

Economic Development in India

A personal view

The first questions that come to the mind when “economic development” is invoked are: What is development? What makes it happen? Most people tend to think of economic development as the features that characterize the developed regions of today, i.e. Western Europe and North America, where the majority of people are perceived to enjoy a high standard of living with access to housing, education, health care, employment and leisure activities. This is one way of seeing development, but the determinants of economic development are still far from being completely identified and understood and there are a lot of views held, some of them contradictory, even among economists. In this introductory article, I present a very brief outline of the evolution of economic philosophy on development, and then go on to discuss the indicators used to measure development, the evolution of India’s economic philosophy and finally where India is today with respect to the Millennium Development Goals (MDG).

I

Evolution of economic philosophy on development

Though, India can boast of having given birth to one of the first widely read economists of the world, Chanakya (350-283 BC), the author of Arthashastra, who laid out the principles of income generation, mode of governance and sustainable development, what Indian students study in universities today as ‘economic development’ is essentially a subject that has been developed in Europe, initially for the European context.

How does development happen? This was the central question asked by one of the founding fathers of modern economic philosophy, Adam Smith, the author

of the treatise *The Wealth of Nations* published in 1776. Smith proposed that it is the invisible hand of the market that guides the developmental trajectory of a country. He argued that if the demand for products and consumer willingness to pay for quality is effectively transmitted to producers through efficiently organized markets then it will lead to an optimal allocation of resources. The role of the state is, therefore, relegated to the management of public services like education, infrastructure, healthcare, courts of justice, national security etc. through the collection of taxes. Such an optimistic view of the functioning of the market was later refined by a series of economists, two of whom are most noteworthy, Keynes and Marx, who argued for a stronger and direct role of the state in the economy. However, a common point of the works of all these economists is their notion of economic development as a Euro-centric phenomenon.

The transposition of this notion of economic development during the 18th, 19th and mid 20th to the Third World, which was largely colonized by one or the other of the European powers, amounted to the policy of “don’t kill the goose that lays the golden eggs”. In other words, for nearly 170 years, till the end of World War II, economic development of the Third World, referred to the optimal management of imperialism, so that the investment of the Colonial State in the colony is just enough to ensure maximal returns from the production or extraction industries in the colony. It must be openly acknowledged that such a strategy led to investment in education, social empowerment, and infrastructure, both physical and institutional (transport, health, justice), in the colonies, doing a lot of good and improving welfare, but it must not be forgotten that such improvements took place under an imperialist regime, where the foreign Colonial state enjoyed economic returns at costs substantially lower than that dictated by the free market.

Thus, the theory of economic development, as we study it today, starts from the decolonisation period, i.e. from the end of Second World War and I propose to present its evolution in four phases.

Phase 1: Debate on what is economic development (1945-1965)

The period of the two world wars and the decade following it, not only witnessed decolonisation and the birth of nation-states in Asia and Latin America, but enormous social upheavals within Europe. Accompanied with much soul searching on the mighty hand of technology (the Atomic bomb), the most cruelly and systematically organized genocide drives in history (concentration camps to exterminate Jews), the division of Europe between East and West, etc. the reconstruction was also accompanied by an incredible gender transformation of the labour market. Women, who had to enter the educational institutions, the government offices and the factories to run the economies during war time, were there to stay, at least in some measure, in the labour markets. Thus, it is not surprising that the notion of economic development also changed radically during this period.

During the initial discussions on what constituted development and how

development should be supported, there were broadly two schools of thought.

The first school, usually referred to as the neo-classical school, focussed on 'revenue generation', either as gross national income or per capita income. It was noticed that developed countries usually had relatively higher total national income and per capita income and that the structure of their economy and trade exhibited certain common characteristics. For example, developed countries usually had a strong manufacturing sector and the manufacturing sector along with the service sector employed more than 60 per cent of the work force, whereas over 60 per cent of the workforce was engaged in agriculture and in the rural areas in developing countries. Developed countries, for the most part, exported and imported a variety of goods, while developing countries mainly exported primary goods, i.e. agricultural products or natural resources and imported finished goods. The central hypothesis put forward by this school was that any policy that increased national income and even more importantly per capita national income, would automatically initiate in its wake the accompanying processes that pushed the country into a trajectory of growth and development.

