutions in India since 1980's.

There is, thus, a dilemma of social science research in India. There is a large and diversified higher education system, research institutions and research councils engaged to promote social science. Post colonial phase of social science research though was instrumental in guiding national development it is still dominated by few. Moreover, the productivity of Indian social science research in terms of international standing is very low indicating that western knowledge is still dominating. How to break that impasse? Concepts derived from western paradigm of knowledge cannot find a solution to the problem rooted in Indian social context. For example, caste has survived modernisation and we have not found solutions to the problems emanating from hierarchical structure of caste even in modern world. Elite domination and low productivity of social science research need to be addressed in a large and diversified higher education.

Above assessment of social science research and its connect with the policy now needs to be assessed within a larger framework of neo liberal policies that have influenced research practices in higher education. While the contribution of social science research to influence and modify policy is undeniable, as shown above, research policy itself has suffered from neo liberal design. Review of literature, albeit short, shall throw light on what neo liberal designs are and how does it constrain the freedom of academia?

III. Research Policy - Neo liberal Design

Funding: There has been shift in the research policy which is remarkable in terms of its worldwide prevalence. It is argued that research funding is influenced by 'research grant culture' which has its ideological demands for accounting, efficiency, austerity, utility, and measured effectiveness. (Daza, 2012). There is increasing pressure on universities to raise research funding from industry and contribute to economic development. Musico, A., Quaglione, D., Vallanti, G. (2010) in their paper utilized financial data of Italian university research departments of engineering and physical sciences. Based on probit and tobit cross section and panel data paper investigated impact of different forms of public funding to university departments and their ability to attract private funding. The empirical evidence showed that public funding enhanced department's capability to collect external resources and refuted the hypothesis that private fund or external resources are crowded out by public funding to research. Hence government initiatives to cut funding to universities are totally inconsistent with the aim of increasing private funding opportunities for universities. Further econometric analysis implied that the cut in public funding for research activities would probably distance the universities capability to attract private funding. Hence policy measures should be addressed to strengthening and rationalizing the system of public funding to universities through an increase in the amount of public competitive resources for academic research.

In another study by Nisar (2015) performance based policy, another hall mark of neoliberalism, has been examined. The study notes that the federal government of USA embraced the policy of Performance Based Funding in the field of higher education in 2013. The author provides significant insights by applying ecology of games perspective to failure of performance based funding policies in higher education system in USA. The author applies ecology of games perspective⁵. The ecology of games points out the limitations of "central decision making" and "top down policy". However, the role of government as an important policy player in the ecology of games is significant as opposed to neo liberal policy stance of state withdrawal.

Quality of Research: Under neo liberal policy design quality of research has utilitarian perspective. Research policy globally is marked by an increasing emphasis on 'excellence', utility and the prioritisation of knowledge production to serve economic needs (Slaughter and Leslie 1997). In this context, non-applied subjects are assumed to have little use value (Thornton 2009). Leathwood, C. and Read. B. (2013) conducted a study in Britain to understand the nature of academic work. Findings of the study highlighted elitism in the research by pointing out current research policy benefits going to well established researchers (senior white men) in elite universities. Early career researchers and critical, innovative, small-scale, feminist researches are under threat. Study also pointed contestation from almost

all academics towards research policy. Due to lack of alternative, love for their work and employment issue academics continue to work with research audit and performativity. The personal costs for women academics appeared to be particularly high. So this paper addressed wider inequalities in the structures, cultures and practices of the academy, constructions of academic subjectivities and academic work.

Efficiency Focus: Efficiency and productivity measurement is an important aspect of neo liberal research policy design. Though there are difficulties in measuring efficiency as the concept of work load for an intellectually driven exercise is difficult to define. Besides the work load it is difficult to understand the nature of the variety of support staff necessary to support research eco system. The amount of resources and infrastructure necessary for efficient and productive research eco system may be enormous and any administrator's use of saving of resources may be counterproductive. (Carter, 1972) In another study performance management activities in eleven public and five not-for-profit research-sponsoring organizations was studied. Organizational structure, research activities and organizational environment provided a framework for examining the way efficiency is measured. Findings suggested that the environment of an organization is significant determinant of productivity measurement. Other factors related to organizational structure and task management, which are partly determined by organizational design, also account for differences in the use of output and efficiency measures. There is the message through the research findings that any neo liberal measure of research productivity without concern for the organization's strategy to manage the research funding and the research project with support staff can be detrimental to the research productivity. (Wise, L.R. and Agranoff, R., 1991)

Assessment: Another important characteristics of research policy under neo liberalism is the impact assessment. Citation factor is assuming importance in competitive research funding. Citation, however, in social science research in developing countries may not be as relevant as social impact assessment due to not so well developed research journals market. Even in a country like Sweden high citation indexes may not necessarily result in ground breaking research. It is indeed important to note that a highly fragmented and competitive system can undermine efforts to foster groundbreaking research. The logics by which researchers approach their funding applications and research output may run contrary to the logics of market system. (Young, 2015). Market based philosophy is very superficially embedded in the value system of academics. At the same time it may also be noted that excessive state sponsored interference also impedes the functioning of academics. In other words, professional ethos of academic research neither favour market nor state control. (Pritchard, 2005). Further point to note is that research productivity and performance depends on how young researcher negotiates with teaching, colleague behaviour, research possibilities and funding, environment and the freedom of inquiry. (Wood, F. 1990).

What is important in the above argument is to understand that research policy under neo liberal policy design leads to control through market based competitive system of funding. It directs research to fulfill utilitarian agenda in the name of quality and excellence. Focus on efficiency undermines the way the researcher makes use of time with flexibility rather than some rigid criteria. Further research assessment through citation and impact factor fails to create a ground breaking research. It creates simply piles of research for the sake of it. In this scenario of research policy with neo liberal design what is being undermined is the freedom of researcher, culture of organization and the flexibility and informality with which researcher engages with the self motivation. Performance drive, assessment and non assured competitive funding is the bottleneck in the high quality research.

After having assessed international experiences it would be in order to understand how Indian higher education policy in recent years has drastically moved towards neo liberalism and how its influence on research policy design has progressed? In this line of thinking it is important to highlight that power of social science research to critically appraise the policy gets diminished. Social scientists may be guided by the market agenda rather than understand critically the market agenda that neo liberal design supports. The power of social scientists to modify the policy through the in depth understanding of field may weaken.

IV. Higher Education Policy Subject to Neo-liberal Rational Policy Design

Accreditation and Ranking: Issue of ranking and accreditation has become the dominant discourse to infuse competitiveness in higher education institutions. Accreditation and quality assurance has been formally established for almost two decades. After more than a decade of voluntary accreditation the government has decided to move towards compulsory accreditation in order to be eligible for central funding. The situation at present is that majority of Indian institutions are neither desirous of accreditation nor there is institutional capacity of accreditation agency to accredit the Indian institutions of higher education. Hence the present stand on accreditation by the government already seems vindicated in terms of the reality check. Hence an important policy question on accreditation as a way of external quality assurance should not escape the reality. The issue of ranking has arisen in view of the concern expressed by many that hardly Indian universities figure in the world ranking of universities. Hence there is increasing craving for acquiring a position of Indian universities in the world ranking. The concern has been expressed in many fora by the President of India and many higher government functionaries. The government has also launched National Institutional Ranking Framework (NIRF) for engineering and management institutions in September 2015 and subsequently extended to other institutions and universities. The parameters broadly cover Teaching, Learning and Resources (30%), Research and Professional Practices (30%), Graduation Outcomes (20%), Outreach and Inclusivity (10%), and Perception (10%).

Both ranking as well as accreditation are the tools of accountability. So far the University Grants Commission of India has introduced various forms of accountability through a series of regulation. The newer forms of accountability by ranking and accreditation are envisaged to further enhance the quality of higher education through competitiveness. There is an additional objective of making institutions transparent in the eyes of the parents and the students who are the ultimate choosers of the institutions.

UGC Quality Mandate: It is important to examine the quality mandate of UGC as issued by DO. F No.1-1/2018 Secretary dated 24th June 2018. The 5 point quality mandates refer to (i) improving the graduate outcomes for the students, so that at least 50% of them secure access to employment/self-employment or engage themselves in pursuit of higher education. (ii) Promote link of the students with the society/industry such that at least 2/3rd of the students engage in socially productive activities during their period of study in the institutions. (iii) Train the students in essential professional and soft skills such as team work, communication skills, leadership skills, time management skills etc; inculcate human values and professional ethics, and the spirit of innovation/entrepreneurship and critical thinking among the students and promote avenues for display of these talents. (iv) Ensure that teacher vacancies at any point of time does not exceed 10% of the sanctioned strength; and 100% of the teachers are oriented about the latest and emerging trends in their respective domains of knowledge and the pedagogies that translate their knowledge to the students. (v). Every institution shall get NAAC accreditation with a minimum score of 2.5 by 2022.

Above quality mandates in Indian higher education for employability, entrepreneurship, skill development goes far beyond liberal education. They direct institutions to serve economic ends.

Outcome Based Education: UGC has initiated the curricula to develop a framework of outcome based education. It is student-centered instruction model that focuses on measuring student performance through outcomes. Outcomes include knowledge, skills and attitudes. Its focus remains on evaluation of outcomes of the program by stating the knowledge, skill and behavior a graduate is expected to attain upon completion of a program. The students are evaluated for all the required parameters (Outcomes) during the course of the program. The need for OBE was necessitated as India became the permanent signatory of Washington Accord in 2014. The accord by virtue of its enhanced employability forces Indian engineering institutions to follow OBE model. The outcome based education quantifies the programme objectives (such as Bachelor programme) and programme outcomes at the bachelor level. Further if someone is doing a course in Economics the outcomes of bachelor programme having a course in economics is well specified, measured and progress monitored. A course curricula has to be carefully designed, delivered and assessment made in such a manner that programme and course outcomes are fulfilled. Hence the whole teaching learning process is

subject to quantification and control through monitoring. Such is the neo liberal policy design where the scope of freedom of inquiry is minimal. The autonomous space of teacher in engagement with the idea is restricted.

In a neo liberal design of higher education policy in India, as noted above, the social science research itself is subject to neo liberal design. Research is so directed and monitored that an autonomous space of researchers is severely restricted. Freedom of inquiry of researchers is taken away. Research is directed to fulfill market oriented policy. The social science research becomes sub ordinate to policies that favour privatization. Whatever connect that exists between research and policy goes to support it rather than defy the state. However, a sizeable number of social scientists do show the courage to ask questions by bringing to the fore the field reality in terms of understanding the impact of neo liberal policy of the state. They do create an opposing discourse and influence the policy.

V.Social Science Research Policy in India: A New Direction

IMPRESS: There are two modes of funding research by ICSSR in humanities and social sciences. They are sponsored and responsive research. The mode of funding under responsive research allows autonomy to researchers as these proposals are driven wholly by what the applying principal investigator wants to research, irrespective of any consideration of impact. Assessment of responsive research is against general criteria. Assessment is not against how well it meets a pre-defined specification for a narrow research area. Hence sponsored research may promote basic as well as applied knowledge. In the case of sponsored research the criteria of selection may be factors such as research need in terms of regional variation. For example, if any researcher from north east states want to research the rich flora and fauna of north east, it will be encouraged. The criteria could be whether any research area is underfunded or overfunded. For example, the research area on ancient systems or indigenous studies may be promoted under sponsored research. There is also attempt to know whether researcher from a particular community is represented or not. In fact, inclusive research community is encouraged under sponsored category of research. Hence in the case of responsive research there is autonomy to the researcher whereas in the case of responsive research autonomy is subject to the needs of socially relevant research.

Impactful Policy Research in Social Science (IMPRESS) has been introduced as a new scheme in 2018 by the Ministry of Human Resource Development. The scheme is being implemented by ICSSR. The scheme has a sanctioned budget of Rs. 414 cr. 11 thematic and 106 sub thematic areas have been identified. The new scheme of IMPRESS has not substituted the older modes of Responsive and Sponsored Research Projects, as per the information on ICSSR website. However, no responsive and sponsored research projects have been awarded in the year 2018-19 and proposals for research projects and seminars under IMPRESS have

been invited and their scrutiny is being conducted. It shows that impactful policy research only is going to stay in future and sponsored and responsive modes of research funding might disappear in the future. It is important to note what implications will have with the new modes of research funding under IMPRESS.

With respect to the selection criteria under IMPRESS, it is blind peer review through a computer generated referral system. All the short-listed scholars would then be invited for a power point presentation before the expert committee at the ICSSR. The recommendations of the Expert Committee would then be placed before the Steering Committee for its final decision. The system of review of the proposal in the case of sponsored and responsive research was through the committee of experts who will evaluate the proposal on a much broader criteria such as the addition to the knowledge, research gap and whether research questions address those research gaps and of course the social relevance of the research area.

What will be implications of shift in the mode of selection of proposals under old and new modes of selection of research proposal?

In the old mode of selection process through a committee of experts there may be subjectivity in the selection process and proposal may sometimes be passed on considerations of need, merit and a combination of both. While the relevance of the proposal is also an important criteria in the selection, the impact factor may not always be important consideration in the selection of research proposal. It might also be true that the quality of research output was not always satisfactory as inclusive research agenda was applied in the selection process. However, the selection under responsive mode would be based on considerations of individual credential and their specialization in the area of research. Hence the quality of research proposal and output may remain high. There is no doubt that there are issues in the selection and quality of research and their output in the sponsored research should be taken care of by a rigorous process of screening, mentoring, appraisal during the course of research work through blind peer review process. There is an inefficiency in the selection process of proposal and as a result the quality of research output is adversely affected. In spite of this it has the merit that it provides opportunities of research to a relatively large segment of teachers and researchers.

