

Periodic Research

A critique of the developmental model of underdeveloped states of India with Bihar as the test case



Sidharth Shankar
PhD researcher
BR Ambedkar Bihar University,
Muzaffarpur, Bihar
ssid@rediffmail.com

Abstract

Of late, public discourse has been filled with journalistic writings praising the developmental work done by Government of Bihar under Mr .Nitish Kumar. In this article, an attempt has been made to find out what exactly is the development model that Mr. Nitish Kumar is being credited for having devised. Furthermore, it has also been attempted to test the efficacy of this developmental model.

Although, the paper tries to restrict itself to the case study of Bihar yet, it could very easily be a critique of the developmental model of any other state of India or for that matter even of Union Government itself. During the course of researching for this paper, it was found that the developmental models of no two states in India are significantly different from each other. What differentiates one state from the other or in other words the 'performing' states like Gujrat, Maharashtra, Tamilnadu, Karanataka etc from the 'non-performing' states like UP, MP, Bihar, Rajasthan, West Bengal, Orissa etc is the seriousness displayed by the administration of the respective states to implement whatever model they have developed for themselves. It is in this aspect that the so-called performing states tend to fare better than the so-called non-performing states.

In a nutshell, it can be said that the basic aim of this paper is to check if the Nitish Kumar model of development is really suitable for a state like Bihar.

Keyword: Development model, Bihar, Nitish Kumar, Indian States, Economic policies, State finances, Policy reforms, Education, Health care etc.

Introduction

Bihar presents a rather unique case among all the states of India. This is a state which defies almost all forms of economic logic by clinging on to the quagmire of counter-productive politics and mind boggling poverty. Not just this, it is also a state which has the unique distinction of having successfully undertaken the journey from its past position as the crown jewel of India to a member of the 'BIMAROU' club. From being envied and looked up to by rest of India to becoming a butt of jokes and a subject of ridicule, Bihar indeed presents a picture which is difficult to resist from a researcher's point of view.

The last 20 years or so in the life of Bihar have been nothing short of a truly amazing journey wherein the state has lurched from one crisis to other without ever managing to find the right answers to the questions facing it. The period starting with the tenure of Mr. Jagannath Mishra and continuing right up to the present has baffled observers endlessly. In fact, a deeper look into the various forms of malaise facing the state can sometimes lead one to believe that the entire focus of the state has gone wrong.

Methodology:

This article is loosely divided into three parts. In the first part, there is an attempt to identify the various developmental models currently available to policy makers. It must be noted that no attempt has been made to substantially restate any of the existing models or the commentaries thereupon by various scholars. All the discussions on various models have been taken from various online sources with proper acknowledgements wherever applicable.

In the second part, data available from various secondary sources has been gathered to check the applicability or otherwise of the current developmental model of Bihar. In the third and final part, a very modest attempt to suggest outlines of a possible alternative course of policy making has been made. In spirit, this article is essentially a representation of the problem from a policy maker's perspective rather than from a pure academic perspective.

Theoretical framework of the critique:

The scope of economic development includes the process and policies by which a nation improves the economic, political, and **social well-being of its people**. Before actually delineating the contours of the alternative economic model, it is important to first understand what a 'model of economic

Periodic Research

Mansell and Wehn in their work '**Knowledge Societies: Information Technology for Sustainable** economic growth namely the increases in per capita income and an improvement in the standard of living. The theory of economic development, as stated by **Schumpeter** in his work '**The Theory of Economic Development**', is basically a set of techniques that can be employed to break the condition of stasis that persists in a pre-industrial economy or in an economy experiencing stagnation. According to **Schumpeter (2003)**, the changes in this equilibrium state of stasis can only be caused by intervening factors coming from the outside.

W.W. Rostow, the great structuralist economist in his seminal work 'The Stages of Economic Growth: A Non-Communist Manifesto' talked about economic growth being a process marked by milestones separating one stage of development from another. According to this model, the economic growth of any society can be divided into five basic stages of varying length namely:

1. Traditional society:

- a. Subsistence agriculture;
- b. Limited technology.
- c. Almost non-existent physical and social infrastructure

2. Pre-conditions to "take-off"

- a. Growth of primary industries
 - b. Mechanization of agriculture
- ## 3. Investment in physical infrastructure
- a. Mass education & Social mobility
 - b. Nationalism and a sense of shared economic interests

4. Take-off:

- a. Migration of man power from agriculture to industry
- b. Mass manufacturing of low value added goods.
- c. The "secondary" sector expands rapidly
- d. Urbanization

5. Drive to maturity:

- a. Diversification of the industrial base and rise of new industries
- b. From an investment-driven to consumption driven economy
- c. Large-scale investment in social infrastructure

6. Age of High mass consumption:

- a. Huge industrial base of the economy
- b. Low share of the primary sector

c. Mass consumerism and mass prosperity

Rostow's model rejects the Marxist emphasis on self reliance and equitable development. Rostow argued that economic take-off must initially be led by an engine comprising only a few sectors. This approach fitted beautifully with the the idea of comparative advantage propounded by David Ricardo. It is in this sense that it is said to form the foundation of the theory of modernization in social evolutionism. Rostow's model is however not the only model of development.