The second school, loosely referred to as the structuralist school, considered the 'capacity to generate revenue' as the prime indicator of development. In any economy, the capacity to generate revenue is determined by socio-economic parameters such as the literacy rate, life expectations and mortality rate and this meant that the focus was on a larger set of variables.

The advantage of the first approach is its focus on a small set of variables on which there are well established macroeconomics theories, each theory supported by a particular ideological stance on the role of the State and the market. The advantage of the second approach is that it seems more rational and more humane to think the 'human dimension' rather than simply focus on national income. However, there can be no clear theories on how to increase the literacy rate or bring down the mortality rate, other than by direct investment in the education and health sectors. Where is economic policy then supposed to focus: literacy, health, any other variable? What constitutes an optimal allocation of resources?

Phase 2: Debate on merits of different approaches (1965-1980)

During the following decade, a real cleavage began to develop between the two schools and each position began to be associated strongly with an ideological stance, the neoclassical with the right wing and the structuralist with the left wing. So the essence of the argument was the following: Should we put money in sectors that were growing the fastest in an economy so that national income is maximized or should we invest in increasing the capacity to grow by investing in infrastructure that improves the productivity of workers? Should we focus on improving exports by investing in sectors that exhibit a comparative advantage, e.g. primary products or raw materials and unfinished goods? Or should we try to improve productivity in all sectors? There were also heated debates on the degree and nature of government

intervention. Many questions were raised on whether markets were sufficient to induce poverty alleviation even if they allocated resources efficiently. India was among the set of countries that largely accepted the structuralist way of thinking and opted for strong State intervention in the allocation of resources as will be detailed later.

Phase 3: Shift of debate: Which variables impact development the most? (1980-1995)

By the end of the 1970s though some economists and policy makers argued for one or the other approaches as being better than the other on ideological grounds, a majority recognized the need for a two-pronged approach or a mixed strategy. This mixed strategy called for application, on the one hand, of standard economic theory to boost supply and demand with more or less direct state intervention depending on the context under question, and on the other hand, an exploration of variables that impact the capacity to produce. This called into question the optimal role of exogenous variables like geography; variables which are fixed in the short run and therefore could be considered exogenous in the short run like social norms, culture, etc. and endogenous variables like mode of governance, institutions, regulations, international conventions, expectations etc. The debate then shifted to which variables impact national income in the short run and/or the capacity to increase national income in the medium run and how it occurs.

Phase 4: Slow consensus on strategic foundations of development process (1995-today)

While the nature of the variables that impact development is still a matter of ongoing research, in terms of ideology, during this period the distinction between practice and theory began to blur, due to a series of world events such as the adoption of liberalisation and market capitalism by China, even under the ideological umbrella of communism, the adoption of capitalism by the former Soviet Union, the fall of the Berlin Wall and the breaking up of Eastern Europe.

An entirely new set of opportunities and problems also came to be highlighted with a steady stream of incremental innovations and a few radical technological and regulatory innovations in knowledge intensive sectors that provoked profound changes in the mode of production. Some of these are described as follows:

- World-wide harmonisation of regulation (trade and intellectual property rights) and cost-reducing innovations in transport: Both these factors have led to a phenomenon referred to as ‘globalisation of production’ which means that the variety of markets from which inputs can be procured and in which outputs can be sold has increased exponentially. Thus, the division of labour within/between firms and the complexity of the production system of firms have increased greatly. While globalisation has increased employment and income, it has also generated a set of losers in the game. Given that the redistributive

mechanisms are not efficient, this has created new marginalized groups.