However, the new mode of impactful research under IMPRESS is a complete shift in which applied aspect of research assumes importance. The selection of research is made rigorous. This is certainly a welcome step. However, research agenda guided by impact will adversely affect the generation of basic knowledge. Applied knowledge may become very narrow in focus unless the basic knowledge advances. In the selection under IMPRESS, the impact on society will become important. A new mode of funding under IMPRESS, however,

shall promote applied research. Besides, new mode of funding under IMPRESS may be competitive and hence opportunity to large segments of teachers and researchers may not exist. Hence it may be said that IMPRESS is an example of a shift towards research funding being guided by impact and it will create competitive environment of research. In the opinion of the author, old mode of funding and selection of proposal suffered from selection bias and perhaps not always high quality of research output could be observed. However, some good amount of basic and relevant knowledge could be created. In the new mode of funding the applied knowledge will be created. The most fundamental difference may be that old mode allowed the questioning of some policy both in terms of design and implementation. However, new mode of impactful funding may not allow the questioning of the policy as much as the old mode as the autonomy of researchers under responsive mode will hardly exist in the new scheme of things.

IMPRINT: MHRD has drafted a new and catalytic scheme called Impacting Research Innovation and Technology or IMPRINT. IMPRINT is a first-of-its-kind Pan-IIT and IISc joint initiative to develop (a) New Education Policy, and (b) Roadmap for Research to solve major engineering and technology challenges in selected domains needed by the country. There are ten domains representing areas. There is a claim that it will promote ‘inclusive growth and social justice’. In the first phase policy document for pursuing engineering challenges and in the second phase real engineering pursuit will be undertaken. The approach is to develop policy for inculcating scientific temperament and innovation skill and then a research roadmap for technology preparedness. IIT Kanpur is selected as national coordinator which will co-ordinate different domains each in charge of various IITs and IISc. The focus is not on research for knowledge creation but for its translation to develop new technology for national progress and societal good. This is also envisaged to create an ecosystem that will enable the industry depend on academia for technology and promote entrepreneurship. There are 142 projects under implementation. In stage 2, IMPRINT-2 has been approved by Government of India (GoI) with a revised strategy under which, this national initiative will be jointly funded and steered by MHRD and Department of Science and Technology (DST). The faculty member from centrally funded higher and technical institutions is permitted to lead as the Principal Investigator. About 425 projects with up to Rs 2 crore budget will be supported under IMPRINT 2. The total cost of the project under IMPRINT is kept at Rs. 313.27 crores.

CII Industrial Innovation Awards: India’s largest innovation challenges are jointly promoted by the CII and Department of Science & Technology. They were first instituted in 2014 to identify and celebrate innovation of Indian enterprises across industry segments and sectors. The focus of the Awards is on firm level Innovation capability building and to encourage Indian firms to remain competitive in domestic as well as in global markets. The

Awards evaluates all kind of new processes, products, services, technologies, and other type of innovations that have the ability to fuel growth within the Industry. It also assesses new ideas and approaches along with tangible results. These Innovation Awards have also been instrumental in increasing business opportunity for winning firms within Indian industry. (CII Industrial Innovation Awards at <https://www.innovationawards.ciiinnovation.in/about-the-award.php>)

Smart India Hackathon 2019: It is a nationwide initiative to provide students a platform to solve some of pressing problems we face in our daily lives, and thus inculcate a culture of product innovation and a mindset of problem solving. The last edition of the hackathon saw over 5 million+ students from various engineering colleges compete for the top prize at 35+ locations. In SIH 2019, the students would also have the opportunity to work on challenges faced within the private sector organizations and create world class solutions for some of the top companies in the world, thus helping the private sector hire the best minds from across the nation.

The recent shift in funding research has a clear intention to promote innovation and technology to create an impact in the social lives of the people. Hence it may seem to have been induced by some purpose. However, the autonomously driven research agenda of researchers, blue sky research, may not survive under the present circumstances. It may be difficult to say whether research will break the frontiers of knowledge. Small researches will have smaller impact if it is unaccompanied by basic knowledge generating research. It may be noted that research culture needs to be spread in all universities and colleges with liberal funding. If it is restricted to some elite technology institutions and research project is restricted to smaller amounts then spread of science and technology will be severely limited. It is important to note that universities and institutions with sufficient instrumentation and infrastructure facilities and autonomously driven projects allow to systematically work towards some research agenda which may yield results in the medium and long term. Hence emphasis on instrumentation, systematic research agenda and continuity of the pool of researchers with guaranteed fellowship is necessary. If the autonomy of researchers is taken away and impact driven agenda is imposed then perhaps a short sighted approach in the development of research may not serve long term interests.

Above example of science and technology was presented because the social science research also grows only over a long period when pool of social science researchers from across various disciplines work on some research problem or other. Instrumentation may not be important in social science research, however, process of knowledge generation is the same in social and natural sciences. Systematic, continuous effort with a dedicated pool of researchers having secured funding is necessary rather than an adhoc purpose oriented research with a temporary project staff. With all the international experiences noted above, it may be

said that social science research guided by neo liberal policy of impact with temporary research project staff and having discontinuity and not so dedicate pool of researchers may perhaps serve one research agenda at a time. Such research agenda may not adequately examine policy in the laboratory of social experiment. It will follow rather than examine the policy.

VII. Conclusion

Olsen (2016) notes that neo liberalism leads to displacement of public models of governance in favour of individualized incentives and performance targets. It aims at market competitiveness and allows stringent conceptions of accountability and monitoring across the higher education sector. In research it has created a new discourse on impactful research in India and abroad. It is important to note that research grant is not only competitive but that it passes through highly centralized model of governance. The proposal scrutiny passes through various rounds of scrutiny. The criteria of rejection of a proposal is not revealed and suffers from veil of secrecy. In competitive research grant no second opportunity is provided to researcher to revise the proposal. The international research results of neo liberal models was reviewed.

It has been noted above that most current trend of social science research in India suffers from neo liberal model of governance. As a result there are new research funding schemes that aim to promote impact and assessment with a view to improve efficiency in research funding and productivity of research output. The implication of this trend was analyzed. It was noted that if the purpose of social science research is to have connect to the policy then it must be autonomously driven so as to present a critique of policy which is often guided by elite discourse favouring the current market and political ideology. An autonomously driven research agenda while getting the field reality may enable a counter discourse intervening state mandated policy agenda enabling sound ground for policy intervention. It was noted that social science research is not driven by narrow interest to support empirical evidence in favour or against through policy evaluation studies. This narrow interest being encouraged through the new model of governance of research funding is not the purpose of social science research. The rationale of social science research is the autonomously driven research capable of making a critique of policy. This requires the liberal research funding to support a continuous and committed pool of researchers in universities and colleges and an ecosystem of research that promotes inter-disciplinarity, facilitation and infrastructure support free from bureaucratic hurdles.

References

- Carter, C. (1972). The efficiency of Universities. *Higher Education*, 1(1), 77-90
- Daza, S.L. 2012. Complicity as infiltration: The (im)possibilities of research with/in nsf engineering grants in the age of neoliberal scientism. *Qualitative Inquiry* 18, no. 9: 773–86. Evans, M. 2005. *Killing thinking: The death of the universities*. London: Continuum.
- DFID, 2011, *Social Science Research in India A Mapping Report*, DFID South Asia Research Hub September 2011 available on https://assets.publishing.service.gov.uk/media/57a08abee5274a31e0000754/60911-MappingReport_social_science.pdf
- Government of India. 2011. Report of the committee constituted by the Government of India to review the functioning of ICSSR. New Delhi: Ministry of Human Resource Development available on http://mhrd.gov.in/sites/upload_files/mhrd/files/document-reports/Final-Report-ICSSR.pdf.
- ICSSR. 2007. *Restructuring the Indian Council of Social Science Research, Report of the Fourth Review Committee*. New Delhi: ICSSR.
- Kuldeep Mathur, James Warner Bjorkman, 2009, *Policy-making in India : who speaks? who listens?* Har-Anand Publications, 2009, New Delhi
- Leathwood, C. and Read. B. (2013). Research policy and academic performativity: compliance, contestation and complicity. *Studies in Higher Education*, 38(8), 1162-1174 DOI: 10.1080/03075079.2013.833025
- Mark Olssen, 2016 *Neoliberal competition in higher education today: research, accountability and impact*, Volume 37, British Journal of Sociology of Education, 2016
- Musico, A., Quaglione, D., Vallanti, G. (2010). Does government research funding to universities substitute, complement or leverage Industry funding. [Working paper No. 06.] Retrieved from <https://www.researchgate.net/publication/241761670>
- Nisar, M. A. (2015). Higher education governance and performance based funding as an ecology of games. *Higher Education*, 69 (2), 289-302.
- Pritchard, R. (2005). The Influence of Market Force Culture on British and German Academics. *Comparative Education*, 41 (4), 433-454
- Slaughter, S., and L. Leslie. 1997. *Academic capitalism: Politics, policies and the entrepreneurial university*. Baltimore: John Hopkins University Press.
- Thorat S and Verma S. 2017. *Social Science Research in India Status, Issues and Policies*. Oxford University Press. New Delhi.
- Thornton, M. 2009. Academic un-freedom in the new knowledge economy. In *Academic research and researchers*, ed. A. Brew and L. Lucas, 19–34. Maidenhead: SRHE and Open University Press.

Vaidyanathan, A. 2008. Fourth review of ICCSR: An overview. *Economic and Political Weekly* February 2, pp. 21-24.

Wise, L.R. and Agranoff, R. (1991) *Organizational Characteristics and Productivity Measurement in Research Organizations*. *Public Productivity & Management Review*, 15 (1), 1-17.

Wood, F. (1990). *Factors Influencing Research Performance of University Academic Staff*. *Higher Education*, 19 (1), 81-100.

Young, M. (2015). *Competitive funding, citation regimes, and the diminishment of breakthrough research*. *Higher Education*, 69 (3), 421-434

A STUDY ON FORESTRY AND SUSTAINABLE LIVELIHOOD WITH SPECIAL REFERENCE TO SIMLIPAL NATIONAL PARK, ODISHA

SHRADHA AGARWALLA¹ AND DEBOLINA SAHA²

Abstract

Forest coverage is essential for maintaining ecological balance as well as for meeting the livelihood needs of the people residing near the forest area. Livelihood is simply a means of making a living, which encompasses people's capabilities, assets, income and activities required to secure the necessities of life. Livelihood is sustainable when it enables people to cope with and recover from shocks and stresses. So the concept of sustainable livelihood is closely related to the concept of sustainable development which attempts to ensure sustainability in economic, social as well as ecological sense. It gives emphasis on fairness of distribution of resources within the generation and across the generations. In this context, the present paper attempts to assess the livelihood of the people who are dwelling in and around the Simlipal National Park, Odisha. Simlipal National Park has been designated a Tiger Reserve in 1956, and is declared as a National Park in 1980 with total area of 845.70 km². It is added as a Biosphere Reserve by UNESCO in 2009. Hence this Park has national as well as global significance. To study the livelihood pattern and thus forest dependence, we have considered four blocks- Bisoil, Bangripasi, Jashipur, Shamakhunta of this region. It has been revealed from our field survey that forest is the mainstay of livelihood for the forest-fringe dwellers in and around the reserve. Non Timber Forest Products (NTFPs) have direct consumptive values as well as exchange values and thus NTFPs are treated as the means of livelihood of the people residing here. Further, the forest dwellers being uneducated as mostly rely on NTFPs, this over dependence on forest products often causes forest degradation or forest depletion. This type of loss of biodiversity has serious effect on global climate change and affects the goals of sustainable development. Afforestation of some kind of species like, Eucalyptus and Acacia, can not be a solution in this regard as it usually results in good canopy cover but side-by-side low or no undergrowth. This paper is an attempt to analyze the issue of preservation of forest resources and thus to maintain environmental sustainability considering the practices of forest dwellers in and around Simlipal National Park. Further, this study is also an attempt to throw light on the ways which can reduce economic as well as social vulnerability in the study area.

¹ Research Scholar, Department of Economics, Rabindra Bharati University

² Assistant Professor, Department of Economics, Rabindra Bharati University

JEL Classification: Q20, Q23, Q27, Q56.

Key Words: Sustainable Development, Deforestation, Environmental Degradation, Inclusive Growth, Livelihood

1. Introduction:

Forest is a lifeline of all the living beings on the earth. Forest coverage is essential for sustenance of life as well as maintaining of ecological balance in several ways. It provides sustainable needs of the forest dwellers by supplying mainly Non-Timber Forest Products (NTFPs) and sometimes (under the Joint Forest Management agreement) sharing the return of timber from the felling of matured trees by the government.

The concept of sustainability was originally coined in forestry. The word *Nachhaltigkeit*, the German term for sustainability, was first used in this connection in 1713 (Wilderer, 2007). The concerns regarding preservation of forest resources were in the mind of the people of the ancient age also as they could foresee the extinction of resource base in future due to overuse at that point of time. Thus scarcity of resources might be a central concern and this view has been reflected in the research papers of several economists like, Ike (1984) & Fukuyama (2008). In connection with the concept of sustainability, a famous example was the work of Thomas Malthus, who published his theory about looming mass starvation (due to the inability of available agricultural land to feed an expanding population) in 1798. Then a theory on the optimal rate of exploitation of non-renewable resource which is still relevant today was formulated by Harold Hotelling, an American economist, in 1931. After that a milestone in capturing the attention of global public policy was the report of the Club of Rome, which predicted that many natural resources crucial to our survival would be exhausted within one or two generations (Meadows, Rengers & Behren, 1972). Finally, the Brundtland Report of the UN World Commission on Environment and Development adopted the concept of sustainability and gave it the widespread recognition as it enjoys today. It had defined “sustainable development as development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. In this regard sustainable forest management projects seek to decrease forest degradation and deforestation, and contribute to poverty reduction and other socio-economic benefits, e.g., through fostering sustainable production practices and improved access to forest value chains and markets (World Bank 2016).

The concept of sustainable livelihood is important as this approach helps to eradicate poverty and thus improves the livelihood of common people. Sustainable livelihood is that which can cope with and recover from stress and shocks, maintain or enhance human capabilities and assets, and also provide opportunities for the next generation to live in a sustainable manner.