Share of different sectors in the state's GDP:

Year	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01(Q)
Total produce of primary sector	1069537	1225776	1031494	1501876	1357663	1664747	1707985	1812780
SGDP	2097127	2372810	2206268	2982862	3110655	3859907	4099794	4453263
%age of primary products in SGDP	51.00	51.66	46.75	50.35	43.65	43.13	41.66	40.71
Manufacturing	192219	182350	201393	222750	332451	479820	499200	519814
%age of manufacturing in SGDP	9.17	7.68	9.13	7.47	10.69	12.43	12.18	11.67
(Transport, Communication, Hotels & Restaurant)	405312	467347	412970	588698	662787	836804	883108	956075
%age of Transport, comm, Hot & Res) in total SGDP	19.33	19.70	18.72	19.74	21.31	21.68	21.54	21.47
Finance & real estate	107045	122292	146922	184610	216974	231551	272185	321778
%age of fin & real estate in SGDP	5.10	5.15	6.66	6.19	6.98	6.00	6.64	7.23

Some of the other important theorizations on development that form the crux of the body of developmental studies can be summarized as follows:

1. 'Backwardness' model by Alexander Gerschenkron:

Whereas the Rostow model can be said to be largely structuralist anchored in the idea of of linearity of stages of development, this model is a non-linear model which means it allows for different stages to coexist or for one or a few stages being skipped completely by an advancing society to take a leap to higher stages of development. Gerschenkron had cited the example of Meiji restoration as an instance where a society leapfrogged quite a few stages of Rostow's linear model to reach higher stages of development.

2. Core-Periphery theory of development i.e. Friedmann's Model:

This model too is a structuralist model and is based upon the idea of duality of core and the periphery. Core is defined as industrially development and periphery as backward. Often is the periphery dependent on the core. The relationship between core and periphery is one of producer-consumer.

The model can be divided into four basic concepts:

- **Core** – usually capital city or a large port city dominating the economy
- **Upward transitional stage** – Proximity to core as an advantage.
- **Downward transitional areas** – Distance from core as a disadvantage.
- **Resource frontiers** – Periphery as supplier of primary goods.

The model leaves open the possibility of multiple cores. In fact, as per the model, the greater the number of cores, the faster and more equitable would be the process of development.

Dependency Theory:

This theory is a direct result of the experience of colonialism and can be understood as a variant of core-periphery model. The coloniser exploits resources in the colony and reduces the later to the position of supplier of primary goods and a consumer of the finished products coming. Policies like trade protectionism and import substitution were some of the important prescriptions coming from this model.

Bihar: A case study of missed economic opportunities:

It is hard to dispute the fact that almost all the important economic indicators narrate the story of sordid state of affairs in Bihar.

Source: Directorate of Statistics and Evaluation (State Income), Bihar, Patna

<http://gov.bih.nic.in/Depts/PlanningDevelopment/Statistics/reptab25.pdf>

Periodic Research

The present day Government of the state is claiming to be working to reverse the decades old rot that it inherited from its predecessors. However, there seems to be a disconnect between the claims of the Government and the objective reality out there on the ground. The following tables depicting the state of certain economic parameters only confirm this intuitive inference:

Share of different sectors in the state's GDP:

Rank	State/Union Territory	HDI (2011)
High human development		
1	Kerala	0.790
2	Delhi	0.750
Medium human development		
1	HP, Goa, Punjab, North eastern India (excluding Assam), Maharashtra, TN, Haryana, J&K, Gujrat & Karnataka	0.617 for Goa to 0.519 for Karnataka

Source: Indian Human Development Report 2011, which is based upon data from 2007 to 2008.

It is not just the relative strength of individual industries in Bihar's economy which determines its backwardness. When the SGDP of the state is viewed as a percentage of the national GDP, the story does not change much.

Share of some states in the GDP of India:

State	Agri & Allied	Industry	Services	GDP in Rs (cr)	GDP in \$ (Bn)	Growth Rate	Share of India's GDP	Per-capita GDP
MH	150,622	382,715	715,116	1,248,453	234	16.86%	14.95%	101,314
UP	193,419	152,098	342,319	687,836	129	13.85%	8.23%	30,051
AP	140,343	186,172	349,282	675,798	127	14.74%	8.09%	68,970
TN	77,655	192,174	369,196	639,025	120	12.82%	7.65%	84,496
GJ	96,862	194,778	221,532	513,173	96	15.33%	6.14%	89,668
BR	66,185	46,394	140,113	252,694	47	24.40%	3.03%	22,691

Note: Exchange rate of INR53.3784 has been used to convert the GSDP in USD.

