Introduction

The Bihar Growth Conference was organized by the International Growth Centre (IGC) India- Bihar in collaboration with ADRI- IGC India-Bihar’s host institution in Patna, a non-profit civil society organization, dedicated to social science research.

The IGC Bihar Growth Conference is a unique event, which brings together a wide range of eminent panellists from academia, government and the private sector. The Conference included thematic sessions involving policy makers, experts and specialists and researchers exploring key ideas of growth.

Day One - 14 December

Welcome Note

Dr. Anjan Mukherji, Country Director, IGC India-Bihar welcomed all the participants of the conference. Dr. Mukherji explained how IGC India-Bihar programme was set up and gave a brief overview of the programme, stating that the intention behind setting up the programme is to undertake demand-driven research for policy makers and other stakeholders to aid and sustain Bihar’s recent growth experience. He commended Government of Bihar’s effort in improving governance through initiatives such as ‘The Right to Public Service Act’ and stressed on the need further improve the quality of public goods and services.

Dr. Mark Henstridge, Acting Executive Director, IGC explained that the idea behind IGC is to engage with decision makers and carry out frontier research that can help them formulate policies that are critical for economic growth. He thanked the government of Bihar for their participation and also acknowledged the role of DFID for its support in a way that allows IGC to be independent in its engagements.

Session 1: Building an Effective Bihar

The conference was inaugurated by Mr. Sushil Kumar Modi, Deputy Chief Minister, Bihar who also delivered the keynote address on Building an Effective Bihar, the inaugural session of the conference on Day One. The inaugural session was chaired by Dr Mark Henstridge. Mr. Modi stated Bihar government’s commitment to improve the quality of governance. He explained how the current government has tried to improve public services delivery through a
wide range of initiatives such as *The Right to Public Service Act, Janta ke Durbar me Mukhyamantri*, better policy design, better implementation and monitoring of the programmes, and strengthening manpower by filling vacant positions within the bureaucracy. Apart from the need for better governance, he identified four additional areas namely- Agriculture, Power, Industrialization and Skill Upgradation of migrant labourers - that are vital for building an effective Bihar. Dr. Shaibal Gupta, Co-Director IGC India-Bihar programme, and Member Secretary ADRI also spoke in this session. He provided a rich historical background of Bihar’s underdevelopment and explained how the current government has learnt from the mistakes made by previous governments by co-opting different interest groups together for building effective institutions for Bihar’s development.

**Session 2: Education Sector Reform in Bihar: The Road Ahead**

The *Building an Effective Bihar* session was followed by a session on ‘*Education Sector Reform in Bihar: The Road Ahead*’. This session was chaired by Mr. Ravikant, Cabinet Secretary, Government of Bihar. Dr. Rohini Somanathan, Professor of Economics, Delhi School of Economics delivered a special lecture on ‘The Privatization of Child Learning in Rural India’ where she showed how even poor families are increasingly choosing private schools over the government run schools although gains from private schools are not enormous. The second presentation in this session was made by Dr. Karthik Muralidhran, UCSD and Dr. Nishith Prakash, Cornell University on ‘Cycling to School: Increasing High School Enrolment for Girls in Bihar’. Their careful empirical impact evaluation of the ‘Mukhyamatri Balika Bicycle Yojna’ shows that this scheme has had significant positive impact on the female enrolment rate and attainment levels. The estimates of their regression analysis suggest that this programme has resulted in bridging a 10-20 per cent of the gender gap in enrolment and attainment. The third presentation was made by Dr. Priya Ranjan, University of California, Irvine on ‘Education policies and practices: What have we learnt so far and the road ahead’. Dr. Priya Ranjan showed that while Bihar’s performance has been satisfactory in terms of raising enrolment rates in primary schools, the performance is weak in both absolute and relative terms when we look at the learning outcomes and schooling inputs.