There are several social, economic and demographic factors like, income, education, sex, religion, age, assets and land holding, household size, dependency ratio etc which determine the long term dynamics of socio-economic-demographic system of a community and thus help to understand the pattern of livelihood of any community. In this paper our study area is Simlipal forest region, Odisha; which is located in the northeast of India. The Simlipal Biosphere Reserve lies within two biogeographical regions: the Mahanadian east coastal region of the Oriental realm and the Chhotanagpur biotic province of the Deccan peninsular zone. In this paper we attempt to analyze the extent of forest dependency of the people residing in the study area considering existing livelihood opportunities; several socio-economic-demographic factors which constitutes livelihood of that community and thus play a crucial role in determining forest dependency. It is expected that this type of initiative may reduce social vulnerability and resilience and thus may help in maintaining sustainability from the social and economic angles. Further it may also help to motivate the forest dwellers to conserve forest resources for future use. In this way ecological sustainability may also be achieved.

Objectives:

The objectives of the present study are as follows:

- To focus on the present livelihood practices of the households in the study area;
- To identify the factors that determine forest dependency of the dwellers near by the forest area;
- To analyze the level of association between forest dependency and the socio-economic-demographic factors like, income, age education, household size, scope of livelihood diversification etc;
- To focus on the scope for future development in the study area.

The paper consists of five sections. In the first section, along with the background of the study, objectives are specified. Second section discusses a brief review of literature indicating the significance of the study. The third section represents methodology and is followed by the section of data analysis and discussions. Finally, in the last section some conclusions are made from the study to focus on the scope for future development in the study area.

2. A Brief Review of Literature and the Significance of the Study:

To conduct the study, some reviews have been done according to the research plan. Ghosal (2011), in his paper has studied the importance of non-timber forest products in native household economy in the dry-deciduous forests of Purulia, Bankura and West Midnapur districts of West Bengal, India. Suryaprakash (1999), in his report has attempted to throw light on inter-sectoral linkages in the tribal economy with special reference to NTFPs in the

Western Ghats region of Karnataka. Chopra and Dasgupta (2008), have studied the extraction of Common Pool Resources in four states in India and their paper tests for the hypothesis by distinguishing non-timber forest produce for sale and for self-consumptions, using the data of National Sample Survey Organization (NSSO) for a sample of 78,000 households in Bihar, Karnataka, Madhya Pradesh and Maharashtra. Sarkar(2011), in his thesis has conducted a study in Southern Forest Division of Bankura District to get an idea of survival needs and socio-economic dynamics of the households; and to analyse the impact on common property outcome. Behera and Dash (2013), in their paper have made a comparative analysis, in 120 villages located in the core and in the buffer as well as transitional zones of the Simlipal Biosphere Reserve, concerning the multiple factors which determine the extent of forest dependency. So in all the papers researchers are talked about the importance of forest products in the daily needs of forest dwellers which often causes forest degradation or depletion.

In our paper we attempt to focus on the issues related to several existing livelihood opportunities which the people in the study area possess and the demographic as well as socio-economic factors, which play significant roles in determining the pattern of livelihood and thus forest dependency in this regard. It is expected that if profitable alternative livelihood opportunities are called for, then this will help in raising the present livelihood standard; better conservation of natural resources and thereby may aim at reducing economic, social and environmental vulnerability.

3. Methodology:

3.1 Location and Description of the Study Area:

The FAO report, Global Forest Resources Assessments (GFRA), 2015, states that over the past 25 years forest area has been reduced from 4.1 billion ha to 4 billion, which is a decrease of around 3.1 percent. In contrast to it, the 15th biennial India State of Forest Report (ISFR), 2017, shows that an increasing trend in the forest and tree cover. In this respect while coming to the state of Odisha, India; the report shows that there is a hike in the forest cover in Odisha by 0.57 percent from the previous assessment period, 2015 and thus the present forest cover in Odisha is 32.98% of the state's geographical area.

In our study we have chosen some selected areas of Simlipal National Park region, Odisha. The Simlipal National Park is located in Mayurbhanj district of Odisha between 86° 062 to 86° 362 N longitude and 21° 312 to 22° 022 N latitude in the biotic province of Chhotnagpur plateau Deccan Peninsula. It was designated a 'Tiger Reserve' in 1956 and brought under the National Flagship Conservation Program, 'Project Tiger', in 1973. It was declared as a Wildlife Sanctuary in 1979 with designated area of 2750 km². Further it was declared as a National Park in the year of 1980 with total area of 303 Km² and after that the area of National Park was increased to 845.70 Km² in 1986. Besides, 'Project Elephant' was launched

at Simlipal in 1992 as a conservation strategy for elephant and its habitat and over 7000 km² was a part of it. In Simlipal, the reserve's core zone area of around 1194.75 km² has been accorded National Park status by the state government and the buffer zone area is around 1555.25km². The Simlipal Tiger Reserve (STR) along with a 'transitional zone' of 2250 km² has been included as a part of the World Network of Biosphere Reserves by UNESCO in 2009. The STR, is a rare Protected Area as it has been declared as Biosphere Reserve, Wildlife Sanctuary, and Designated National Park, and runs two flagship conservation programmes of the federal government, namely 'Project Tiger' and 'Project Elephant'

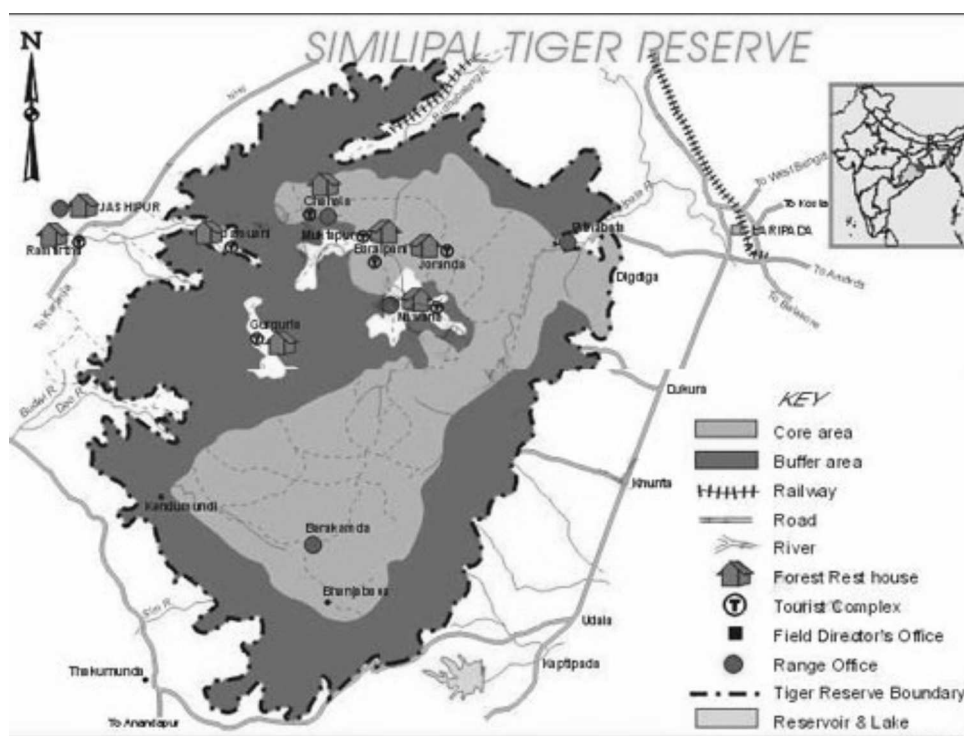


Figure: 1

Simlipal being the sixth largest Biosphere Reserve and a major Biodiversity Hotspot in Eastern India with rich flora and fauna owes its significance in biodiversity map of India as well as captures concern of researchers to protect the resource base. Simlipal was named after Simili (red silk cotton) trees which are in abundance in the forest. Besides the rich floral and faunal biodiversity, this region is the home of indigenous tribals residing over there since ages considering the forest as their home.

3.2 Demographic Information of the Study Area:

The entire Simlipal forest area falls under the scheduled Vth district of the state, known as Mayurbhanj district. Simlipal Biosphere Reserve (SBR) comprises of three zones: core zone, buffer zone and transitional zone. There are 6 villages inside the Critical Tiger Habitat (Core), out of those 4 villages are the revenue villages and 2 villages are the settlement villages. About 65 villages are situated in the buffer zone of Simlipal Biosphere Reserve. All the villages of the Biosphere Reserve falls under 8 Community Development (CD) Blocks, while the 65 villages of Sanctuary area comes under the jurisdiction of Bangriposi, Bisoi, Jashipur and Thakurmunda CD Blocks. According to census 2011, the total population in buffer villages is 17200. The transitional zone of biosphere reserve has 1200 villages.

3.3 Data Collection and Sampling Procedure:

Our research study is mainly based on primary data though we have collected some secondary data for acquiring overall information of the study area. Purposively we have chosen Simlipal National Park of Mayurbahnj District as our study area a sit has national as well as global significance. The villages were selected purposively (non probable method) based on the list produced by Simlipal Tiger Reserve (STR). A well designed Questionnaire was prepared to collect primary data after having Focus Group Discussions in the villages. The questionnaire was administered through direct personal interview in order to collect data at the household level. Moreover, the questionnaire was prepared as per the requirement of the study encompassing the demographic characteristics and socio-economic profile of the households, like, age-sex-religion composition, total income, level of literacy, occupational structure, asset and land holdings, forestdependency, role of NGOs and their perception regarding environmental aspects etc. Around 162 households from 7 villages had been interviewed residing both in buffer and transitional zones. While choosing households, we have used random sampling method where the sample has the population characteristics and is based on the objectives of the study. We have done the whole analysis at household level.

3.4 Methods:

To fulfill the objectives of our study we have analysed data constructing several correlation matrices between forest dependence and the factors which may influence forest dependence. In this regard, several socio-economic-demographic factors of the households which determine the pattern of livelihood of the forest dwellers and thus help to determine the extent of forest dependency have been taken into consideration.

Further, as any positive change in the livelihood pattern may reduce forest dependency, so it is very much necessary to study the present livelihood pattern considering several existing livelihood opportunities opened to the people in the study area. In this context, we have

constructed livelihood diversification index. To measure livelihood diversification, we have used the inverse of Hirschman-Herfindahl (H-H) index which shows the relative spread of activities in contributing total income of a household. Forestry activities being seasonal in the study area, the members of a particular household always remain engaged in several works all throughout the year. So it is justified to use this type of index which can truly capture the livelihood diversification. Inverse of **Hirschman-Herfindahl (HH) index** = $1/\sum A_{ij}^2$, where A_{ij} refers to the contribution of each activity 'j' to household's aggregate income for the 'i'th household. As H-H index is a measure of concentration, so its inverse is supposed to indicate the relative spread of activities in contributing to total income. Hence, the greater the value of inverse of H-H index is, the greater will be the measure of diversification and vice versa. It is expected that livelihood diversification will lead towards lessening of forest dependency and thus may help in maintaining ecological balance.

4. **Data Analysis and Findings:**

In our study we have considered four blocks- Bisoi, Bangriposi, Jashipur and Samakhunta, which are situated in the buffer as well as in the transitional zones of Simlipal Biosphere Reserve. It is revealed from the study that, the people other than the Jashipur block are mostly dependent on forest resources for their livelihood though the nature of forestry activities is seasonal. If the people residing in the study area acquire any kind of provisioning service from the forest, then they are treated as forest dependent people. In the following table, the extent of forest dependency is shown for the four blocks.

Table: 1

Forest Dependency

Forest Dependency		
Blocks	No of HH	Dependence
Bangiriposi	41	36
Bisoi	44	32
Jashipur	42	7
Shamakhunta	35	32
Total	162	107

It has been seen that agriculture is the prime source of livelihood other than forestry for most of the people residing in and around SBR. People who have agricultural land, they get paddy for self consumption and this saves them from deprivation. In this context the block wise livelihood options adopted by the people are discussed below.

In the **Bangriposi Block**, the villages come under buffer zone with the average distance of 35 km from Bangriposi town. Here most of the village population, of around 72.26 percent, rely on NTFPs for their livelihood and that is followed by wage labour which constitutes 69.54 percent. Then 59.66 percent of people depend on agriculture for their subsistence, which is followed by livestock rearing of around 19.32 percent. The other sources of livelihood are the employment provided by the forest department (FD), migration and income derived as an ASHA worker and AWC. The following pie diagram represents the scenario.

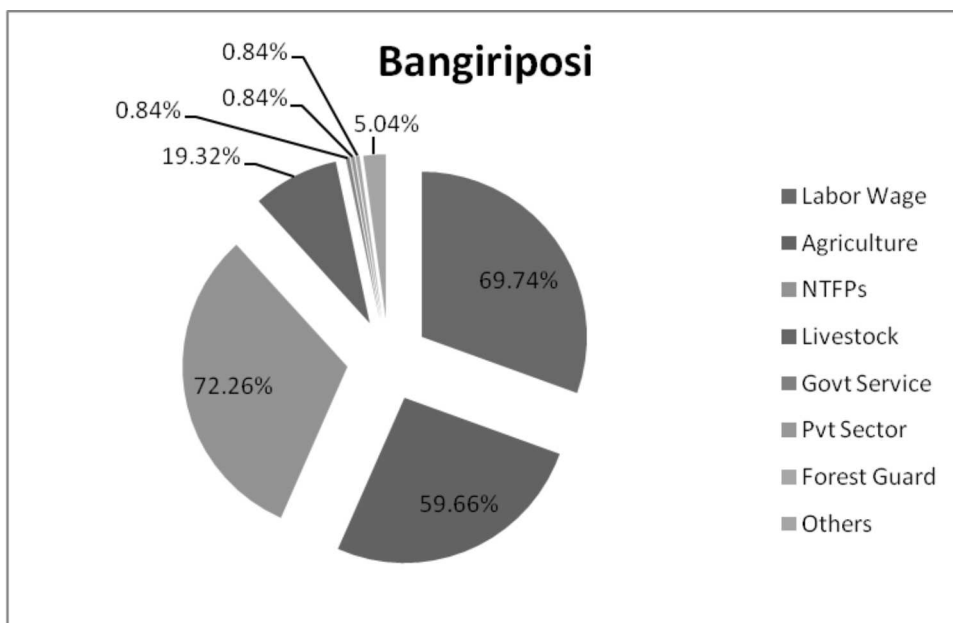


Figure: 2

In **Jashipur Block**, the villages come under Protected Area (Buffer zone). The average distance of the villages from the town Jashipur is 40 km. The pathway to the town is hilly terrain, which increases complexities of people living in it. The people residing here collect non-timber forest products for direct consumption. Mostly the people remain engaged in agricultural activities for self consumption as the market is not accessible and this reduces forest dependency. The following pie diagram reflects that 64.76 percent of people of this block rely on agriculture for their livelihood which is followed by wage labour and that constitutes 62.85 percent. Apart from agriculture and wage labour, 17.14 percent of population earn their livelihood through sale of livestock. The other sources of livelihood are the employment provided by the forest department (FD) specifically, the Green Brigade (Sabuja Vahini) migration and the income derived as an ASHA worker and AWC.