Source

http://unidow.com/india%20home%20eng/about_unidow.html

The table above clearly shows the heavy weightage of primary sector in the economy of Bihar, low levels of human development, extremely low share of the state in the national output especially when seen against its share in national population etc. However, the trend started very early, perhaps in late sixties, and has been continuing ever since with **intermittent periods of growth leading to some hope but ultimately to the repetition of the same story**. A look at the following table only reinforces this notion.

Growth of Factory units in Bihar and India			
Year	Bihar (Units)	India (Units)	Bihar's Share (%)
1994-1995	3600	121,010	2.92
1995-1996	3617	134,571	2.68
1996-1997	3317	134,556	2.50
1997-1998	3297	135,551	2.43

Source: Prasad Jagdish, "Bihar-Dynamics of Development", Mittal Publication, pp. 33

However, not withstanding the picture that emerges from the tables above, Bihar was not always like this. The available literature on Bihar's economic journey over the past 50 years clearly shows a secular trend of relative decline.

Economic history of Bihar in post-independence India:

In order to understand the broader trends, one can divide the history of post-independence Bihar into epochs representing different phases in the economic life of the state. Those epochs are as follows:

1. Golden age of congress (1947 – 80)
2. Era of economic consolidation and the decline of congress (1980 – 89)
3. Dark age of the state – Era of economic collapse (1980 – 2005)
4. Rebirth of hope (2005 onwards)

Golden age of Congress (1947 – 80):

This was the time when the atmosphere was one of hope and ambitions. Being the party in power, Congress party, guided by Nehruvian socialism, tried to shape the contours of Bihar's economy. The state Government tried to adopt a public sector dominated model of development with special focus on heavy and agro-based industries. Some of the well known parameters pointing to the economic state of affairs in Bihar during those days are as follows:

1. Until the mid 50s, 25% of India's sugar output was from Bihar.
2. Dalmianagar was a large agro - industrial town.
3. Creation of a dense cluster of heavy industries in south Bihar.
4. Large-scale mining industry.
5. There were attempts to industrialize the northern half of the state between 1950 and 1980:
 - a. An oil refinery in Barauni,
 - b. A motor scooter plant at Fatuha,
 - c. A power plant at Barauni and Muzaffarpur.
 - d. Creation of SME clusters in Muzaffarpur, Hazipur and Bhagalpur

So, in a nutshell, we can conclude that during this epoch, Bihar was by and large marching parallel to the rest of the country in the developmental journey.

Era of economic consolidation and the decline of congress (1980 – 89):

Data published by Indian government from 1980 to 1990 shows that undivided Bihar experienced a GSDP growth of 72% during this period in spite of the various socio-economic problems of the state which means it was one of the fastest growing economies in the country.

By late 1980s, the budgetary deficits of the state ballooned to such an extent that the state was forced to reduce its expenditure. Out of the two available options of increasing revenue and reducing expenses, the state chose the later. They achieved this reduction by cutting down on capital expenditure.

Dark ages of the state – Era of economic collapse (1990 – 2005):

This period coincides with the ascendancy of Mr. Lalu Prasad Yadav. He never had any concrete economic agenda and after the split from Janata Dal, in order to cement position of his fledgeling new party, he was forced to take recourse to increasingly divisive and sectarian agenda which was completely devoid of any sound economic rationale.

The characteristics of this period were as follows:

Symbolism over substance e.g. social justice

Policy formulation and governance was outsourced to the bureaucracy

Criminalization of politics and the resultant flight of financial & human capital

Large scale decay of institutions e.g. educational institutions
With the carving out of the separate state of Jharkhand, Bihar suffered a big loss of revenue with the new Bihar producing only 60% of its former output.

Periodic Research

Economic Indicators under the RJD rule:

Pre-RJD (1980s)	Post-RJD (1990s)
The non-agricultural sector grew by 6.62% against the national average of 6.61%.	3.19% against national average of 7.25%.
Per capita income grew by 2.45% against 3.32% for India as a whole.	0.12% as against 4.08% for India.
Agriculture growth of 2.21% against India's 3.38%,	It was 2.35% in Bihar against national average of 3.14%.