Dr. Rukmini Banerji, Pratham and Dr. P. P. Ghosh, ADRI, both discussants on the education session, made several valuable comments on the presentations. Dr. Banerji appreciated the Government of Bihar’s initiatives in expanding the educational infrastructure and also identified several paradoxes in Bihar’s education sector that need to be studied by researchers. First, she wondered why is it so that despite a huge increase in educational expenditure and enrolment rates in the last 5-6 years, the attendance rate continues to be dismally low? Second, she exhorted the researchers to come up with a cost effective method for teacher recruitment and training to help the Government of Bihar in its recruitment and training of teachers that they are planning to undertake in the coming years. Third, the age
and grade structure of Bihar is very different from other states in a sense that the age grouping of children within grades is quite mixed, which can have important implications for the learning outcomes of the children. Fourth, the ASER data on learning outcomes suggests that the children of Bihar consistently perform better than others in mathematics. This requires explanation since Bihar tends to do poorly in terms of school infrastructure and other indicators that are important determinants of the learning outcomes. Fifth, the percentage of households who send their children for private tuitions is substantially higher for Bihar than other Indian states. The reasons for high level of private tuitions and its impact on the learning outcomes need to be studied. Sixth, it would be interesting to look at the fact that even though a large number of out of school children have entered the school system, the learning levels have not fallen. Seventh, the Right to Education Act states that children should enter schools at the age of six. However, each year there is a rise by almost 5-10 per cent in the children entering school before this age. It would be interesting to look at the impact of early enrolment of children and their learning trajectory over the later years. Lastly, at present, the education sector is witnessing a large number of administrative reforms. It would be interesting to see the impact of the reforms on the implementation of schemes, flow of money and outcomes across districts.

Dr. Ghosh also made several pertinent comments. He explained how primary schools in Bihar need at least three teachers to carry out basic teaching functions. However, a large number of schools in Bihar don’t even fulfil the critical requirement of three teachers and therefore we do not see much improvement in learning outcomes despite a substantial increase in educational expenditure and better provision of other schooling inputs.

**Session 3: Strengthening Water Resources Management in Bihar**

The third session of the conference was on *Strengthening water resources management in Bihar*. This session was chaired by Mr. Navin Kumar, Chief Secretary, Government of Bihar. Two special lectures were delivered in this session. The first one was by E. Somanathan, Professor of Economics, ISI Delhi on ‘Are Embankments a good flood –Control Strategy-case study of Kosi River’. Results of his empirical analysis reveals that the regularly flooded villages (proxy for villages without embankment protection) are no worse off in terms of mean crop output, agricultural wages and measures of schooling, health and wealth than the control villages that are proxy for villages protected from floods by embankments. The second special lecture was given by Dr. Claudia Sadoff and Dr. N. Harshadeep, World Bank. They presented early findings from a World Bank study, Ganges Strategic Basin Assessment, the first study of its kind to develop basin wide models of the Ganges River. The analyses suggest that reservoirs in Nepal could produce significant hydropower and augment rivers in the dry season. However, they would not be effective in controlling floods in North Bihar. They recommended, instead that cooperative regional flood monitoring, forecasting and
warning systems as well as enhanced embankment management systems are critical to protect Bihar’s flood vulnerable populations.

These presentations were discussed by Mr. D. K. Mishra, Barh Mukti Abhiyan and Dr. Arunabha Ghosh, CEEW, Delhi. Mr. Mishra appreciated Dr. Somanathan’s attempt to quantitatively test whether the embankments have any economic benefits for people. He further explained how the state’s flood control strategy of building more embankments has not been very effective as the flood prone area has been increasing despite a massive increase in length of embankments from merely 162 kms in 1952 to 3630 kms by 2011. Dr. Ghosh also agreed with other speakers on the point that the flood management approach needs to shift its focus towards developing better institutions for managing floods instead of heavily relying on construction based flood control strategies. He also pointed out several Bihar specific issues in the area of minor irrigation that requires more research. One of the issues he highlighted was the poor revenue collection by the Water Resources Department. At present, the total revenue collected is merely 40 per cent of the expenditure that is incurred by the department. This trend is unsustainable and the department should move towards building an efficient delivery mechanism. This would also need skills and training both on the demand (farmers) and supply (department) side to ensure effective management.