- Digitalisation: The digitalisation of information and the opening of the internet economy has changed the mode of communication within organizations and between organizations, and thereby the mode of production in many sectors. For instance, this conference has been made possible because of communications between the partners via skype and email. Such an organization would not have been possible 20 years back!
- Innovations in the food, health and environment sectors: Biotechnology, by permitting the creation of new plant varieties and new drugs through rational design, has opened limitless possibilities (in theory) for the creation of new products through the manipulation of living cells. Nanotechnology promises similar dreams from inorganic matter.
- Global environmental problems: Freak weather, global warming, water pollution, access to water, waste management, risks posed by the biotechnology and nanotechnology are all considered to be as important or even more important than traditional development problems such as poverty. If we do not find solutions, we are putting the lives of our grand children and great-grand children in great peril.

In the above context, the pressing problems of today combine with old problems like poverty with a new perception of other complementary problems like food security, health and environmental and empowerment. Even as globalisation marches on relentlessly, there is an increasing focus on the 'local context' as the unit of analysis for understanding and policy impact, because of the enormous heterogeneity of problems within the same nation or region. As focus shifts from a universal domain to a specific context, it is very clear there can be no ideology that is universally optimal for all contexts. A solution has to be designed differently for each context depending on the objective desired. Given the context, the objective and the constraints at hand, in terms of resources and a calendar, the solution can call for more or less direct intervention by the state, and a change of regulatory norms. This also means that the agents constituting and giving life to this system, their objectives and possible strategic actions are clearly identified. In this case there is no single most important economic actor since the outcomes of the actions of the different economic actors are interdependent, though some may be more powerful or have a better bargaining position than others. The state has an important role but it is not the only significant economic actor that is responsible for the outcome of development.

II

Indicators of economic development

Initially the providers of data on the economy were public agencies. Additional national and international agencies were set up during the post-second world war for comprehensive data collection on developing countries. Currently, the most

widely used indicators at the international level are those provided by the World Bank and the United Nations Development Programme (UNDP). At the national level in India, we have the Economic Survey published annually by the Government of India and the surveys undertaken by the Central Statistical Organisation of India (CSO). Various other public and private organizations also exist for the collection of data at a sectoral level.

A recent phenomenon of the internet age is the booming market for information. Now there are innumerable private organizations that conduct surveys of all sorts and sell the information as a tool for strategy formulation to firms, NGOs, academics and public agencies through the internet.

There are also journals and reports by NGOs of all kinds flooding the internet on technological and economic problems that is absolutely free. A major problem with such information is that there is no standardization or peer review and therefore the credibility of such sources is not evident.

To conclude, the market for information is now supplied by both public and private organizations for a variety of prices depending on the type of market involved.

Let us now come to the information products, namely the indicators. Indicators of development evolved along with the evolution of the economic philosophy on development. The first indicators focused only on economic and demographic variables such as income, population, per capita income, value generated by different industrial sectors, employment in different industrial sectors etc. and tried to relate structural features to income growth.

Then as definitions of development embraced the capacity to generate income, information on other indicators of development such as consumption poverty, mortality rates and literacy rates began to be gathered. These were eventually included by the UNDP in an indicator called the Human Development Index developed by the Nobel Prize laureate Amartya Sen in collaboration with a set of other economists.

Alongside, right from the 1980s an extensive literature on the mathematical and statistical properties of indicators began to emerge. Questions were also posed on the value of the indicators. For instance, there were questions about “what is meant by literacy?” and whether having finished school is sufficient proof of being literate. For instance, in the US, there are students who have left school and still cannot read or write. Then there is the question of ‘functional literacy’ i.e. having the minimum amount of thinking skills. I have been to schools in slums where 8-10 year olds when asked to draw something, just anything, simply stare at a piece of paper. Should the ability to read and write be considered enough for literacy in the absence of minimum analytical and creative capabilities?