Source: <http://www.peopleofbihar.com/forum/topics/bihar-economy-history>

Return of hope (2005 onwards):

The end of the RJD rule or the 'Jungle Raj' signaled the end of the darkest hour. The victory of NDA marked the reemergence of the development plank. The new Government did all in its powers to send out the right signals. Following are some of the statistics sums up post Lalu Bihar.

- Bihar's SGDP grew by 12% per year for eight years.,
- Impressive gain of around 17% on literacy front.
- Female literacy improved even faster, by 20 percent.
- Improvements on infant mortality rate (44/1000).
- Bihar's life expectancy is now 65.8 years, just short of the national 66.1.
- Bihar's death rate is down to 6.7/1000 against the national average of 7.1.

Source:

<http://blogs.timesofindia.indiatimes.com/Swaminomics/entry/bihar-champion-athlete-does-not-need-steroids>

The real state of affairs in the state:

One has to give credit to the present NDA regime in the state for having turned the tide of the things in terms of the overall national perception about the state. A good evidence of this lies in the frequency with which the 'Memorandums of Understanding' i.e. MoUs are being signed between the state Government and the investors. However, the pathetic rate of conversion of MOUs into actual investments is however a cause of worry. Furthermore, if one were to discount the projects initiated during the first term of the present Government then the pipeline seems to have gone even drier during its second term. Going by the growing murmurs of dissatisfaction amongst the people, the state Government definitely seems to be on a sticky wicket. The fact that the present Government, after reaping the rewards of the Governance agenda, seems to be falling into the same trap of 'politics of symbolism', is symptomatic of the creeping malaise. So, before things really get out of control, it is important to do a course correction.

Present economic model of the state:

The policy thrust of the current regime can be summarized through the following excerpts taken from its document on economic policy:

- Development of physical infrastructure.
- Creation of a land bank to meet the land related needs of industry
- Creation of marketing infrastructure to benefit the MSME sector
- Proactive monitoring to ensure financial health of the industries
- Setting up of effective single window system
- Industrial parks by BIADA to promote industries in rural and urban areas

Source: <http://industries.bih.nic.in/Documents/IIP-2011-EN.pdf>

According to the 'Bihar industrial license policy – 2011' document released in 2011, the state Government has

identified the following industries as focus areas to ensure development of the state:

1. **Agro based Industries**
2. **Tourism related Industries**
3. **Super Speciality Hospital**
4. **Higher / Technical Educational Institutions**
5. **Information Technology based Industries**
6. **Electronic Hardware Industry**
7. **Textile Industry**
8. **Energy / Non-Conventional Energy**

Looking at the focus areas mentioned above and the pattern of investments made by the NDA regime in Bihar, it is clear that Government of Bihar has opted for an eclectic mix of industries with varying degrees of requirement of capital.

However, in order to attract investments, there are two questions that must be answered from the perspective of the State Government and one from that of the the industry itself, which are as follows:

Do these industries represent the right choice in terms of targets to be pursued for investment?

Whether the Government is doing all the right things to attract the required levels of investments?

And, the question from the point of view of the industry is as follows:

Given the scarcity of funds and large number of possible investment destinations, does Bihar really represent a compelling case for investment?

Each of these questions is quite vast in terms of their scope and hence any attempt to deeply analyze the answers would be way beyond the scope of a small article like this.

As a result, we would rather try to seek answers in a syncretic fashion so as to achieve a holistic understanding. For success in any drive to attract investment, the following must be ensured:

Raw materials

Power supply

Labor supply

Access to finance

Efficient logistical network

Well developed network of support industries

Favorable law & order situation

Comparative advantage over alternative investment destinations.

Let us now try to see where Bihar is placed on the above mentioned parameters that finally tilt the scales in favor of/against any particular investment destination. In fact, from the point of view of food processing industry, Bihar has at least the natural advantage in terms of potential to produce the required raw materials, for other industries Bihar has almost nothing to offer.

Large supply of cheap raw materials i.e. raw food:

A cursory look at a 2009 ICAR report, shows that more than 50% of Bihar's district are areas of low agricultural productivity. In fact, not just that, according to various reports published by multiple research bodies, Bihar does not figure in the list of top three producers of many of the important agricultural products.

However, in absolute terms, the state does have some potential for a fruitful albeit limited in scale food processing industry. This conclusion is based on the fact that the state contributes about 10 per cent of India's common fruit and vegetable output, but less than 1 per cent of processed output. This means that the state can aspire to have a share of at least 10% of India's total food processing output.

Large base of cheap and adequately trained manpower:.

On these parameters, Bihar seems to be one of the worst performers in India. According to a UNDP report, over 50 percent of the population over 15 years of age is illiterate.

Another parameter that defines the usefulness of the labor force is its health. Here too, according to the same UNDP

Periodic Research

report, health quality of workforce in Bihar is one of the worst in India.