Several important questions were raised by the audience after the discussants made their comments on the presentations. One of the questions directed to Dr. Sadoff and Dr. Harshdeep wanted to know the short, medium and long term opportunities for enhancing regional cooperation with Nepal. Dr. Harshdeep responded by saying that while regional cooperation with Nepal can be initiated at many levels, in the short term one could focus on information sharing by conducting joint research at the level of universities and think tanks and move on to governments working together. In the long run, however, one has to look at the institutional solution by forming river commissions. Dr. Sadoff also emphasised on information sharing and suggested that developing Integrated Asset Management System to share embankments maintenance related information and Geographic Information System would have immediate benefits for both Nepal and Bihar.

Mr. Navin Kumar, Chief Secretary, Government of Bihar, before closing the session, noted several points that were relevant for the government. First, he underscored the fact that Bihar needs to develop a ground water management strategy which ensures holistic development of untapped ground water resources in the state. He argued that while there is abundant untapped ground water in north Bihar, the water level has gone down very low in most of the southern districts of Bihar, which should be curtailed. Second, he concurred with Dr. Arunabha Ghosh that developing solutions to water resources management problems requires a multidisciplinary approach.
Session 4: Promoting Agricultural Growth in Bihar

The fourth session was on *Promoting Agricultural Growth in Bihar*. This session was chaired by Dr. N. Vijaylakshmi, Secretary, Department of Agriculture, Government of Bihar who also made a short presentation on the agricultural policies adopted by the government in the last five to six years and on the roadmap that is being prepared by the *Krishi Cabinet*-a committee headed by the Chief Minister that comprises ministers from eighteen agriculturally relevant departments. The first presentation in this session was an IGC funded project on ‘Evaluating the performance of the Kisan credit card Schemes in Bihar’ by Dr. Areendam Chanda of Louisiana State University. The preliminary results of his empirical evaluation suggest that Kisan Credit Card (KCC) seems to have a significant and positive impact on the growth of per capita real state domestic product and depending on the initial level of agricultural productivity some states have gained more than others. His analysis of growth of KCC across districts of Bihar reveals that those districts that had lower level of per capita KCC in 2004 have registered relatively higher growth in KCC accounts in next five years, which seems to suggest a convergence in per capita KCC accounts across districts of Bihar. This presentation was followed by a special lecture by Professor Andrew Foster, Brown University on ‘Are Indian farms too Small? Mechanization, Agency Costs and Farm Efficiency’. Professor Foster presented the estimates, which indicate that while small farms have lower unit labor costs, large farms use substantially less labor per acre, and therefore are more mechanized and more efficient.

These presentations were discussed by Professor Mirtunjoy Mohanty, IIM Calcutta and Professor Chiranjib Sen, Azim Premji University. Professor Mohanty broadly agreed with the main conclusions of Professor Foster’s paper and stressed that contrary to popular perception, increasing agricultural productivity does not necessarily translate into income growth. Professor Sen made several useful comments and emphasised on the need for promoting collective action in rural society to tackle some of the problems that the agriculture sector faces. Professor Foster, while responding to the comments argued that given the fact that small farms are relatively inefficient, encouraging marginal farmers to cooperate and farm collectively would be beneficial as they will be able to reap the benefits of economies of scale.

**Special Lecture Series 1**

The final session of day one consisted of three special lectures, as part of a series of sessions containing lectures by eminent researchers titled *Special Lecture Series I*, which was chaired by Dr. P. P. Ghosh, ADRI. The first special lecture was delivered by Professor Robin Burgess, LSE who presented findings of his collaborative work on the impact evaluation of an entrepreneurship programme for ultra-poor in Bangladesh. The results of randomized evaluation show that this programme is a highly cost-effective way of transforming the lives of the poorest of the poor. The second special lecture of this series was given by Professor Maitreesh Ghatak and Dr. Sanchari Roy. They presented their joint work on the role of
explicit incentives and social identity matching in stimulating the uptake of health insurance under the ‘Rashtriya Swasthya Bima Yojna (RSBY)’. Their findings suggest that villages that have agents who get monetary incentives for spreading information have higher enrolment into RSBY than villages that have flat pay agents. However, monetary incentives are not the only way through which peoples participation in welfare enhancing scheme can be increased, social-identity matching of the agents with beneficiaries can also have a significant impact in generating demand. The third special lecture was given by Dr. Karthik Muralidharan, UCSD. He presented results of the pre-pilot survey to gauge demand for cash transfer in lieu of in-kind transfer of goods under the Public Distribution System (PDS). The results suggest that an overwhelming majority of the respondents showed their willingness to participate in a cash transfer programme that paid them equivalent value of subsidy provided through PDS.