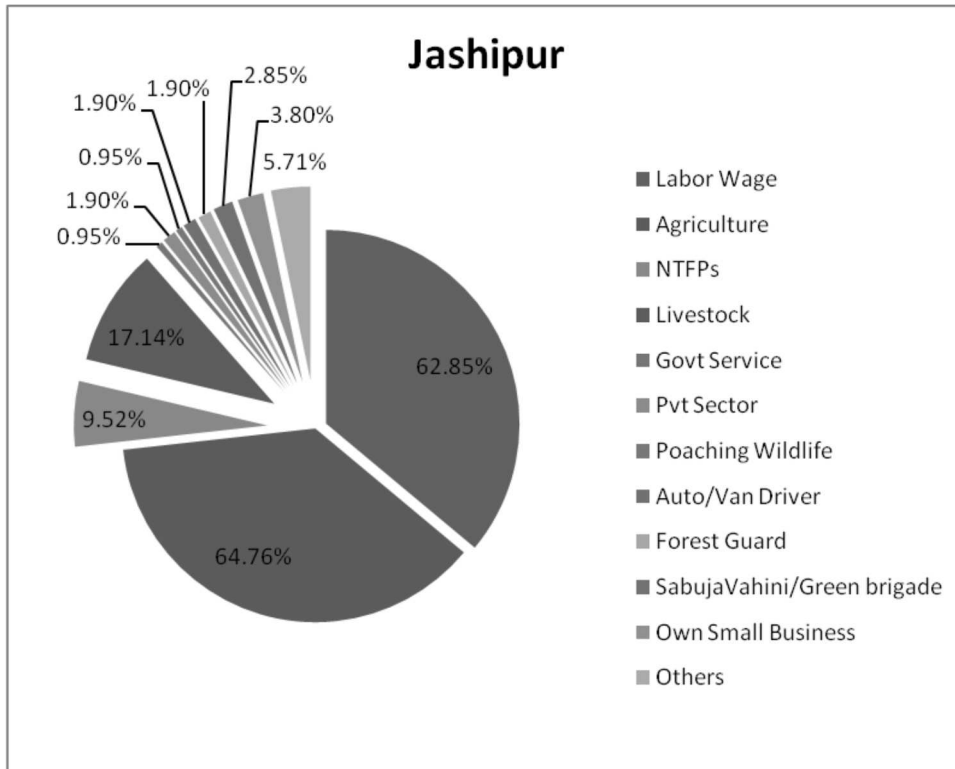


Figure: 3

In **Bisoi Block**, the villages come under buffer area but the average distance of the villages from the town is just 10 km which results in market accessibility and other work opportunities. Hence most of the people are wage labour here. The following pie diagram reflects that in this block of around 81 percent of people earn as wage labour and that is followed by of around 67.76 percent of people engaged in agricultural activities. Then 55.37 percent of population earn their livelihood through collection and sale of NTFPs. The other mode of earning are through livestock rearing which is around 13.22 percent and the employment provided by the forest department (FD).

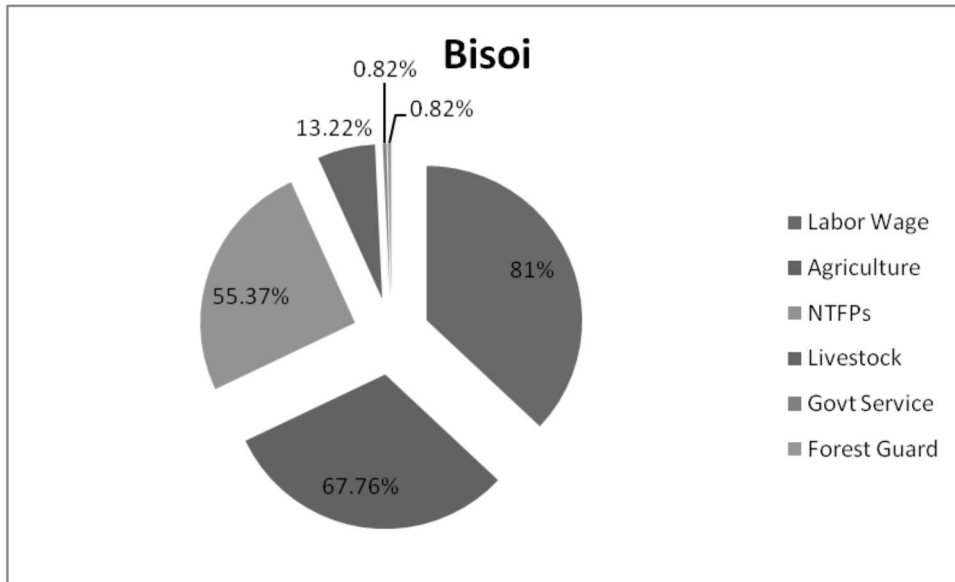


Figure: 4

In **Shamakhunta Block**, the villages come under the transitional zone. Most of the population being illiterate here, remain engaged as manual labor and without having alternative livelihood opportunities, they mostly rely on NTFPs for their means of survival. The largest share of the population of around 71.13 percent is engaged in collection of NTFPs and that is followed by 61.85 percent of people as wage earner. A sizeable share of population is engaged in livestock rearing of around 18.56 percent and only 11.34 percent are engaged in agriculture. The people residing here need to adopt number of livelihood options as nature of forestry activity is seasonal. The following pie diagram represents the true picture of this block possessing several livelihood opportunities.

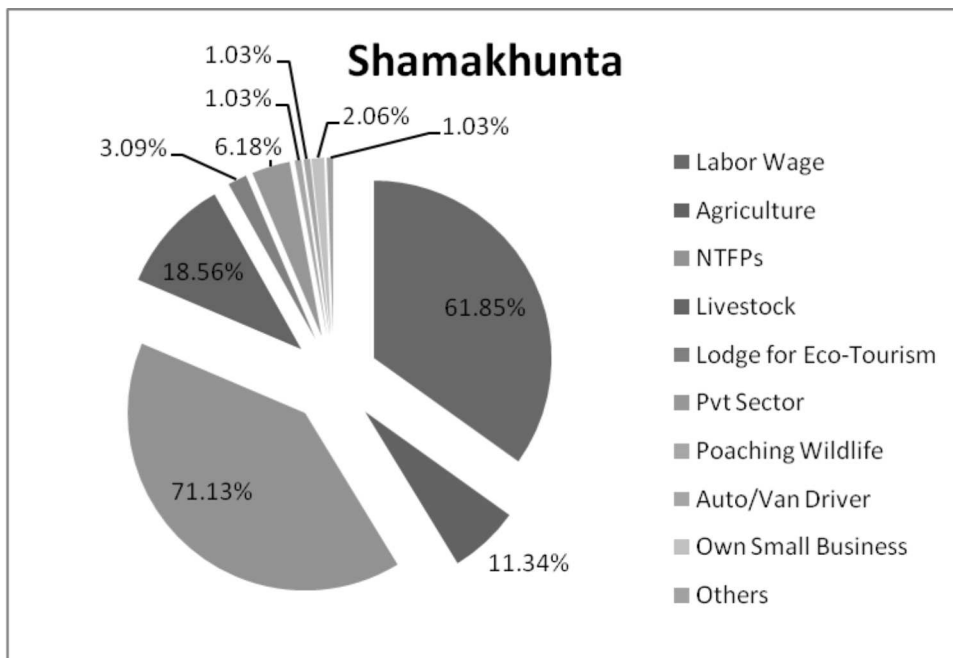


Figure: 5

It is expected that livelihood diversification may reduce forest dependence. Hence considering inverse of Hirschman-Herfindahl (H-H) index we have measured livelihood diversification at the household level in the study area and then the correlation matrix is formed between livelihood diversification and forest dependence which is shown below.

Table: 2

Correlation Matrix between Livelihood Diversification and Forest Dependence

	Forest Dependence	Livelihood Diversification
Forest Dependence	1	-0.474
Livelihood Diversification	-0.474	1
N=162 Sig(2-tailed) = .009 Correlation is significant at the 0.01 level (2-tailed).		

The Pearson's r for the correlation between the forest dependence and livelihood diversification in our study is -0.474. It signifies a negative relation between them. This means more the livelihood diversification is; the less will be the forest dependence.

Though livelihood opportunities other than forestry activities play a crucial role to measure forest dependency but, there are certain other demographic and socio-economic factors, which may influence the forest dependence.

Composition of age and sex are the crucial demographic factors which influence forest dependency. The surveyed 162 households have a total population of 742 (considering the family members). The figure below shows the block wise distribution of male and female, which represents a healthy (M:F=53.10:46.90) and more or less the same sex ratio.

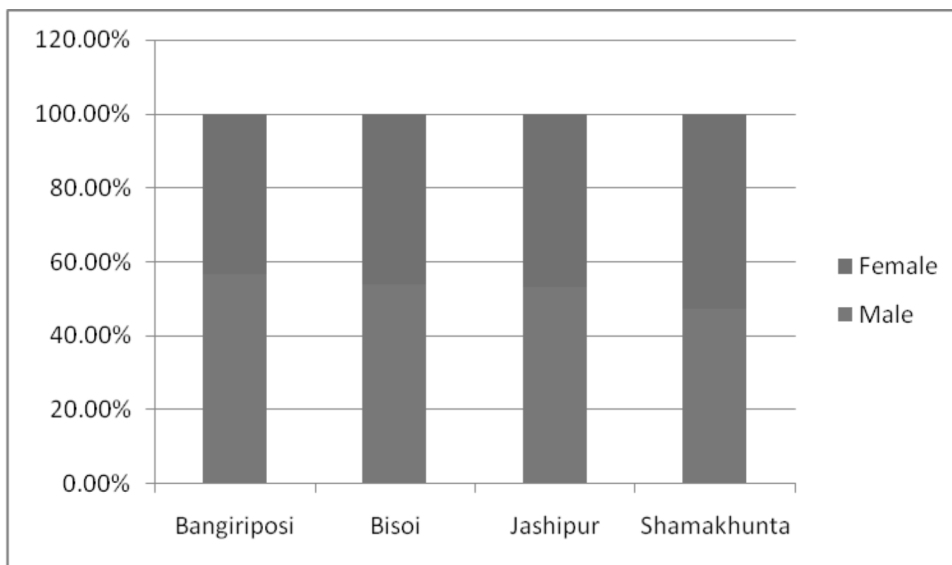


Figure: 6

Hence sex composition does not have any significant effect in determining forest dependence but, while coming to average age of the household and its relation to forest dependency in the study area, we find the following correlation matrix.

Table: 3

Correlation Matrix between Average Age and Forest Dependency

	Forest Dependence	Average Age
Forest Dependence	1	-0.26
Average Age	-0.26	1
N=162		
Sig(2-tailed) = .738		

The Pearson's r for the correlation between the variables of forest dependence and average age in our study is -0.26. It is clearly reflected from the above matrix that, larger the average

age is; with the increase in skill and thus the scope of other livelihood opportunities, less will be the dependence on forests.

The several social factors which influence forest dependency of the forest-fringe dwellers may be composition of caste, household size, dependency ratio (earning members/total no of members in a household), house type and basic amenities what they possess, level of literacy etc.

The following figure shows the dominance of scheduled tribe (ST) in the village. Out of the 162 households, around 146 households belong to ST community and 6 households belong to SC community.

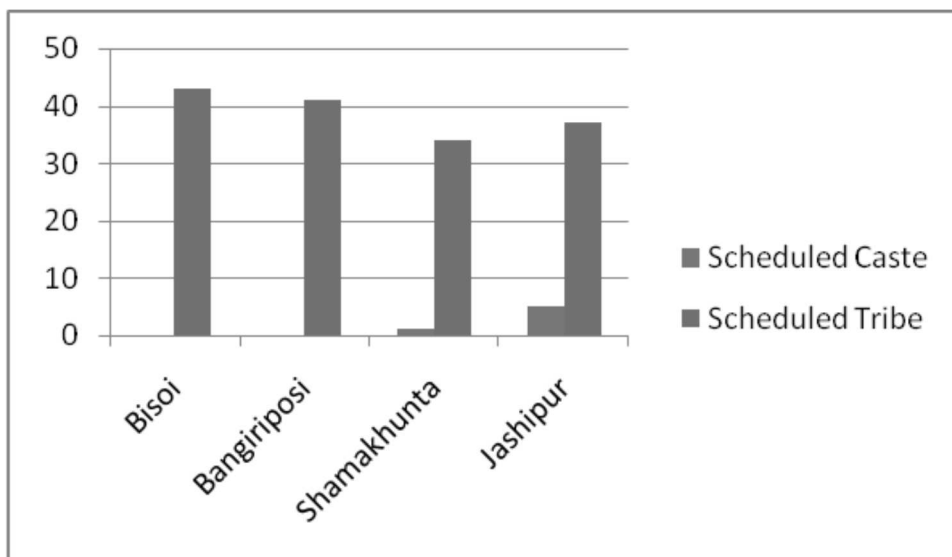


Figure: 7

In the study area as most of the people belong to ST, so caste composition is not regarded as a significant factor to determine forest dependency.