3. **Large domestic market:** Although the population of Bihar is large yet, it is a population with limited disposable income for anything beyond the bare necessities. According to the NSSO Consumption Survey (2004-5), Bihar is the state with the lowest level of per capita expenditure in the country. Therefore the large population of Bihar is, in that sense, not really a market that can be exploited in the near term by any industry producing anything beyond the fundamental necessities.
4. **Dependable supply of water and power:** Bihar seems to be better placed than many other states in view of its geographical advantages reflected in the form of ample rainfall and a sound network of rivers that can be exploited. However on the question of power, Bihar has a poor track record. Bihar, with its current meager demand for electrical power, faces a daily shortage of 1100 MW. Large scale load shedding and over dependence on diesel generators is therefore the norm in this state. Bihar is a power-deficient state with an abysmally low annual per capita consumption of power at 122.11 kWh against the national average of 778.71 kWh. The power deficit during 2010-11 was 44.53 % and it went up to 65% in 2012. The upcoming addition to the generation capacity is only around 2000 MW (NTPC Barh project phase I & II combined). Out of this half would go to the national grid. Hence even the proposed capacity addition would just about meet the present needs leaving very little to spare. In such a situation, it is difficult to understand how would the state get the additional power that would be required by industry?
5. **Well developed logistics network:** About 77% of roads in Bihar are rural roads unsuitable for large scale exploitation by industry. Moreover, according to a report only about 50% of the roads are all weather, surfaced roads. The civil aviation infrastructure in the state leads much to be desired. There are only two fully functional airports namely Patna and Gaya in the state. And, both these airports are severely resource constrained. Railway network in the state is relatively better than road and air transport infrastructure. All the important places in the state are well connected through railway lines.
6. **Well developed network of support industries:** There are no ancillary industries worth their names in Bihar. As a result, all the industries that come up in Bihar would either have to set up their own feeder units or rely upon import. This would adversely affect the RoI for any investment made in Bihar.
7. **Easy accessibility of credit:** Credit is not a state subject hence there is not much that a state can do directly on this front. However, there are important ways by which state Governments, even though they don't own the banking channel, do play a significant role in enhancing the credit infrastructure for domestic industries e.g. setting up of state industrial finance corporation. Whatever be the option selected by the State Government, what stands out is the fact that banking channel is unwilling to lend its money to industries in Bihar. In fact, as per the report of the SLBC, in 2011 not more than 36% of the total deposits mobilized in Bihar were disbursed as credit to local industries. So, availability of credit is certainly not a factor that is going to encourage potential investors to invest in Bihar.
8. **Excellent law and order and policy regime:** Post the split of NDA in Bihar, Nitish Government in order to build a vote bank of its own, has shown a readiness to mingle with many of the shady elements of the last regime. If this continues then it is unlikely to send positive signals to the investors. On the question of a predictable and favorable policy regime, Bihar today definitely seems to be much better placed. However, the only question is can Nitish sustain this

in view of his now diminished strength in the assembly? In this context, it is important to take note of the following factors:

- **Inability of Nitish to build a dependable vote base of his own**
- **A relatively eventless second term**
- **Rising clout of elements of the old regime**

Based upon the above analysis and in view of the fact that most states in India are competing for the same investible capital, it becomes quite clear that the path ahead for Bihar would not be easy.

Keeping its present resource base in mind and taking note of the present and future demographics of the state, Bihar should focus on **low capital, low gestation period, labor intensive and high multiplier effect industries.**

Comparison of Industries based upon their Economic Impact Multipliers:

Before we actually start identifying industries suitable for Bihar or other states facing similar socio-economic challenges, it is imperative to have an idea about the potentially macro-economic pay-offs resulting from the pursuit of different industries.

Comparison of Industry Economic Impact Multipliers				
Industry	Jobs created per million \$ of investment		Total multiplier	
Industry	Direct jobs	Total jobs	Output	Employment
Aircraft	1.6	9.9	3.0	6.2
Automobiles	0.8	9.2	2.7	12.2
Computers	0.6	8.6	2.8	14.1
Comp. Services	11.5	30.7	2.1	2.7
Iron and steel	1.4	10.9	2.7	7.5
Pharmaceuticals	1.8	10.6	3.1	6.0
Scientific R&D	5.8	19.5	2.8	3.4
Software	1.9	12.3	2.6	6.4

Source: 2010 U.S. IMPLAN Economic Impact Model

Relevant short to medium term conclusions based upon the table above:

Capital intensive manufacturing industries are by and large low in their capacity to create direct jobs per dollar of investment. Services industries are better at creating direct jobs per dollar of investment

Indirect jobs created as a result of investment in manufacturing sector are more than similar investment in services sector

Options available with Government of Bihar:

Given the resource limitations faced by the state and the need to tide over the gigantic developmental challenges facing it, there is a pressing need to delineate the industries that would have to be nurtured as part of the alternative policy.