Finally, as analysis of development became more context-based, indicators began to develop on specific developmental targets. In 1996 the ‘Development Assistance Committee’ of the Organisation for Economic Cooperation and Development

(OECD) published a document on International Development Goals that stirred a lot of interest. Pushed by some extremely dedicated individuals, these were eventually adopted by the UNDP in the UN Millennium Declaration introduced in the first UN Millennium Summit in September 2000 that attracted the largest number of world leaders in history.

The UN Millennium Declaration proposes eight essential objectives, referred to as the Millennium Development Goals or MDG to be attained by 2015. It consists of eight goals: eradication of extreme poverty and hunger; universal primary education, gender equality and empowerment of women; reduction of child mortality, improvement of maternal health, combat of HIV/AIDS, malaria and other diseases, environmental sustainability and a global partnership for development. To realize these goals there are 18 specific targets and 48 indicators measure the level of attainment of the MDGs. For the first time in our history, a set of well defined goals, understandable to all, was adopted jointly by the world communities.

The MDG embodies the entire evolution of the economic philosophy on indicators of development, and at the same time, represents a clear break with the past in some ways. First, it includes standard revenue indicators (goal 1 on reduction of poverty and hunger), along with variables that impact the capacity to produce even in the short run (goals 2 to 5 that deal with education, health and empowerment). Second, it also recognizes institutional and cultural variables that impact development (goals 6, 7 and 8 that deal with HIV, environmental security and international partnerships). Third, for the first time policy is set in a managerial mode to achieve a set of targets within a specified time framework. Fourth, again for the first time in history, a global public policy is agreed upon by so many countries. Fifth, it recognizes that development is a game in which NGOs, civic society associations and citizens must also participate.

Nevertheless, four major problems have already been noted with the MDG indicators:

- Immeasurable indicators. For example for goal 6, the target is to have halted by 2015 and the incidence of HIV, malaria and other major diseases such as tuberculosis and begun to reverse the trend. But it is not even possible to measure the incidence of diseases such as tuberculosis because the gestation period varies. Therefore, it is not possible to plan a strategy to reduce incidence of disease by 50 per cent when the incidence of the disease is not known.
- Lack of data: There is no comprehensive data on most goals. It is difficult to know exactly where a country stands with respect to the MDG, and plan a strategy. For example, one of the targets for goal 7 on environmental security is to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. But in most developing countries, including India, comprehensive data on access to toilets in rural areas or urban slums is

not available. Therefore, data collection must precede strategy formulation.

- Translation into a rational resource allocation strategy: Even if we had complete information on the MDG indicators it is not clear how resources should be allocated to achieve them as the different goals compete with one another for resources, even when they are interlinked. It must be noted that resource allocation by politicians takes place in a game, where the first and foremost objective of the politician is to be re-elected. Of course, it helps to have contributed to visible development but what would help more for re-election? Visible investment in roads, technology parks or software companies or invisible investment on schools, toilets and hospitals? It is a difficult choice..

III

India's developmental path

The trajectory of India's developmental path since independence has at least three distinct phases.

1947-1980: When India attained independence in 1947, the first concern of its policy makers was to invest and create capacity in heavy industries such as power, iron and steel, machinery production and chemicals. In other words, the need of the hour was to develop the capital goods industry that would form the foundation of industrialization. The private sector was left to cater to the demand for consumer durables and non-durables. However, the government helped create industrial competence in two ways. It invested in the creation of a network of public universities and institutes for advanced research to supply qualified labour to the private sector and public sector enterprises. Furthermore, in a foot-dragging imitation of what policy makers in Japan, China, Southern Europe and USSR had adopted long back, the patent system inherited from the British was changed in the Indian Patent Act to 1970 to recognize only process patents for food, medicine and chemical processes. This policy experiment resulted in the exponential growth of firms in the pharmaceutical sector and the successful adoption of the Green Revolution as well as the creation of many new hybrid plant varieties.