While coming to the other factors we find that an important factor is the size of the household which determine forest dependency. The following figure shows the average household sizes in the four different blocks with Bangiriposi block as the highest average household size.

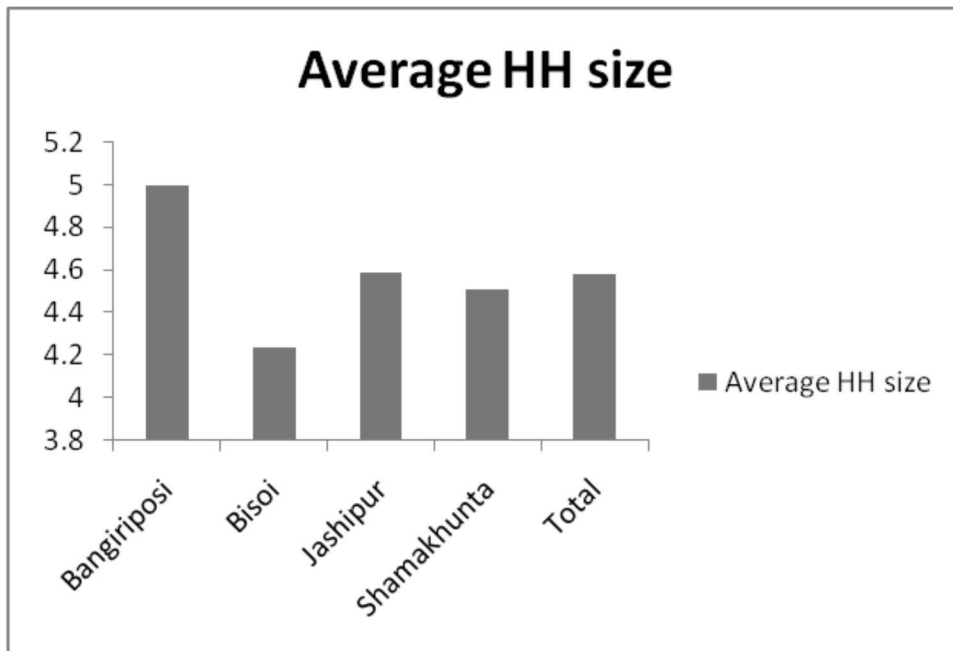


Figure: 8

In the following table we have formed a correlation matrix between HH size and forest dependence considering the four blocks altogether.

Table: 4

Correlation Matrix between HH Size and Forest Dependence

	Forest Dependence	HH Size
Forest Dependence	1	0.113
HH Size	0.113	1
N=162		
Sig(2-tailed) = .256		

The Pearson’s r for the correlation between the variables of forest dependence and HH size in our study is 0.113. This means that changes in HH size directly affects forest dependence and larger the HH size, more is dependence on forests for survival.

We have also calculated dependency ratio in this regard as it truly captures the fact that more number of dependent members in a household drives the society towards much degradation of forest resources to meet the daily needs. The relation between dependency ratio and forest dependence is shown in the following correlation matrix.

Table: 5**Correlation Matrix between Dependency Ratio and Forest Dependence**

	Forest Dependence	Dependency Ratio
Forest Dependence	1	0.16
Dependency Ratio	0.16	1
N=162 Sig(2-tailed) = .843		

The Pearson's r for the correlation between the variables of dependency ratio and forest dependence in our study is 0.16. This indicates a quite obvious fact that any positive change in dependency ratio directly affects forest dependence.

Now coming to the living condition of the households we find that though the traditional list of immediate basic human needs include food, shelter and clothing, but the modern lists emphasize the basic needs including clean drinking water, sanitation and electricity facilities, level of education etc. In this context, we are concerned here with the basic amenities availed by the villagers in the study area. The housing structure of the sampled households states that major proportion of people, about 54.03%, lives in kuchha house followed by semi pucca house of around 34.78 %. Meagre population of around 9.31 % lives in pucca house. The following table shows the basic amenities as availed by the surveyed people in the four blocks.

Table: 6**Basic Amenities**

Basic Amenities				
Blocks	Toilet	Electricity	Drinking Water	IAY
Bangiriposi	4	4	41	1
Bisoi	39	8	8	7
Jashipur	2	36	30	2
Shamakhunta	20	21	17	5
Total	65	69	96	15

From the above table it is revealed that as most of the people in the study area do not avail the basic amenities, this deplorable situation often drives them in consuming more forest resources. In the following pie diagrams, the block wise availability of basic amenities are reflected in percentage.

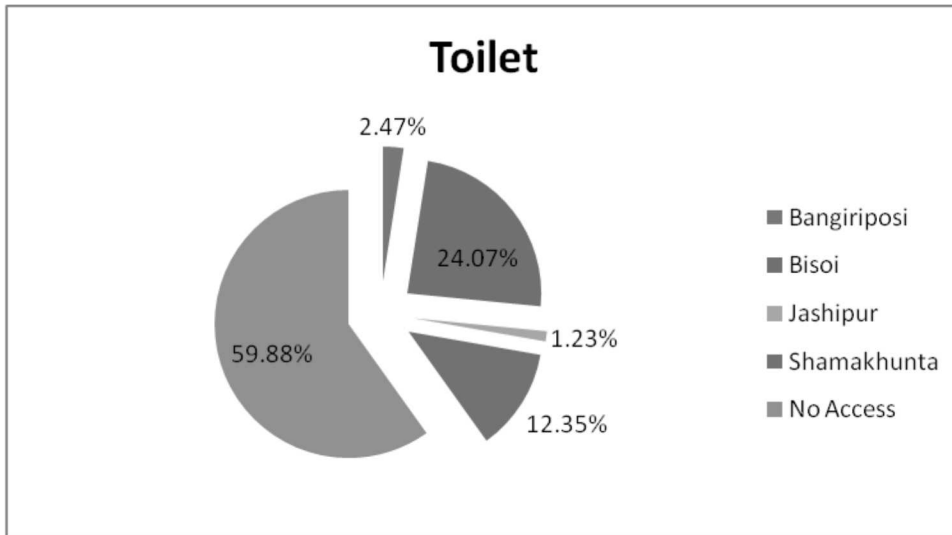


Figure: 9

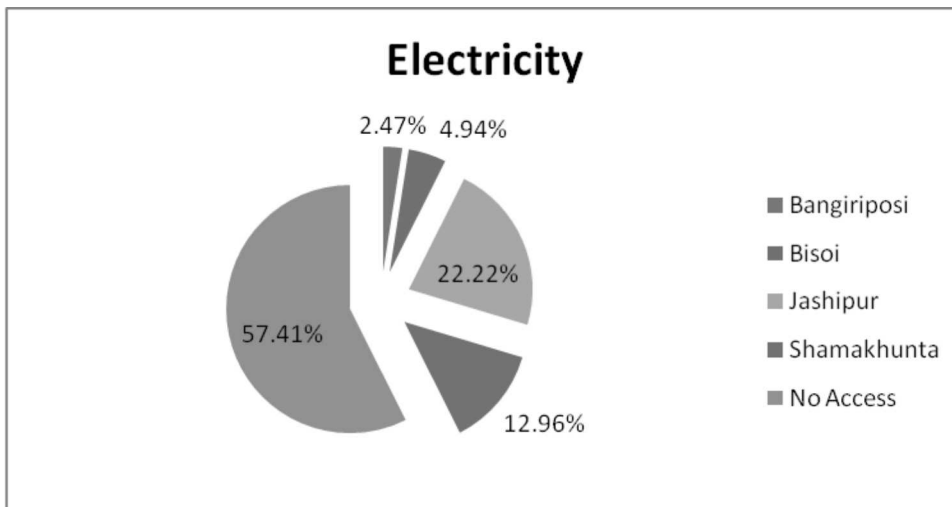


Figure: 10

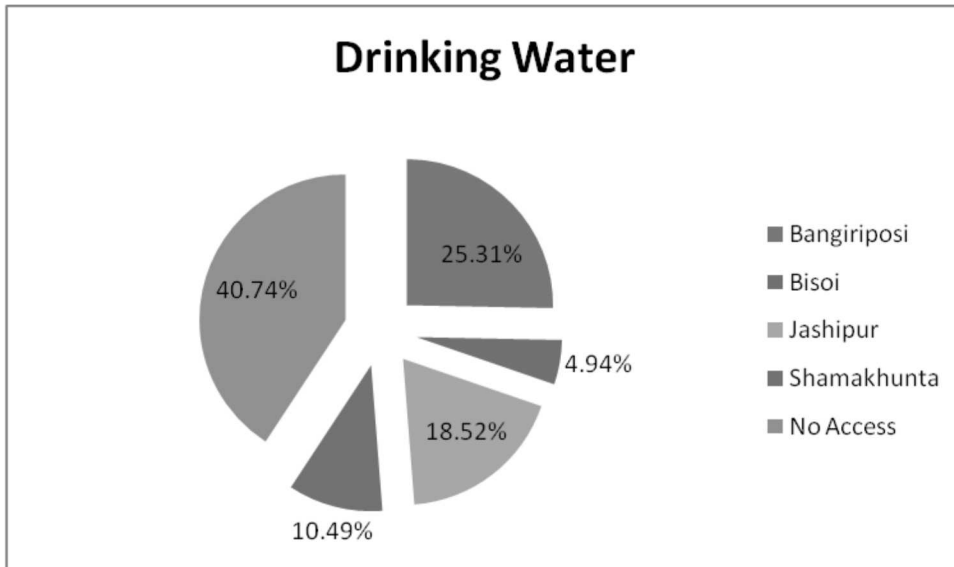


Figure: 11

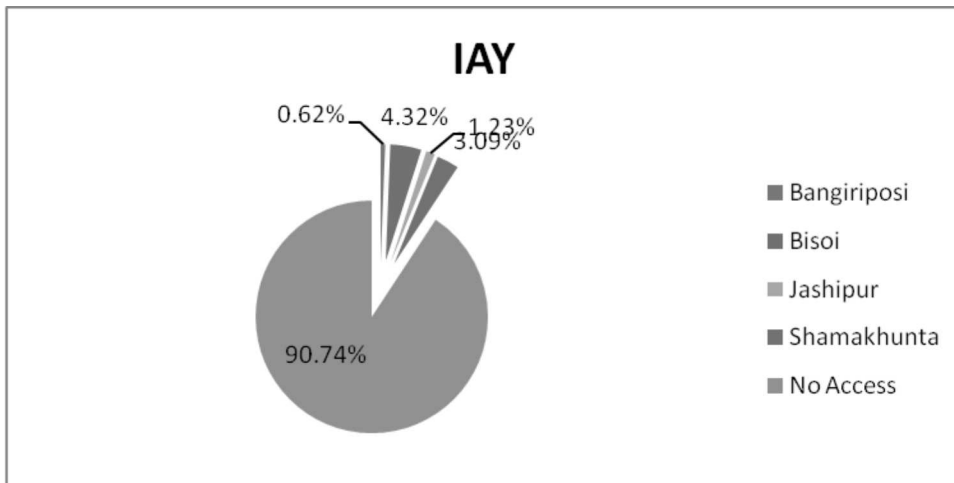


Figure: 12

Another important social factor is the level of literacy which can influence forest dependency. The following table shows the distribution of respondents by their literacy level.

Table: 7**Distribution of Respondents by Education**

Distribution of Respondents by Education						
Blocks	Illiterate	Pre-Primary	Primary	Medium	High School	College
Bangiriposi	25	0	1	3	7	5
Bisoi	34	0	2	2	2	4
Jashipur	25	0	5	4	4	4
Shamakhunta	23	0	8	4	0	0
Total	107 (66%)	0	14 (8.6%)	13 (8%)	13 (8%)	13 (8%)

From the above table it is revealed that 66 percent of the respondents are illiterate. So it may be justified to assume that their awareness is low regarding conservation of forest resources for future use. We have performed our study also at household level. Hence acquiring information of the households from the respondents, we have calculated average education level for each household. Then considering the four blocks taken together we have formed the correlation matrix to show the relationship between average education level of the household in the study area and forest dependence.

Table: 8**Correlation Matrix between Average Education Level and Forest Dependence**

	Forest Dependence	Average Education Level
Forest Dependence	1	-0.28
Average Education Level	-0.28	1
N=162 Sig(2-tailed) = .724		

The Pearson's r for the correlation between the above mentioned variables shows that with the increase in education level, forest dependence reduces. This may be due to the fact that, increase in education level increases environmental awareness and thus helps in reducing forest dependency.

While coming to the economic factors which influence forest dependence, asset holding, total income or earnings from NTFPs may be taken into account at the household level. The following table shows the structure of asset holding of the surveyed population.

Table: 9

Blocks	Agricultural land	Livestock
Bangiriposi	37 (90.2%)	39
Bisoi	40 (90.9%)	42
Jashipur	36 (85.7%)	39
Shamakhunta	7 (20%)	24
Total	120	144

From the above table we find that, most of the people have agricultural land other than Shamakhunta block and certain amount of livestock. As forestry activities are seasonal in nature, so the people always look for alternative livelihood opportunities. The following table shows the descriptive statistics of monthly income for the four blocks. Then a correlation matrix is formed to show the relation between forest dependence and total income of households (considering all the available sources of income through out the year per household and then converting monthly basis).

Table: 10

Block wise Income of the Households				
BLOCKS	Min	Max	Mean	Standard Deviation
Bangiriposi	16400	260000	48246.83	28977.24
Bisoi	10440	373600	54745.91	78559.56
Jashipur	3600	162000	46225.48	1979.90
Shamakhunta	15600	155600	55935	4242.64

The above table reflects that standard deviation (SD) of monthly income is low in Jashipur and Shamakhunta blocks compared to Bangiriposi and Bisoi blocks. It is abnormally high for the Bisoi block. Economically we can interpret the situation as, disparity of income is highest in Bisoi block and then followed by Bangiriposi, Shamakhunta and Jashipur blocks respectively. In the following table, the correlation matrix is formed to show the relationship between forest dependence and total income at monthly basis and at household level for the four blocks taken together.