The right choices, in light of the resource constraint faced by the state, the strengths and weaknesses of individual industry, are as follows:

Education:

According to noted columnist **Lance Dickie** every dollar spent on the university system, returns back to the state in the form of tax revenues of \$1.48 i.e. a return of 48%. Similarly according to **Vermont Business Roundtable** report of 2004, for an investment of \$150 million on higher education, the economy received benefits of \$5-\$7 per dollar i.e. an RoI of 400 - 600%. So, whatever be the final returns, investment in education definitely seems to pay rich dividends.

Some facts about the potential of education sector in India:

According to India Ratings, a Fitch group company, the sector grew at a compounded annual growth rate of 16.5% during FY05-FY12. The higher education (HE)

Periodic Research

segment was at 34.04% (\$17.02billion) of the total size in FY10 and grew by a CAGR of 18.13% during FY04-FY10. The expansion on this scale and the lack of finances available with the Government only means that only a more active participation from the private sector can bridge resource gap. And, within India, Bihar represents really a microcosm reflective of all that is wrong with our educational policy.

Space for Bihar in this sector:

Why can't the policy planners in Bihar aim to capture the educational market within India? As can be seen from the figures cited above, the size of the Indian market itself would be so large that any service provider would find himself profitably engaged by just servicing this segment.

2. Media including Entertainment:

According to various reports like FICCI Frames, PWC report on entertainment industry in India, this industry is growing at a CAGR of above 15%. And, it is expected to continue doing so in the near and medium term.

At the moment, Bollywood is suffering in Mumbai because of the following reasons:

- High cost of Mumbai
- Limited talent pool available in Mumbai
- Misguided taxation policies of Gol

Moreover, almost all the Bhojpuri films and television serials are being serviced the post-production activities level at Mumbai. This by itself is a big market. Therefore, if right policies are pursued, at the very least there is the possibility of retaining that revenue which Bhojpuri industry is providing to Mumbai and additionally of attracting at least a segment of Hindi film & TV related requirements to Bihar.

3. Healthcare:

Two separate reports produced by India Brand Equity Foundation (IBEF) and Overseas Indian Facilitation Centre (OFIC) provide some interesting pieces of information about the Indian health care market:

- CAGR of 15% and size of US\$ 250 billion by 2020.
- Estimated to reach US\$ 100 billion by 2015, growing 20 per cent year-on-year (y-o-y), as per rating agency Fitch.

According to RNCOS report titled 'Indian Healthcare - New Avenues for Growth', India is one of the most competitive destinations with advantages of lower cost and sophisticated treatments. The report further elaborates that several key trends are backing the growth of India's healthcare sector.

Trends and Investments:

As per Venture Intelligence, a research firm, this sector in 2012, received PE investments worth US\$ 1.2 billion. Similarly, according to DIPP, between 2001-12, this sector attracted FDI of around US\$ 12 billion. As per RNCOS report titled 'Indian Pharma Sector Forecast 2014', Indian Pharma sector would continue to have double digit growth in near future. According to Gartner, 2013 saw an IT spend of around 5700 crore by Indian healthcare sector.

As per an RNCOS report, by 2015, the hospital services market would be worth around US\$ 81.2 billion.

Space for Bihar in this sector:

Health care and allied sector of India, as can be seen from various reports like RNCOS and DIPP reports would continue to remain attractive for foreign as well as domestic investors..

This means that there is an urgent need for capacity expansion in this sector. Following areas would drive the investments in this sector in the near future:

- Rising spend of Indians on healthcare
- Medical tourism
- Need for healthcare for the rising population of elderly in the advanced economies
- Need to meet the demand for affordable drugs especially in developing countries

Bihar has a great opportunity to meet these requirements and thereby emerge as an important player in this sector.

4. R & D, IT&ITES (BPO, LPO etc):

Some facts about the R&D space in India:

According to Zinnov Management Consulting, around \$42billion worth of R&D work will be outsourced to India by 2020. According to the same report, in 2012, India had 874 captive R&D facilities servicing MNCs.

This sector would be driven by economics of labour. This means, any place which can offer the possibility of reduction on expenditure on highly skilled manpower, the key component of any knowledge driven industry, would emerge a preferred destination for investments in this sector.

Here too, a glance at the economic policies of various state Governments in India indicates that no one has really understood the fundamentals of *late-capitalism* as described by Ernest Mandel in his 1972 book *Der Spätkapitalismus*. As a result, the policies of none of the state Governments seem designed to take advantage of this particular phase in the history of capitalism. Bihar therefore has an opening here. All that is needed is for the state to make investments to produce the right kind of manpower in large numbers.