Day Two - 15 December

Special Lecture Series 2

The first session of the second day of conference was Special Lecture Series 2. This session was chaired by Mr. Sanjiv Sinha, Special Secretary, Department of Finance, Government of Bihar. The first lecture of this series was delivered by Dr. Abhirup Sarkar, Professor of Economics at ISI Kolkata on ‘Can Affirmative Action Affect the Targeted Population’. His empirical analysis suggests that the existing practice of positive discrimination in the form of reservation of formal sector jobs reduces their incentive to spend on education and therefore may not have the desired impact on backward communities.

The second lecture was given by Dr. Adnan Khan, Research Network Director, IGC, on ‘Testing the role of Incentives on Tax Inspectors Behaviour: Experience from field experiment in Pakistan’. He presented the design and preliminary results of the project that examines the impact of incentives on tax behaviour of tax inspectors. The incentives include higher wages, output based compensation and rewards for accuracy of tax assessment and citizen satisfaction.

Professor Maitreesh Ghatak had an important question for Dr. Abhirup Sarkar. Professor Ghatak argued that the negative coefficient on the Schedule Caste variable cannot be used to conclude that affirmative action has a negative impact on educational expenditure as the Schedule Caste variable does not quite identifies affirmative action. Dr. Sarkar agreed with Professor Ghatak’s comment and stated that the lack of variation in affirmative action makes it hard to identify it. He said he would work on this and hopefully come up with an alternative way to identify affirmative action.
Session 5: Health and Rural Development: Challenges and Opportunities

The second session of the day was on **Health and Rural Development: Challenges and Opportunities**. It was chaired by Mr. Vijoy Prakash, Principal Secretary, Planning and Development Department, Government of Bihar. He noted that the conference was very important for the Government of Bihar as the presentations and discussions would provide inputs in the 12th Five Year Plan of the state. The first presentation was a special lecture by Mr. S. Selva Kumar, National Rural Health Mission (NRHM) Director, Government of Karnataka on ‘Innovations in Rural Health Delivery in Karnataka’. He discussed 7 interesting innovations that have been carried out in Karnataka recently. These innovations include regulation of transfer of the Medical Officer Act, introduction of FMIS, SMS based mother and child tracking system, mobile health clinics for remote areas, citizen help desk and HIV-RCH integration programme. This was followed by another special lecture by Dr. Vijayendra Rao, World Bank, on ‘Evaluation of Jeevika programme in Bihar’. In his presentation he explained how their method of evaluation plans to integrate qualitative and quantitative approaches to understand the functioning of the programme and study the impact of this programme on wide range of indicators such as – consumption, income, asset holding, empowerment, collective action for better public services delivery. The last presentation in this session was made by Santosh Kumar, Lecturer, Washington University on ‘Women’s Reservation in Bihar and Children’s health outcomes’. The preliminary results from their analysis suggest that political decentralization have had a positive impact on children’s health outcomes.

These presentations were discussed by three discussants- Sanjay Kumar, Executive Director, State Health Society, Bihar; Mr. Sujeet Ranjan, CARE India- Bihar; and, Dr. Suneeta Krishnan, Research Triangle Institute. Mr. Sanjay Kumar made several interesting points that urged researchers and policy makers to rethink models for rural health care delivery. He highlighted the need for political ownership of health programmes, better quantification of ‘economic loss’ due to poor health and need for departmental coordination and integration in improving several health indicators. Dr. Suneeta Krishnan raised three issues for debate and discussion. First, bringing women together as SHGs is a necessary but not a sufficient condition for social change. It is an entry point but it needs to be examined as to what are the other factors that catalyze social change. Second, she suggested the team evaluating *Jeevika* programme should also look into the fact whether there is any backlash against women who participate in the *Jeevika* programme. Third, she raised the issue of persistence of very high rate of maternal anaemia in several states of India including Bihar and hoped that IGC would carry out more research around this problem. Several questions were raised during the presentations. One of the questions for Dr. Vijayendra Rao and Mr. Sanjay Kumar raised an important policy issue-How can the Jeevika model be utilized to improve implementation of health delivery schemes?