Table: 11**Correlation Matrix between Total Income and Forest Dependence**

	Forest Dependence	Total Income
Forest Dependence	1	-0.008
Total Income	-0.008	1
N=162 Sig(2-tailed) = .920		

The Pearson's r for the correlation between the variables of total income and forest dependence is negative which indicates the usual fact that with the increase in income level, forest dependence reduces.

Another important factor which influences forest dependence is the earnings from non-timber forest products (NTFP). In Simlipal forest area, people collect several NTFPs which include plant tissues used for fiber, medicine, edible leaves, roots, flowers, fruits, seeds, nuts, honey, resin, glue etc. Forest-fringe dwellers collect NTFPs all through out the year which have consumptive as well as exchange values. It is assumed that, this collection often causes forest degradation and is not guided by the safe limit of resource use under the system of participatory forest management. The following table shows the correlation between NTFP earning and forest dependence.

Table: 12**Correlation Matrix between NTFP Earning and Forest Dependence**

	Forest Dependence	NTFP Earning
Forest Dependence	1	0.566
NTFP Earning	0.566	1
N=162 Sig(2-tailed) = .000 Correlation is significant at the 0.01 level (2-tailed).		

The Pearson's r for the correlation between the variables of NTFP earning and forest dependence shows that with the increase in NTFP earning, forest dependence increases. This may be due to the fact that any increase in NTFP earnings induces the people to remain engaged in forestry activities and thus forest dependency increases.

5. Conclusions:

In conclusion we can say that as several demographic and socio-economic factors, which construct livelihood pattern of any community, are responsible to determine future scope for

alternative livelihood opportunities and thus may reduce forest dependence of the people residing near the forest area, so timely assessment of livelihood is very much necessary. Moreover, any initiative to bring a positive change in livelihood may help in better conservation of forest resources. In this regard the roles of government as well as Non-governmental Organizations (NGO) are important. NGOs are usually non profitable groups, which work for welfare of the society, creates awareness for reducing vulnerability in economic, social as well as ecological sense. Thus the perception of people regarding present use and future use of resources varies with the presence of NGOs. The NGO, named “Vasundhra” is very much active in Jashipur block. Hence we can conclude in the way that the combine efforts of the government and the NGOs with involvement of local people may aim at reducing forest dependence and restoring bio diversity. In turn this type of initiative may help to achieve sustainable development following the principle of inclusion.

References

- Behera, B. and Dash, M. (2013): “Biodiversity Conservation and Local Livelihoods: A study on Simlipal Biosphere Reserve in India”, *Journal of Rural Development*, Vol. 32, No. (4) pp. 409-426
- Bhattacharya, P. (2017): *Redefining Forestry for Effective Livelihoods*, <https://books.google.co.in/books?isbn=8179935310>
- Chopra, K. and Dasgupta, P. (2008): “Nature of Household Dependence on Common Pool Resources: An Empirical Study in India”, *Economic Political Weekly*, Vol. 43, Issue No. 08, 23 Feb, 2008
- FAO Report, 2015
- Fukuyama, F. (2008): “State building in the Solomon Islands”. *Pac. Econ. Bull.* 23, 1-17
- Ghosal, S. (2011): “Importance of non-timber forest products in native household economy”, *Journal of Geography and Regional Planning*, Vol. 4(3), pp. 159-168.
<http://www.academicjournals.org/JGRP>
- Gilmour, D.A. and R.J. Fisher (1991): *Villagers, Forest and Foresters: The Philosophy, Process and Practice of Community Forestry in Nepal Kathmandu*, Sahayogi Press.
- Hotelling, H. (1931): “The economics of exhaustible resources”, *J. Polit. Econ.*, 39, 137-175
- Ike, D.N. (1984): “The System of Land Rights in Nigerian Agriculture”, *Amer. J. Econ. Sociol.*, 43, 469-480.
- Indian State of Forest Report (ISFR), 2017
- Kuhlman, T. and Farrington, J. (2010): “What is Sustainability?” P: 3436-3448, www.mdpi.com/journal/sustainability

- Malthus, T. R. (1798): *An Essay on the Principle of Population*, J Johnson, London
- Meadows, D.H.; Meadows, D.L.; Randers, J.; and Behrens, W.W., III. (1972): "The Limits to Growth", *Potomac Associates, New American Library: Washington. DC. USA, 1972.*
- Sarkar, K. (2011): "Survival needs and Socio Economic Dynamics-Impact on Common Property Outcome in Southern Forest Division of Bankura District," *shodhganga.inflibnet.ac.in/bitstream/10603/22116/2/final%20thesis%20report.pdf*
- Suryaprakash, S. (1999): "An Economic Analysis of Non-Timber Forest Products in the tribal Economy in the Western Ghats region of Karnataka," *A Report by Univ. of Agric. Sci., GKVK, Bangalore, Karnataka (India).*
- Wilderer, P.A. (2007): "Sustainable water resource management: The science behind the scene" *Sustain. Sci.*, 2, 1-4.
- World Bank Report (2016): "Leave No One Behind: A Call to Action for Gender Equality and Women's Economic Empowerment", *UNHLP*
- World Commission on Environment and Development, *Our Common Future: The Bruntland Report*, Oxford University Press from the World Commission on Environment and Development, New York, 1987.

REPORT OF THE 39th NATIONAL CONFERENCE OF THE BANGIYAARTHANITIPARISHAD (BENGAL ECONOMIC ASSOCIATION), HELD AT PROFESSOR ANITA BANERJEE MEMORIAL HALL, JADAVPUR UNIVERSITY, KOLKATA ON MARCH 9 & 10, 2019

The 39th Annual Conference of Bangiya Arthaniti Parishad (Bengal Economic Association, BEA) was held on 9-10th March 2019 at PROFESSOR ANITA BANERJEE MEMORIAL HALL,UG Arts building Jadavpur University,Kolkata-700032.This conference was organised by Bangiya Arthaniti Parishad with support from ICSSRERC,NABARD,IEA Trust for R8: Dand many others . The theme of the Conference was Education, Biodiversity, and Sustainable Development. Professor Dipankar Dasgupta, Retired Professor of Economics, 181, New Delhi and Kolkata was the Conference President this year .

9.3.2019 Inaugural Session

At the outset, Professor Dipankar Dasgupta, Conference President, Professor Biswajit Chatterjee, President BEA, Dr Ruma Bhattacharyya, Secretary BEA and Principal Bijoy Krishna Girls College were all invited to the dais and felicitated. This was followed by the welcome address by Dr Ruma Bhattacharyya, Secretary BEA where she welcomed the participants and invited speakers and dignitaries of the Conference .She also elaborated on the significant issues of discussions for the Conference. She hoped that the Conference will open up new vistas of knowledge pathways that will enrich the developmental goals of the nation. She welcomed one and all and wished the conference a grand success.

The President of BEA, Professor Biswajit Chatterjee in his address next welcomed all and thanked the conference president Professor Dasgupta and other the distinguished speakersProfessor Sudhanshu Bhusan, NUPEA, New Delhi, Professor Achin Chakraborty, IDSK, Professor Soumyen Sikder IIM Kolkata, Professor Arup Mih'a, IEG New Delhi,and the keynote speakers and Chairpersons .Professor Arup Mitra was also the recipient of the Samar Ranjan Sen Best Book Award 2019 and Professor Sarmila Banerjee of the University of Calcutta , was the recipient of the Panchanan Chakavarty Memorial Best teacher Award for this year.,and Professor Chatterjee welcomed both. In his opening remarks, Professor Chatterjee elaborated on the journey of BEA since 1980 and mentioned about the history of the name of the Association as Bangiya Arthaniti Parishad as distinct from the name Bengal Economic Association, which was once registered in 1918 , but died after few years .This might have created the ambiguity regarding the exact name of the Association , particularly

among the academicians outside WEST Bengal. In 1980, when late Professor Satyendranath Sen took the initiative to form the Parishad as the Association of economists, teachers and scholars of Economics in Bengal and other parts of the world, the name registered was Bangiya Arthaniti Parishad (BENGAL ECONOMIC ASSOCIATION). Professor Chatterjee mentioned that the Parishad (BEA) is an active academic association of the country, which is also the Associate Member of the International Economic Association. The Parishad focuses on the spread of understanding/ interest in the domain of research in Economics in Colleges and Universities of the state of West Bengal by roping in distinguished teachers, scholars and experts, and have been successfully organising one annual conference and one midyear seminar each year since its inception. In addition to the above, in this year, 2019, Professor Chatterjee announced that an additional one day seminar is planned to be organized by the Parishad to commemorate the Birth Centenary of Professor Dhiresh Bhattacharyya, the second President of the Association. Professor Chatterjee further stated that since 2013, the quarterly referred journal of the Association, Artha Beekshan has been in the list of top 203 social sciences journal of the country prepared by ICSSR. He urged the gathering to march forward on the visions of the founding father Professor Satyendra Nath Sen. He expressed his deep sense of gratitude to Professor Dipankar Dasgupta for kindly accepting the invitation of Bangiya Arthaniti Parishad to preside over its 39th Conference.

After the felicitation of Professor Dipankar Dasgupta with a shawl, Professor Chatterjee requested Professor Dasgupta to deliver his Presidential address to the 39th Conference. Professor Dasgupta, in his presidential address, spoke on "Oil Crisis and Globalization: Where Are We Headed". The erudite speaker in his deliberation touched upon a very contemporary crisis the world is facing today. Professor Dasgupta analytically provided a picture of the oil crisis within the dimension of short, medium and long run. He first provided the technical aspects of viewing the crisis and then very incisively focused on the supply and demand side of the issue of oil crisis in the era of global warming. He portrayed the paradoxes in the society where in the quest of becoming more efficient we are actually becoming less efficient in resource use. Professor Dasgupta analysed how the scarce resource like oil is being used by the oil rich countries for their own benefit and luxury. He clearly brought out the dilemma in a society where increasing the productivity of the oil lead to people buying more cars and encouraged the governments to reduce price of oil and also use it on purposes that are not so important as sustainable growth. He lastly points out that as the rate of consumption increases the precious oil will eventually run out and the future of humanity will rest on the alternatives to oil. Again these alternatives may not be energy efficient in the present technological framework. He concludes with the agonizing glimpses of the consequences in form of a shrinking world due to increased transport cost and rising sea levels leaving very small fraction of the earth habitable for the human race.

After the presidential address, vote of thanks was given by the secretary of the Parishad, Dr Ruma Bhattacharyya. She thanked all the participants, members, all the well wishers, and invited speakers as well as the Sponsors and supporters of this Conference. She also thanked the authorities of Jadavpur University for providing access to the hall and necessary support. The inaugural session was concluded.

Plenary Session I

The inaugural session was immediately followed by the Plenary Session I, where three keynote papers of the two technical sessions (Technical Session I: Education Learning and Development; Technical Session III: Inclusive Growth) were clubbed together. This Plenary session was Chaired by Professor Biswajit Chatterjee, President of Bangiya Arthaniti Parishad. After welcoming the keynote speakers, Professor Chatterjee regretted that the fourth speaker of the session Professor Manabi Majumder of the Pratichi Trust could not make it to the conference due to unavoidable reasons.

The first speaker was Professor Sudhanshu Bhusan of NUEPA, New Delhi, who presented his deliberations under the theme of Higher education. Professor Bhusan looked into the current research trends in social science research and its relation to education policy. According to him, trends are very important as they reflect the neoliberal thinking on structural changes in the system. He stated that policies in the neoliberal era are being affected on the basis of accountability, producing efficiently principles of market that will really guide issues. The neoliberal agenda tries to impose certain conditions on teachers, students and researchers. Once this agenda gets implemented especially in social science research it creates a discourse. This in turn counters the policies and programmes and may take the form of higher education into a set of tendencies and demonstration, which can counter the neoliberal policies. The strength of the discourse in form of research and surveys lies in the fact that it rectifies the policies from below. The plethora of critical literature provides an alternative to the policies imposed upon from above. At times when the balance of power is shifting in favour of the State, the challenges for original research problems become very high. Studies have revealed that although state funding is needed for research yet it should not overpower the research culture conducive for research growth which is inclusive and socially meaningful. Professor Bhusan went on to discuss various ongoing schemes of the government and concluded with highlighting the importance of criticality of social science research which is detrimental in maintaining autonomy in thinking and betterment of the society by improving upon the policies.

This lecture was followed by the lecture by Professor Arup Mitra of IEG on Inclusive Growth in India. The focus of the paper was on employment aspect of inclusive growth. Professor Mitra through his sharp analytical skill unravelled the various dimensions of pro-

ductivity of the labour force in the formal and informal sector, and brought out the employment potentiality of the Indian economy through Panel data analysis. For the econometric exercises, he made use of N55 unit level data as well as the data from Labour Bureau. Interestingly, the cross sectional coefficients showed some differences but the overall patterns from both the data revealed that the trends were same. The results showed that technology import was negatively related to labour absorption. He went on to show the mismatch between employment and skill mismatch through the skill mismatch index. When compared with the various sectors of the economy, it was seen that the skill mismatch was highest in the manufacturing sector and the skill gap was also increasing. He concluded with the suggestion to skill development through training so that the benefits of technological advancement can be reaped and the growth could become more inclusive.

The second lecture on the same theme on Inclusive Growth in India was delivered by Professor Achin Chakraborty of IDSK. Stimulatingly, the focus of this paper was on equitable growth rather than employment. Professor Chakraborty began his analysis with the very definition of inclusive growth. He considered the definition given in the 12th Plan Document as a wider one and moved on to elaborate on the abridged version of the definition of inclusive growth. He presented a brief survey of literature where the concept of inclusive growth was seen as equitable growth. He then dwelled on the concept of inequality and stated that substantial economic inequality in the society can influence political decisions and can inhibit the development of the sense of community. Professor Chakraborty then elaborated on the technical issues of measuring inequality in the Indian context. He very exquisitely weaved his threads of reasoning and brought out the status of inter group inequality based on IHDS round I and Round II data. The results showed that the inequality increased in round 11 than in round I. However, when variables of caste and religious groups were factored in, it showed that STs are the worst suffers as far as income growth is considered while SCs and OBCs relatively better income growths for them. However, he cautioned that such factoring in may have certain methodological issues, so the income growth was divided by the population growth and still the composite index showed the relative worse off position of the STs and Muslims and relatively better off position of SCs and OBCs. Professor Chakraborty concluded his lecture by questioning the equitability aspects of inclusive growth in India.