At the same time, Indian industry grew under severe regulatory constraints in order to maximize poverty alleviation and access facilitation of essentials to the poor. The Indian government presided over what was in many respects a 'closed command economy' as distinct from an 'open market economy'. Five major industrial policies discouraged foreign direct investment, permitted the emergence of Indian industry while channelling the business vision of Indian firms towards very short run profits with the least R&D investment. First, ceilings were set on the overall profits of companies in many sectors. Second, the FERA (Foreign Exchange Regulation Act of 1973) restricted foreign equity holdings. Third, the MRTP (Monopolistic and Restrictive Trade Practices Act of 1969) while attempting

to ensure against undue concentration of market power also put a brake on the growth of firms. Four, a ‘license Raj’ (or rule of the license regime) stipulated that licences had to be obtained from the concerned ministries for any expansion in the manufacturing base, imports and exports. In such a context, industrialists were deeply involved with getting permits, licenses, and quotas and clamouring for fiscal and customs duty concessions for themselves rather than formulating strategies for innovation or growth. Five, final market prices were controlled in a number of non-luxury goods sectors, such as pharmaceuticals in order to facilitate accessibility to the poor.

Indian science also evolved by leaps and bounds and became the pride of India, as it successfully developed the nuclear bomb, satellites and the super computer. Furthermore, Indian policy makers initiated the most extensive and intensive program of positive discrimination in public (educational, research and administration) institutions by introducing reservations by quotas for citizens belonging to backward castes. This in turn fuelled a competition for attaining the label of ‘backward castes’ among various population groups and led to a hierarchy of ‘backward caste’ identities (such as backward caste, very backward caste, tribal, etc.) with associated benefits. It also provided an additional populist instrument for politicians to mobilize votes and the scope of reservations steadily increased over the years.

This has had both a positive and negative impact. The positive impact is to incorporate a large number of the backward caste community into academic and research institutions as well as all public offices, which might have been much slower through standard competitive selection processes. The negative effect is an increased marginalization of those who cannot qualify for being a backward caste member and who do not have enough money to enter into expensive private schools or who do not have the intellectual capital to enter into the elite poles of excellence in India (that are mostly based on merit) or leave India for the US or UK (where caste is not recognized as a criterion for entry into a university).

1980-1990: This can be considered as the period of strategic positioning of different power groups in India without much change in the economic philosophy. Political parties, industries, academic institutions and civic associations matured. It was increasingly felt that the free market should be promoted more within India, while the fight on poverty continued. This change of mood owed a great deal to happenings outside of India. The communist ideology that had earlier sustained Russia, Eastern Europe and China gave way to pragmatic capitalism in various degrees. The Berlin wall came down and Eastern Europe broke up. China emerged as an interesting case study of a pragmatic adoption of capitalism combined with continuing redistribution of wealth and ruthless authoritarianism.

1990-2007: India embraced economic reform and started introducing

liberalisation policies from 1991. Industrial licenses for expansion of the manufacturing base were abolished. Government regulation via manufacturing and marketing licenses only served to monitor the quality and safety of the final products arriving in the market. Price control was eased in many cases, including drugs. Procedures to obtain foreign technology agreement (FTA), imports and exports were greatly streamlined and 100 per cent foreign ownership was permitted in most sectors. Excise duty was slashed on imports, while a value added tax was added on domestic product. In order to maximize the gains from globalization and promote its exports, India signed the Uruguay round of GATT, which concluded in 1994, to become a member of the World Trade Organization (WTO). India was thereby obliged to meet all provisions of the Trade Related Aspects of Intellectual Property Rights (TRIPs) by 2005 including a return to a uniform product patent regime in all manufacturing sectors.

Though at the time of initiation, the New Industrial Policy invited a lot of criticism, history has proved its usefulness. Production, exports and imports have increased greatly in many sectors. Between 1991 and 1999, the proportion of the population under the poverty line decreased from 37.5 per cent (using headcount of consumption poverty) to 26.1 per cent when the population itself was growing at 1.5 per cent and the gross domestic product has grown at 4 per cent or more since 2000. TRIPS has also been viewed with a jaundiced eye by many in India and other developing countries. Its protagonists claim that it will stimulate foreign direct investment, investment in R&D and lower prices through increasing market supply. Others point out that foreign direct investment is not increasing much because of infrastructural problems, shortcomings of the Indian business environment and low market prices needed to ensure accessibility. Indian pharmaceutical and software firms continue to boost national pride as they venture more into international markets and establish production and R&D bases in the US and Europe.