Dr. Rao in his response to the comments and questions acknowledged the suggestions made by Dr. Suneeta Krishan and showed their willingness to pursue some of the possible research questions suggested by her in the qualitative part of his study. On the question of how to
utilize the Jeevika model for better implementation of health delivery schemes, he noted that if the schemes of Department of Health are integrated with the Jeevika’s livelihood programme from the very beginning it would result in much better outcomes than the case where there is not coordination among different department about the interventions they wish to carry out using the Jeevika model. Mr. Sanjay Kumar stated that the Department of Health is currently in the process of developing a programme that attempts to provide effective health care services to all the members of SHGs under the Jeevika Programme.

Mr. Vijoy Prakash, Secretary Planning and Development, Government of Bihar made the crucial point that policy implementation can no longer be carried out in Bihar without thorough, rigorous evaluation through all the stages of the policy; from inception of the programme to its final stages of implementation.

Session 6: Fiscal Policy and Financial Management in Bihar

The third session of the day was on Fiscal Reform and Financial Management. Dr. M Govinda Rao, Member of Economic Advisory Group to the Prime Minister, Government of India and Director NIPFP, New Delhi gave a special lecture on ‘Inclusive Development in Bihar: The Role of Fiscal Policy’. He argued that Bihar needs more and better spending to sustain the double digit growth. He stressed the need for generating its own internal revenues by carrying out tax administration reforms so that the government can substantially increase development expenditures. He also suggested that the Bihar Government should form strategic relationships with the Central Government to ensure greater central investment. The second presentation was made by Dr. Sanjay Banerjee, Professor of Finance, Nottingham University on ‘Financial Intermediation and economic development in Bihar’. He raised several paradoxes in the financial sector of Bihar that needs explanation. For instance, the credit-deposit ratio in Bihar has not increased across districts despite the spectacular growth of economy in the last five to six years. The third presentation was made by Dr. Chirashree Dasgupta, Assistant Professor, Ambedkar University Delhi on ‘Setting commercial Tax Targets for Financial year 2011-12: an experiment for government of Bihar’. She suggested tax targets based on economic rationale and administrative feasibility that can help in resource mobilization needed for sustained economic growth.

Mr. Rajit Punhani, Principal Secretary, Commercial Taxes Department and Mr. Rajul Awasthi were the discussants for this session. Mr. Punhani found Dr. Chirashree Dasgupta’s study useful as it provided a scientific basis for setting commercial tax targets as opposed to historical data. However, he explained that the Department could only partially implement it due to resistance within the Department. Mr. Rajul Awasthi highlighted Bihar’s central government’s transfers and need for generating more revenues internally. He also emphasized on the need to widen the tax base as the number of VAT tax payers in Bihar is extremely low compared to other states with similar level of income.

Dr. Mritunjoy Mohanty posed an important question to the panellists on the issue of raising Tax to GSDP ratio- since the state’s ability to increase tax to GSDP ratio is ultimately a
political question, what is the nature of political economy that would allow states to raise the their tax to GSDP ratio?

Dr. Rao responded saying that state’s ability to tax resources is primarily determined by the structure of economy and administrative efficiency of the taxation system. He argued that by improving tax administration and developing better information system it is possible to improve tax revenue over time.