This was followed by a vibrant questionanswer session where the teachers, students and researchers participated and was well reciprocated by respective speakers. Thereafter, Professor Arup Mitra was presented with the Professor 5 R Sen Best Book Award, 2019 by the President BEA, Professor Biswajit Chatterjee for his book *Insights into Inclusive Growth, Employment and Wellbeing in India* published by Springer (2013). Professor Biswajit Chatterjee

read out the citation for Professor Mitra. Professor Arup Mitra heartily acknowledged the Bangiya Arthaniti Parishad for the recognition. The vote of thanks was offered by Dr Roopkatha Mukherjee, Department of Economics, of Bijoy Krishna Girls College and the session broke for lunch.

Plenary Session II

The second plenary session of the Conference had two memorial lectures.

The S.N.Sen Memorial Lecture was delivered by Professor Ambar Nath Ghosh of Jadavpur University, Kolkata, and it was chaired by Prof. Santanu Ghosh, Vice President, Bangiya Arthaniti Parishad. Professor Ambar Nath Ghosh paid his homage to Professor S.N.Sen and shared with the participants his views regarding how the capitalist world functions in his lucid lecture titled "Capitalism and the Common Man in the Twenty-First Century". He argued that the co-existence of extreme economic inequality under capitalism and political equality under multi-party democracy constitutes a grave puzzle and resolution of this puzzle is absolutely essential for gaining an understanding of how a capitalist society functions. It was a very enriching lecture about the history of capitalism and Professor Ghosh explained how the giant capitalists conquered India and what strategy India should follow to gain back her economic independence.

Sm Giribala Karmakar Memorial Lecture was chaired by Professor Pabitra Sengupta and Dr. Asim K. Karmakar and it was delivered by Professor Basabi Bhattacharya of Jadavpur University. The lecture titled "Risk Management: An Evolving Discipline" gave an overview of the gradual development of the understanding of risk as an evolving discipline over the years. Professor Bhattacharya discussed different risk scenarios, major types of risks, Basel issues, risk features and issues related to risk management. The lecture highlighted that among the three major types of risks market risk, credit risk and operational risk operational risk deserves significant importance in the evolution of risk culture. A holistic approach, following systematic theoretic framework, was proposed in the lecture to understand the functioning of economic and financial systems and generation of risks within the system.

The proceedings of the first day of the Conference concluded with Tea at 5-30 pm.

10.3.2019 A.K. Dasgupta Memorial Lecture

The session on A.K. Dasgupta Memorial Lecture was chaired by Prof. Biswajit Chatterjee, President, Bangiya Arthaniti Parishad. The A.K. Dasgupta Memorial Lecture 2019 was delivered by Prof. Soumyen Sikdar, Professor of Economics, IIM Kolkata. The topic of his discussion was "Macroeconomics in Post Crisis Era".

Introducing this lecture, Professor Biswajit Chatterjee mentioned about the pioneering contributions of Professor Amiya Kumar Dasgupta, who is considered as the first theoretical economist of the country. His Ph D thesis, entitled "Concept of Surplus in Economic Theory" at the London school of Economics under the supervision of Professor Lionel Robins, brought him to the forefront of theoretical discourse in the discipline of Economics, and later he visited Cambridge and worked with John Maynard Keynes. He was co-supervisor of the Tripos thesis of Amartya Sen on Choice of Techniques, along with Maurice Dobb. His later book Epochs in Economic Theory is hailed as the frontier contribution in economic thought by Paul Samuelson of MIT. Professor A.K. Dasgupta was the Second Conference President of Bangiya Arthaniti Parishad. Bangiya Arthaniti Parishad is thankful to his daughter Dr Alaknanda Patel and her family to institute this Annual A.K. Dasgupta Memorial Lecture, and this year the XIIIth lecture will be delivered by Professor Soumyen Sikdar, himself a brilliant theoretical mind in Economics in India.

Prof. Sikdar started off with his first introduction of A.K. Dasgupta through a book at Dasgupta Book Store at College Street in his college days. As an intellectual discipline modern macroeconomics has a fascinating history, displaying clearly discerning right and left that can be generally put in correspondence with the swings in political ideology. The topic of his paper was primarily theoretical where he made a comparison between Great Depression and the Great Recession. Global Financial Crisis or the Great Recession is second only to the Great Depression in terms of job destruction, loss of output and wealth, shrunken investment, loss in confidence. Within this period the year 2008 marked the beginning of the Great Recession or the Global financial Crisis, which is without question the greatest economic disaster since the Great Depression. The trauma of the Great Depression gave birth to modern macroeconomics. The Great Recession—its origin and associated policy failures exposed fundamental weaknesses and inadequacies of the prevailing macro paradigm, the Neoclassical Synthesis. But the aftermath of Green Depression brought about a new dimension in macroeconomic theory in the form of General Theory by Keynes. After tracing the history in a broad sweep the lecture concentrate on developments in theory and practice since 2000. However, no such theory or nothing has emerged yet from Great Recession. As envisaged by Neoclassical theory, in the short run, the Keynesian theory operates, whereas in the long run, the Classical theory operates. There were serious inadequacies of existing framework. The failure to predict the crisis, second time after Asian Crisis made it necessary for some efforts on to produce better leading to a more relevant macroeconomics, particular with better real-financial inter-linkage. The time apparently is ripe for another revolution in macroeconomics. The lecture takes a look at the novel policy measures that were taken to tackle the financial collapse and its contagion and some of the subsequent attempts at redesigning the analytical apparatus to make it more suitable for the post-crisis world. Unlike The General

Theory no magnum opus has emerged yet, but numerous exciting avenues are being explored. The lecture gave an extensive overview of the major developments in macroeconomic theory in non-technical terms, and the participants congratulated Professor Sikdar for the lucidity and analytical rigour contained in the lecture.

Plenary Session III

The third Plenary session of the 39th Annual Conference of Bangiya Arthaniti Parishad (Bengal Economic Association) was held on 10.3.19, where the keynote papers on two themes viz. Biodiversity and Sustainable Development and Challenges before Indian Industries were presented. Professor Mamata Ray, Principal Bethune College, Calcutta chaired the session. The keynote speaker of the theme on Biodiversity and Sustainable Development was Professor Sarmila Banerjee, of Calcutta University, and that of the theme on Challenges before Indian Industries was Professor Arpita Ghose of Jadavpur University. At the outset, the chairperson welcomed the distinguished speakers and requested Professor Sarmila Banerjee to present her keynote paper first.

In the context of sustainability of an eco-system, Professor Sarmila Banerjee's paper "Diversity, Differentiation and Competition : a Reflection on Sustainability" discusses the diversity, differentiation and competition, and the points to role of public policy in achieving the sustainability in the long run. Starting her discussion with the experience of India's Green Revolution Prof. Banerjee laid emphasis on the crucial interdependence between diversity and sustainability. She has mentioned about the danger through which the world is passing today. On one hand, a large portion of the population is still struggling for subsistence and on the other hand another portion of the population is badly affected by consumerism. Given the degree of mismatch between aspiration and local conditions, Professor Banerjee has stressed on finding out the appropriate Art of Living in terms of both sustainable production as well as sustainable consumption. Given the complexity of interactions in Economy, Society and Nature, the speaker has concluded that only micro-level responsible behaviours would certainly be inadequate to guarantee the overall macro balances. She has called for thought provoking suggestions in this regard.

The second keynote speaker of this session Professor Arpita Chose. In her paper "Challenges before Indian Industries" gave an overview of different factors influencing Indian industrial development. She has opined that the good performance of the industrial sector needs to enhance its cost competitiveness by fostering Total Factor Productivity Growth (TFPG). According to her since 1991 several measures have been taken by the Government of India for boosting up the industrial productivity. There were changes in technology, import policy, FDI policy etc. to make Indian industrial sector more efficient. Different studies have shown that the performance of TFPG after liberalization vary among studies: some of them supporting the decline while others differing in this aspect.

Professor Ghose has concluded by saying that results support the evidence that there are economies of scale in Indian industries after the reform of 1991. In this regard emphasis needs to be laid on the inter-linkages between the agricultural and industrial sectors. This can be achieved through forward and backward linkages.

After the presentation of the keynote speech, the President of BEA Professor Biswajit Chatterjee announced the presentation of Panchanan Chakraborty Memorial Award for best Teacher for the 2019. The recipient of this award is the revered teacher Professor Sarmila Banerjee. Professor Chatterjee mentioned that this award is given for excellence in Teaching, in the memory of the great teacher of Economics of Calcutta University, Professor Panchanan Chakravarty. Professor Chatterjee read out the citation and mentioned the excellent contribution by Prof Sarmila Banerjee towards teaching economic theory, econometrics and Environmental Economics. The award was presented to her by Dr. Ruma Bhattacharya, Secretary BEA. Professor Sarmila Banerjee, thanked the Parishad, and said that she feels embarrassed whether she actually deserved it or not. Members overwhelmingly congratulated Professor Banerjee. The session broke for lunch.

Post Lunch Technical Sessions Themes I, II, III, IV: Presentation of papers by the scholars

The first technical session on the theme on Education was chaired by Dr. Ruma Bhattacharya, Secretary bangiya Artham'ti Parishad and Principal, Bijoykrishna College for Girls, and the Rapporteur was Dr Debjani Mitra. Five research papers in different fields of education, learning and development were presented in this session. Dr Sudip Jana has presented his paper "Education and Skill Development : Some Emerging Issues in India" by focusing on the performance of skill development schemes of India with respect to employment. Dr. Smritikana Ghosh in her paper "Comparison of the Education System : India and Pakistan" tried to compare these two countries with respect to education and find out the difference between two. The next paper was on "Accessibility of Rural Primary Schools : A Case Study of North 24 Parganas" by Sweta Mondal and Prof Sudakshina Gupta. This study has been done on the basis of primary data. They tried to assess the accessibility of children to rural primary school through the three parameters travel time, travel cost and quality of schools. The fourth paper was presented by Soumi Datta, Arka Sanyal and Sudakshina Gupta on "Brain Drain to Brain Circulation: Revisiting the Changing Era in the Context of Indian Higher Education System". They focused on concept of Brain Drain and its changing pattern with respect to time. Journey of "Brain Drain" to "Brain Circulation" has been enlightened in this paper.

Dr Sanjay Bhattacharya and Dr. Prankrishna Pal in their paper "A Revision to The Inquiry on the Infrastructural Quality Index of Primary Education in the Districts of West

Bengal" tried to analyze the comparative performance of some selected educational infrastructural quality variables in West Bengals and its constituents districts during last ten years.

The second technical session on the theme on session on Bio-Diversity and Sustainable Development was chaired by Dr.Subrata Kumar Ray, Principal, Prabhu Jagatbandhu College, Andul. Dr.Aparajita Dhara was the Rapporteur in this session There were eight selected papers in the session out of which four were presented in the conference.

The first paper "Quantitative Measurement of District Level Vulnerability in West Bengal: A Macroeconomic Study" by Dr.]yotish Prakash Basu of West Bengal State University, Barasat, focussed on seventeen macroeconomic variables collected from secondary sources for 2001 and 2011. The study calculated the vulnerability indices for 18 districts of West Bengal using exposure, sensitivity and adaptive capacity of [FCC approach and attempted to identify the determinants of vulnerability at the district level. It was found that while Purulia, Bankura ,Jalpaiguri and Darjiling were more vulnerable, West Medinipur, Murshidabad and Hoogly were less. Maximum temperature, cropping intensity, agricultural population net sown area and poverty were identified as the main determinants.

In the next paper "The Dynamic Links among Human Development, Environment and Economic Growth: En Route to the Path Towards Sustainability", Sovik Mukherjee of St. Xavier's University, Kolkata, pointed to the interactive nature of the different aspects of sustainability of development and investigated the interrelations among the various facets of sustainability. The paper analysed the dynamic relations between human development, natural environment and economic growth using simultaneous equations econometric models and estimated the models with cross-country data on 110 countries over 1990-2015.

Dr. DebolinaSaha and ShradhaAgarwalla of Rabindrtharati University in their paper "Assessing Livelihood and Environmental Sustainability: A Case Study in Simlipal National Park, Odisha" argue that a livelihood is sustainable when it enables people to cope with and recover from shocks and stresses and so it is closely related to the concept of sustainable development which gives emphasis on meeting the needs of present generation without compromising the needs for future. Their paper studies the livelihood pattern in the four blocks of Simlipal region, namely, Bisoi, Bangriposi, Iashipur and Shamakhunta using primary surveys. It was found that Non-Timber-Forest-Products were the sources of direct consumption as well as means of livelihood and this over dependence often causes environmental degradation and affects the goals of sustainable development in an adverse way.

The last paper of the session was "Towards Protecting and Preserving Bio-Diversity for Sustainable Development" by Dr.Asim K. Karmakar of NetajiSubhas Open University, Kalyani and Dr.Sebak K. Jana of Vidyasagar University, Midnapore. This paper attempted to enu-

merate the role, significance and root causes of loss of biodiversity and its conservation based on cross country data.

After the presentation of papers, there have been lively discussions on methodologies and data used in the papers. There were some useful suggestions from the participants .