Construction:

The way to improve the productivity of agriculture sector do that is through mechanization. However, improved productivity would lead to freeing of labour from agriculture and so, one of the aims should be to create avenues where this newly released and unskilled workforce can be employed. It is here that construction comes to the rescue of policy planners.

In addition, construction is that economic activity which leads to the creation of physical infrastructure which is a sine-qua-non for most industries. Therefore construction does not represent a mere choice but also a compulsion for policy makers in Bihar.

Readymade garments:

Readymade garments industry is another segment which can help policy planners create employment avenues especially for rural women who already possess the basic skills needed by this industry. Women especially the rural women, because of the typical feudal socio-economic conditions prevalent in many parts of India are not in a position to opt for employment far away from there.

However, this same social order which prevents large scale geographical mobility of women also ensures that almost all of them have some fundamental skills like sewing, weaving, tailoring, knitting etc. All these are skills that can be used by the readymade garments industry. Moreover, taking into account the clothing related needs of its large population especially the poor ones, there is an imperative for policy makers in India to ensure the availability of low cost and durable clothing for its population. This industry in that sense ensures the following:

Bihar can therefore easily emerge as the hub for this industry in the eastern parts of the country.

Agriculture:

The goal of any sound agricultural policy should be to improve the productivity of the sector. Umpteen number of studies have shown how improvements in productivity of agricultural leads to fastest rate of decline in absolute poverty. The most chronic problems facing Bihar's agriculture have their roots in the following:

- Lack of dependable irrigation facilities
- Lack of sufficient power supply to agriculture
- Lack of credit for agriculture

Lack of marketing network to sell the produce

Therefore any meaningful agricultural policy must aim to attack the above mentioned factors afflicting the agriculture sector in Bihar.

Pre-requisites for the economic reforms to work:

Periodic Research

At present the biggest economic actor on the scene is the state itself. Therefore, to begin with, the state would have to reform itself. Now, there are two aspects of the functioning of a state namely **legislation and administration**.

A closer look at the reform effort in India reveals that it has been largely focused on the legislative side with very little effort on the administrative part. Having travelled thus far on the road to legislative reforms and still not having reached the desired goals, it is not so difficult to conclude that we need some serious catching up on the political and administrative reforms. Some of the questions that would need to be taken up in this context are as follows:

Delineating a grand narrative:

- The question of identity and destiny

Electoral reforms:

- Defining the role of political executive
- An inviolable code of conduct for political players
- Ensuring fruitful interaction between academia and politics
- Ensuring true democratization of the political space
- Ensuring accountability of political executive

Bureaucratic reforms:

- Defining the role of Indian bureaucracy
- Defining the relationship between bureaucracy and political executive
- Right sizing the bureaucracy
 - How far can one go if one becomes a career bureaucrat
 - What would these institutions do?
 - How would they be different from the existing institutions – Concept of accountability and authority

A larger discussion on the type and extent of political and bureaucratic reforms in light of the questions mentioned above is beyond the scope of an article like this.

Bibliography:

1. W. W. Rostow. *The Stages of Economic Growth: A Non-Communist Manifesto* Cambridge University Press (1960) [2]
 2. P. Baran, E. J. Hobsbawm. "The stages of economic growth" *Kyklos* 14(2) p. 234-242 (1961)
 3. O'Sullivan, A. and Sheffrin, S. M. (2003). *Economics: Principles in action*. Pearson Prentice Hall, Upper Saddle River, New Jersey. 471pgs
 4. *Das Kapital* by Karl Marx
 5. http://planningcommission.gov.in/sectors/agri_html/State-wise%20Estimates%20of%20Value%20of%20Output%20from%20Agriculture.pdf
 6. <http://www.rbi.org.in/scripts/PublicationsView.aspx?id=13611>
 7. <http://www.indiastat.com/agriculture/2/commercialcrops/17188/sugarcane/17207/stats.aspx>
 8. Table 2: State Wise Production Statistics in 2009-10 at <http://www.indiaspend.com/sectors/how-up-beats-maharashtra-gujarat-in-agriculture-productivity>
- Foot Notes**
1. O'Sullivan, A. and Sheffrin, S. M. (2003). *Economics: Principles in action*. Pearson Prentice Hall, Upper Saddle River, New Jersey. 471pgs
 2. R. Conteras, "How the Concept of Development Got Started" University of Iowa Center for International Finance and Development E-Book
 3. Mansell, R & Wehn, U. 1998. *Knowledge Societies: Information Technology for Sustainable Development*. New York: Oxford University Press.
 4. Schumpeter, J. & Backhaus, U., 2003. *The Theory of Economic Development*. In Joseph Alois Schumpeter. pp. 61-116. Available at: http://dx.doi.org/10.1007/0-306-48082-4_3 [Accessed October 19, 2009].
 5. W. W. Rostow. *The Stages of Economic Growth: A Non-Communist Manifesto* Cambridge University Press (1960) [2]
P. Baran, E. J. Hobsbawm. "The stages of economic growth" *Kyklos* 14(2) p. 234-242 (1961)