**Interactive policy session**

The *Interactive Policy Session*, the last session of the Conference, was a forum for policy makers and bureaucrats to highlight issues that need to be addressed in the next few years to sustain the growth trajectory of Bihar. This session was also set-up to lead to an interactive question and answer session on the challenges ahead not only from the stand point of policy makers and bureaucrats, but also for all technical specialists, academics and civil society organizations that were attending the Bihar Growth Conference. The session was chaired by Mr. Sushil Kumar Modi, Deputy Chief Minsiter of Bihar. The speakers in this session included policy makers from three departments- Mr. P. K. Shahi, Cabinet Minister, Human Resources Development; Mr. Amarjeet Sinha, Principal Secretary, Department of Health and Mr. Rajit Punhani, Principal Secretary, Department of Commercial Taxes.

The first panellist to speak in this session was Mr. P. K. Shahi. He spoke about the major initiatives that have been started by the Government in the last five to six years and explained how state government’s efforts have resulted in a phenomenal increase in the enrolment rate in schools. The second speaker in this session was Mr. Amarjeet Sinha, Principal Secretary, Department of Health, who spoke on the steps that state government has taken and the impact they have had on major health indicators. He reported that Bihar registered the highest decline in IMR in 2009 and the current figure is very close to national average. Similarly, the rate of full immunization has increased from merely 18 per cent in 2005 to 67 per cent in 2010, which is now higher than the national average of 61 percent. Mr. Rajit Punhani represented the Department of Finance and Commercial Taxes and spoke on the challenge of broadening the tax base to ensure that government revenues see a commensurate increase along with the spectacular growth of state’s GDP. He mentioned one of the initiatives taken by the Commercial Tax Department- Small Dealers Tax Payers Scheme- which tries to bring the unorganized sector under the tax net by waiving tax audits for the small dealers who are willing to pay a fixed amount, Rs. 10000 annually. He reported that contrary to the expectation, the response to this initiative has not been very good and suggested that IGC could look at this problem.

Presentations from the panellists were followed by several comments and questions from the audience. Dr. M. Govinda Rao commented on the Government’s Small Dealers Tax Payers Scheme, about which Mr. Rajit Punhani spoke in his presentation. Dr. Rao argued that a lump-sum tax envisaged in the scheme may not be very effective, instead an ad valorem tax of one per cent would be more advisable. Dr. Nishith Prakash had two questions for the HRD
minister, Mr. P. K. Shahi. First, instead of simply evaluating policies after it is implemented, how can the researchers working on Bihar engage with policy makers during the process of policy planning and design? Second, he wanted to know how the Government is going to meet the challenge of providing secondary and higher secondary schools in next five to six years to substantially greater number of children currently enrolled in primary schools. Mr. Shahi acknowledged the fact that the requirement for new secondary and high schools in coming years is huge and the government is trying its best to build as many new high schools as possible. The government has taken number additional steps such as encouraging more private schools and upgrading many elementary schools into high schools to keep pace with the increasing demand for post-primary schooling. Mr. Shahi also encouraged researchers to help the government in formulating best possible policies given the resource constraints government invariably faces. Dr. Vijayendra Rao wanted to know the steps Government of Bihar had taken in building a Bihari identity that can have returns in terms of higher growth as the results of a study on investing in state identity and economic growth by Dr. Prema Singh seem to suggest. Mr. Sushil Kumar Modi responded to this question stating that the government recognizes the importance of developing Bihari identity and has been actively working on this. While the resurgent growth and improvement in governance has provided people hope and the people should no longer be ashamed of being a Bihari, the government has taken several additional initiatives such as celebration of Bihar Day to rebuild Bihari identity.

Dr. Anjan Mukherji thanked all the ministers and civil servants of Government of Bihar and all researchers and members of the media who participated in the conference; members of ADRI, IGC Bihar team who had to work really hard were also thanked for their sincere support.

**Conclusion**

The Bihar Growth Conference seems to have generated a rich discussion on issues that are critical for sustaining Bihar’s growth. The idea behind this conference was not only to disseminate findings of the projects that are currently ongoing under the IGC Bihar Programme but also to bring the policy makers, academics and members of civil society on a common platform to debate and discuss key developmental challenges for Bihar. The active participation of important policymakers from different departments of the Government of Bihar in all the sessions of the conference has been very useful for IGC to assess the policy relevance of ongoing projects and also identify areas of research that would provide valuable inputs in policy making in the coming years.