The third technical session on Inclusive Growth in India was chaired by Dr M0u Roy of Lady Brabourne College, Kolkata, and Dr Purba Roy Choudhury was the Rapporteur. There were three papers presented in this session. The first paper "Economic Growth, Regional Disparity And Sectoral Concentration In India: A State-Level Sectoral Analysis" was presented by Dr. Purba Roy Choudhury, Associate Professor, The Bhawanipur Education Society College. This paper examines the relationship between regional disparity, economic growth and sectoral concentration for six major sectors namely agriculture, industry and subsectors of services for the 16 major Indian states using time series data for the period of 1970-2010 with special reference to the service sector. According to Classical development economics, there is a causal link between structural change, regional disparity and economic growth. The paper uses the standard methodology of time series in the context of unit root, trend analysis, co-integration and causality tests. As far as economic growth is concerned, growth performance in India improved during the post-reform period mainly because of the high growth in the services sector. The fast-growing sectors were the transport storage and communication sector and banking insurance and financial services sectors, which were considered as the dynamic components of the service sector. The paper constructs indices of structural change with the Krugman's sectoral concentration index and measure of regional disparity using Theil entropy measure of inequality. The calculations of the concentration index in the states for sectors on average for the period 1970-2010 indicate that in 1970, the output of the states in comparison with the India is highly concentrated in transport storage and communication sector followed by industry, agriculture and financial services. However, in 2010, concentration is highest in agriculture followed by banking insurance and financial services followed by community, social and personal services. The concentration is relatively high in financial sector and conversely, the lowest concentration was seen in services as a whole and community social and personal services in particular. The increase in the degree of concentration in most branches is accompanied by the rise in regional dissimilarities. The Theil entropy measures that regional disparity is found to be high in the service sector as well as Net State Domestic Product. The increase in regional disparity in almost all the sectors is found to be positive and significant. It is clear that except for agriculture and transport, storage and communication, non-linearity in the remaining cases is found to be significant in the sense that the coefficients of the higher degrees of time are all significant. There is a non-linear fluctuating trend in the growth of regional disparity in different sectors. Finally a causal relationship using standard time series techniques shows that there is a positive unidi-

rectional relationship between sectoral economic growth and regional disparity. However, the relationship between economic growth and sectoral concentration shows bidirectional causality. The paper therefore ensures that higher economic growth leads to more regional disparity across sectors. However, different sectors showed different causal relationship between the variables.

The second paper of the session was "Self Help Group Bank Linkage Programme And Financial Inclusion A Performance Study" by Tannistha Chakrabarti, Sanchaita Ijazra, Debolina Sanyal, Sumedha Kundal, Upasana Bhattacharya, students of MA. and M.Phil students of University of Calcutta and Dr. Sudakshina Gupta, Professor, Department of Economics, University of Calcutta. The study offers an emphasis on strengthening the cooperative banks and implementing rural development for the overall development of the economy while incentivizing private banks to participate more in the inclusion program. Microfinance has ushered in a revolution in India over the years and it plays a pivotal role in providing multi-pronged benefits to the poor in our country. The central aim of microfinance is to improve the overall welfare of Indian households who are living below the poverty line. In the light of this growing idea, the common targets of development and financial inclusion processes are the Self-Help Groups (SHGs). The SHG-Bank Linkage Programme launched by NABARD in 1992 analyses the impact on the socio-economic conditions of SHG member households with the emergence of microfinance as a development strategy. This paper examines the average loan disbursement by the different types of banks (viz. public sector commercial banks, private sector commercial banks, regional rural banks, and co-operative banks) from 2008-2009 to 2017-2018 to the Self-Help Groups (SHGs) via the Bank Linkage Programme, facilitated by NABARD. ANOVA analysis on the data indicates private commercial sector banks and co-operative banks have significantly lower mean values of loan disbursements than the public commercial sector banks and the regional rural banks.

The third and the last paper of the session was "MCREGA: Sustainable Path towards Inclusive Growth" by Dr. Rivusanyal, Nabanita De, Dr. Susmita Banerjee. The paper was presented by Nabanita de. In this paper an effort has been made to analyse the impact of the scheme on asset creation, food grain production, women participation, social inclusion and financial inclusion. We have examined the sustainability (long run) aspect of MGNREGS by studying its impact on food grain production and asset creation. In order to understand the relation between the assets generated by MGNREGS and food grain production, a panel regression analysis has been done and the result shows that material expenditure incurred in MGNREGS have significant positive impact on food grain production. This type of programme has gained special attention of the policy makers in the era of 'agrarian crisis', which began in mid-nineties for its potentialities to solve the problem. But, on the other hand, many economists are raising concern over the negative impact MGNREGS may have on labour market

due to the general increase in wage rate in post MGNREGS period. These contradictions have made us interested to examine the nature of role played by MGNREGS in rural labour market. In this paper, a critical study has been made with the help of available secondary data to analyse the impact of MGNREGS on rural labour market. In order to examine the inclusive nature of the scheme we have analysed the workforce participation rate of SCs, STs and women in MGNREGA employment programme. The study reveals that the percentage of MGNREGA participants with bank accounts or postal accounts, have also increased, across the gender and also in totality, over the year, which ensures the potential of financial inclusiveness of the scheme.

After the papers were presented, questions and answers were presented and useful discussions took place.

The fourth technical session was devoted to the theme Challenges Before Indian Industries, and the session was chaired by Prof Arpita Ghose of Jadavpur University. Dr.Sujatla Bhattacharya was the Rapporteur in this session.

The session began with the paper of Professor Kalyan Das. The title of the paper was "The impact of economic reforms on structural changes and industrial development in the Indian economy: An econometric investigation". In this paper the author tried to analyse the trends in sectoral shares and inter-sectoral linkages explaining how significant were the impacts of economic reforms towards industrial development and in overall employment generation over the studied sample period from 1950-51 to 2014-15 using together with unit root, co-integration and causality framework. The empirical findings of the paper indicated that agricultural output, service sectoral output and investment in industrial sector are found to be non-neutral to industrial output while neither change in non-oil exports nor exchange rate nor structural change index led to change in industrial output in the short-run and strong evidence of cointegration relationships among the chosen variables in study and causal relationships to the changes in industrial output in the long run. The author in this paper revealed important insights on the dynamics of macro growth transition process by understanding inter-sectoral linkages. This is favourable in the process of identification of optimal macro-economic policies for accelerating economic growth.

The next paper was presented by Subhajit Majumdar, Assistant Professor, University of Gour Banga. The title of his paper was "Remittances and economic growth: Empirical evidence from India". He has shown that in many developing nations remittance payments are one of the significant sources of foreign exchange earnings. It has emerged as one of the more important and stable sources of foreign exchange inflow compared to the other capital flows. India has a large reserve of skilled and semi-skilled workers and hence it is one of the major contributors to the global labour flows. The presenter lucidly pointed out the relation-

ship between remittances and economic growth. The study involved a time series econometric analysis of contribution of remittances inflow to economic growth of India. The presenter in his paper concentrated on the relationship between remittances inflow and economic growth for the period between 1975-2016.

The last paper of this absorbing session was presented by Dr Sujatra Bhattacharyya, Associate Professor, Maharaja Srischandra College. The title of his paper was "Manufacturing Productivity and growth in India : Role of ICT-led skill formation". He commented that India's manufacturing sector is a matter of interest among the economists due to its unexpectedly unimpressive contribution towards the growth of the nation's GDP and growth of employment. Compared to the other Asian nations, the performance of the sector is miserably poor. The sector is characterised by low growth rate along with low employment mainly due to lack of skills. Apart from this, the sector is dominated by the unorganized segment where the productivity is extremely low. In this context he referred about Information and communication technology (ICT). ICT refers to the digital processing, storage and communication of information of all kinds. It has the potential to be used in every sector of the economy. In his study, Prof Bhattacharyya tried to examine the impact of information and communication technology on the Indian manufacturing growth and total factor productivity. The analysis also focused on the possibility of skill formation and employment growth in the sector through successful implementation of ICT. He had identified the phenomenon of "missing middle" in this sector which acted as one of the hindrances for ICT intervention in the sector. Still his analysis finds some positive and significant impact of ICT on growth, productivity and employment in the manufacturing sector.

After the completion of the presentation the chairperson Dr Arpita Ghose, Professor Jadavpur University appreciated the presenters and advised them to incorporate certain related issues which would enrich their paper. The presenters gladly accepted the chairperson's view. This absorbing session was well attended.

Conclusion

Before concluding the Conference, the President and Secretary of Bangiya Arthaniti Parishad thanked all the participants, invited speakers, sponsors and the organizers for making the 39th Annual Conference a grand success. President, Professor Chatterjee urged the scholars to bring out more quality papers in the subsequent seminars and conferences and enrich the academic tradition of the Parishad. The participation certificates were distributed to the paper contributors by the Secretary of the Parishad.

This report was prepared by the team of Rapporteurs of the 39th Conference-Dr Purba Chattopadhyay, Dr Mou Roy, Dr Aparajita Dhara, Dr Sudip Jana, Dr Purba Roy Choudhury, Dr Tapasree Banerjee, Dr Debjani Mitra and Dr Sujatra Bhattacharya.

Announcement-I



**Bangiya Arthaniti Parishad announces its Mid-Year Seminar
On 12th September, 2019 , Organised by Departments of Commerce, Economics, Education,
Geography, History, Political Science and Sociology
of Prabhu Jagatbandhu College, Howrah-711302, West Bengal
On the theme
Development with Disparity in India**

Objectives

The principal objective of this seminar is to assess the extent of various facets of disparities that persists in different segments of the country and its population and to analyse the ground level causes behind such inequalities so that these can be reduced in the future by undertaking proper measures for providing greater level of development to Indian people, especially to historically marginalised groups such as women and minorities.

Sub-themes:

Economic Disparity; Social and Cultural Disparities, Regional Development and Disparity, Educational Deprivation and Disparity, Politics of Disparities and Discrimination, History of Development with Disparity

CALL FOR PAPERS

Original research paper(s), case studies supported by recent data covering one of the sub-themes are invited for presentation in the seminar on or before **06/08/2019**. The paper be sent to:

Dr. Subrata Kumar Ray (Principal)
Prabhu Jagatbandhu College
8777589465, e-Mail: dr_skray@yahoo.com

Dr. Gopal Chandra Mandal
Associate Prof. in Economics,
Prabhu Jagatbandhu College
8001377418, e-Mail: gopal_eco@yahoo.com

REGISTRATION FEE

- Delegates: Rs 400/
- Research Scholars: Rs 300/
- Students: 150/

IMPORTANT DATES

Last date for submitting the Abstract: **06.07.2019**
Last date for submitting the full length paper: **06.08.2019**
Last date for submitting the registration fee: **06.08.2019**

Announcement- II

Bangiya Arthaniti Parishad (Bengal Economic Association) announces the holding of One-Day National Seminar on September 21, 2019 (Saturday) in collaboration with Maulana Azad College, Kolkata-700013 to Commemorate the Birth Centenary of Prof. Dhires Chandra Bhattacharya, its former President and a doyen of Teaching of Economics in West Bengal. The focal theme of the Seminar is “Understanding India’s Economy: Issues and Debates”. The tentative list of speakers include : 1. Prof. Mihir Kanti Rakshit; 2. Prof. Amiya Kumar Bagchi; 3. Prof. Ashis Kumar Banerjee; (First Session , 10-30 a.m. to 1 p.m) , and 4. Prof. Anup Sinha; 5. Prof. Debdas Banerjee; 6. Prof. Madhusudan Datta and 7. Prof. Achin Chakraborty (Second Session, 2 p.m. to 4.30 p.m.). Registration Fee for the seminar is Rs. 200/-. Professor Santanu Ghosh is the Convenor of the Seminar

GUIDELINES FOR THE AUTHORS

1. All articles and notes submitted for publication must be in English, an abstract not more than 300 words should accompany all articles.
2. Articles published (or submitted for publication) elsewhere should not be sent. If the article has been presented in a Conference or Seminar, which should be indicated.
3. Authors should authenticate their writings by signing their full name and furnish their address. Institutions, if any, should be clearly stated. These details should be provided in a separate sheet and author's identity should not be disclosed either in the text or in the abstract.
4. Papers for publication should be sent in MS-WORD format (.doc or .docx file).
5. Matter, intended for footnotes should be indicated consecutively in the text by superscript numbers and it should be entered serially at the end of the manuscript.
6. Bibliographical references should be given in full, in alphabetical order, after the footnotes.
7. Quotations must be carefully checked and citations in the text must read thus (Hicks 1993). References in the bibliography should be in the form: Hicks, J.R. (1939): Value and Capital, followed by name of publisher and place of publication. Authors should adhere to Chicago Manual of Style/ APA citation style.
8. Tables, both in text or in appendices should be consecutively numbered using numerals on the top and appropriately titled. Sources and explanatory notes (if any) should be given below the table.
9. Mathematical expressions should be presented in a way that will be easily printable. Proofs of mathematical theorems should be furnished in full on a separate sheet, even if condensed in the text.
10. Diagrams should be clearly drawn in black ink on glossy white paper with all axes clearly positioned. The width of a diagram should not normally exceed 6 cm. The legend in respect of the diagram should be stated below the diagram. Diagrams should be inserted in the text with appropriate numbering and should be in compatible formats as BMP, JPG, JPEG, TIF, WMF or EPS.
11. Cite sentences or words taken from other works with single quotation marks; use double quotation marks only within quotations. Separate quotations exceeding fifty words from the text and indent them on the left. Unless the entire sentence is part of the quotation, the punctuation must remain outside the quotation marks.
12. Authors have latitude as regards italicisation, but italicisation needs to be consistent in the article. Both British and American spellings are acceptable but use should be consistent throughout the paper.
13. Write numerals between one and ninety-nine in words, and 100 and above in figures. However, the following are to be in figures only: distance: 3 km; age: 32 years old; percentage: 64 percent; century: 20th century; and years: 1990s.
14. Authors should supply art pools of their diagrams along with their articles.
15. All materials submitted for publication should be typed in double space and 2 additional copies should be provided for references. Manuscripts will not be returned to the author(s) unless referee suggests revision of the contents. Revised manuscripts must be submitted in the same form as the original.
16. The Editorial Board reserves the right to edit or to reject any material submitted for publication without assigning any reason to the author(s).

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