6. http://en.wikipedia.org/wiki/Rostow's_stages_of_growth
7. <http://www.library.uq.edu.au/ojs/index.php/asc/article/view/1969>
8. <http://people.hofstra.edu/geotrans/eng/ch2en/conc2en/coreperipheryurban.html>
9. http://marriottschool.net/emp/WPW/pdf/class/Class_6-The_Dependency_Perspective.pdf
10. "Dependency Theory: An Introduction," in *The Development Economics Reader*, ed. Giorgio Secondi (London: Routledge, 2008), pp. 58-64
11. http://en.wikipedia.org/wiki/Economy_of_Bihar
12. Government of Bihar Annexure -A, Main Features-Budget 2013-14
13. 'National Professor Project, National Centre for Agricultural Economics and Policy Research, ICAR, New Delhi' by Ramesh Chand, Sanjeev Garg and Lalmani Pandey
14. http://planningcommission.gov.in/sectors/agri_html/State-wise%20Estimates%20of%20Value%20of%20Output%20from%20Agriculture.pdf
15. http://www.ibef.org/download/IBEF_BIHAR_260508.pdf
16. http://www.undp.org/content/india/en/home/operations/about_undp/undp-in-bihar/about-bihar/
17. <http://www.thehindubusinessline.com/industry-and-economy/additional-power-supply-to-light-up-more-areas-in-bihar-this-year/article4326234.ece>
18. http://articles.timesofindia.indiatimes.com/2012-05-07/patna/31609367_1_thermal-power-allocation-of-coal-blocks-damodar-valley-corporation
19. http://www.ibef.org/download/IBEF_BIHAR_260508.pdf
20. Transport infrastructure – Roads – http://www.ibef.org/download/IBEF_BIHAR_260508.pdf
21. <http://timesofindia.indiatimes.com/business/india-business/13-banks-blacklisted-in-Bihar-for-poor-lending/articleshow/17639653.cms>
22. <http://slbc.bih.nic.in/documents/agenda-of-37th-slbc-meeting.pdf>
23. http://seattletimes.com/html/opinion/2021045236_columndickie_higheredeconomicimpact.xml.html
24. <http://www.vermont-colleges.org/Documents/4-2-08%20VBR%20Policy%20Brief%20Copy.pdf>
25. (http://www.business-standard.com/article/companies/indian-education-sector-market-size-to-be-110-bn-by-fy15-113012100537_1.html)
26. http://www.atkearney.com/communications-media-technology/ideas-insights/featured-article/-/asset_publisher/4rTTGHNzcaaK/content/and-action-making-money-in-the-post-production-services-industry/10192
27. <http://hdanv.org/wp-content/uploads/2011/02/Impact-of-Local-Health-Care.pdf>
<http://www.bayareaconomy.org/media/files/pdf/AffordableCareActWeb.pdf>
28. <http://www.ibef.org/industry/healthcare-india.aspx>
29. <http://www.oifc.in/sectors/healthcare>
30. OFIC report (<http://www.oifc.in/sectors/healthcare>),
31. <http://www.rdmag.com/articles/2012/12/expenditure-impacts-us-r-d>
 - a. <http://www.iioa.org/pdf/13th%20conf/Dietzenbacher%26LosR%26DMults.pdf>
 - b. <http://www.eagni.com/fs/doc/publications/rd-tax-credit-report.pdf>
 - c. <http://www.manufacturetxas.org/system/files/Texas%20for%20Innovation%20R.D%20Economic%20Study%20FINAL%20for%20Web.pdf>
 - d. http://www.ipi.org/ipi_issues/detail/drug-importation-and-rd-spending-the-economic-impact-on-marylands-economy
 - e. <http://er.jsc.nasa.gov/seh/economics.html>
 - f. http://blogs.hbr.org/cs/2012/03/is_outsourcing_rd_hurting_us_m.html
 - g. http://articles.economicstimes.indiatimes.com/2012-09-24/news/34062128_1_zinnov-pari-natarajan-advantage-india
 - h. <http://www.genengnews.com/gen-articles/china-and-india-in-global-drug-r-d-outsourcing/4596/>
 - i. <http://www.financialexpress.com/news/r&d-outsourcing-comes-of-age/857865>