IV

Where is India with respect to MDGs?

The Indian government has confirmed that the attainment of the MDG is a national priority, but it has not taken any clear steps in terms of investment allocation towards this end. There are a number of national programmes that touch upon each of the MDG goals but implementation, delivery and accessibility remain the weak points. However, this is not just an Indian problem. In September 2005, the United Nations hosted a Millennium+5 Summit to evaluate the progress towards MDG and it became evident that many governments had no clear ideas on strategies to attain the MDG. One major problem seems to be a lack of data.

Some preliminary results on India's progress in attaining the MDG are presented in Bajpai and Goyal (2004) and Bajpai, Sachs, Volavka (2005). According to them India is on track for poverty reduction, providing access to potable water

(both urban and rural) and urban sanitation. However, they demonstrate that urban areas in India are in a better position than rural ones with respect to most of the targets including poverty. A worrying matter for empowerment of women is that all states except Kerala, the ratio of females to males is less than 1, indicating a clear anomaly.

V

Conclusion

This paper has, to begin with introduced the concept of development. The nature of the global debate around it, and on how development should be encouraged, is a long standing one, starting from the 1950s. From a near bi-partisan view, today the lines of ideological divide are far more blurred, as both the merits of policies that increase income generation and the merits of policies that provide more economic opportunities to citizens are recognized. It is widely accepted that the most pragmatic approach should be context based and the solution should be designed in accordance with the objective desired, the constraints faced and the rationalities of the economic actors comprising the system defining the context.

The evolution of indicators to measure the level of economic development started with measures of the different kinds of revenue generated by a country, and the shares of these different activities. Then more indicators were formulated to measure not only income, employment and price variables but also the capacity to generate revenue measured in terms of education and health status. Finally, with the MDG goals we have gone on to include measures about where we are with respect to a set of specific targets or development outcomes. These are not perfect but their usefulness for understanding and the formulation of economic policy is completely acknowledged and the subject of indicators remains an area with a lot of scope for further research.

India is growing very well in terms of GDP but unless this surplus revenue generated is redistributed and invested well, essential development goals will not be realized. We can all contribute towards the developmental process in our own ways. Citizens can pay taxes and make donations (of time and money) to worthy causes. Academics and students can generate data on the state of the economy at the micro-level and share it as open-source instead of trying to sell it. NGOs can implement developmental projects. Firms can directly create employment and income and indirectly, through investment in socially responsible initiatives, improve the world as well as their own reputation. Finally, the State and Charitable Foundations can act to re-distribute income and allocate funds to areas which are not profitable for entry by firms. Thus, each economic actor has a role to play in the development process and the outcome will be the shared responsibility of all.

**Institut National de la Recherche Agronomique (INRA) 65 Bd de Brandebourg, 94205 Ivry sur Seine, Cedex, France and Ecole Polytechnique, 1 Rue Descartes, 75005 Paris, France.
Email : ramani@ivry.inra.fr*

Notes

¹ I define ideology as a set of assumptions that are subjective, in the sense of not being universally accepted as truth or being self-evident.

² http://www.sasurf.undp.org/mdgs/docs/MDGs_Indicators.pdf

³ Bajpai, N., Sachs, J. D. and Volavka N., (April, 2005) “India’s challenge to meet the millennium development goals“. CGSD working paper No.24, The Earth Institute at Columbia University.

⁴ Website:<http://indiabudget.nic.in>

⁵ Bajpai, N., and Goyal, S., (January, 2004) “India: Towards the millennium development goals“. CGSD working paper No.3, The Earth Institute at Columbia University.
