

Economic Transitions towards Sustainable Development for India Report

Azim Premji University, Bengaluru
8th April 2017

Event Overview

Development Alternatives (DA) organised a *trialogue2047* at Azim Premji University, Bengaluru on 8th April 2017. *trialogue 2047* is a series of discussions organised by DA, to explore how India can achieve its vision of becoming a green, inclusive and resilient nation by 2047, that is, after 100 years as an independent nation. *trialogue 2047* brings together distinguished speakers to address issues like poverty alleviation, participatory policy making, resource efficiency etc. The discussion held in Bengaluru was focussed on 'Economic Transitions towards Sustainable Development for India'. The three speakers for the discussion were Mr A.R. Shivakumar, Dr Jyotsna Jha and Ms Chitra Vishwanath, with Ms Zeenat Niazi as the moderator.

Speaker Profile

- Mr A. R. Shivakumar, Principal Investigator – RWH and Senior Fellow at Karnataka State Council for Science and Technology (KSCST), Indian Institute of Science, Bangalore
- Ms Chitra Vishwanath, Managing Director, BIOME Environmental Solutions Private Limited
- Dr Jyotsna Jha, Director, Centre for Policy and Budget Studies
- Ms Zeenat Niazi, Vice President, Development Alternatives (Moderator)
- Mr Ramakrishna NK, Co- founder & CEO, Range De (Key Participant)

Context

With a Gross Domestic Product (GDP) growth rate of 7 per cent in 2015-16, India is touted to be the world's fastest growing major economy (World Bank, 2017). However, paradox of India's story is that this economic prosperity has come at the cost of social inequalities and environmental degradation. India ranks a low 131 among 187 countries on the Human Development Index (HDRO, UNDP, 2016). According to the Global Footprint Network, India's ecological footprint exceeded its bio-capacity by 160 per cent in 2012. To make matters worse, India's development faces a very real risk of being impacted by climate change. India stands 18th in the

world on the Climate Risk Index with the score of 38.50 (Kreft & Eckstein, 2013), indicating the high level of exposure and vulnerability to extreme events.

In order to move towards sustainable development that provides better quality of life for all within the ecological limits of the planet, there is a need to revamp the principles governing our economic systems; and define a new economy that is green, inclusive, fair, and transparent. We envision this economy to be more resilient, equitable, low-carbon, resource efficient, and socially inclusive; where public and private investments drive growth in income and meaningful employment and reduce carbon emissions and pollution, enhance energy and resource efficiency; and prevent the loss of biodiversity and ecosystem services.

In order for this transition to effectively take place, the following systemic changes are crucial. These are:

- **Measuring What Matters:** We need to shift corporate, national and global measures of success beyond profit or GDP alone and instead make people's wellbeing and the health of the planet the yardstick of progress.
- **Influencing Financial Flows:** We need to accelerate and widen the scope of financial sector reform so that financial markets are guided by long-term goals, which redirect capital flows towards greener initiatives; and ultimately towards building greener and more resilient economies.
- **Greening High Impact Sectors:** We need to change the production systems that use human and natural resources as inputs and impact them by their outputs. In the Indian context, these sectors are agriculture, manufacturing, construction, power, transport and tourism.
- **Investing in People:** We need to reduce inequality and unemployment that does not utilise human potential and stunts innovation; and redistribute our natural and financial capital in a manner that creates a more diverse economy capable of providing stable and greener job prospects.
- **Managing Natural Systems:** We need to recognize our dependence on nature for food, clean air, water, energy and raw materials; and reflect this dependency in our economic activities.

India is also amongst one the 193 member nations which adopted the United Nations sponsored Sustainable Development Goals (SDGs); and in principle aim to

achieve the 17 Goals by 2030. These goals address various socio-economic and environmental outcomes from food security, employment, basic need access to water, energy, education and good health of environment including terrestrial and water ecosystems. It also includes goals on economic growth, urbanization and industrialisation to ensure alignment with the natural and human endowments available for the well-being of people and planet. At the 2015 United Nations Climate Change Conference (COP 21 and CMP 11), India committed to transition to low carbon economy with specific targets on climate mitigation and adaptation. India aims to reduce emission intensity by 33-35 per cent by 2030 compared to 2005 levels. It aims to produce 40 percent of energy requirements through non-fossil based source of energy. India also promises to create an additional carbon sink of 2.5 to 3 billion tonnes of carbon dioxide equivalent by 2030 through additional forest and tree cover; and develop robust adaptation strategies for agriculture, water and health sectors. For India to deliver on its commitments on SDGs and as a signatory to Paris Agreement at COP 21, economic transitions are the most urgent, critical and important means of going ahead.

In order to galvanise the national political will to make this change, it is imperative to first build a shared national narrative on India's transition to a new, just and green economy. We hope to do so through multiple stakeholder consultations across the nation. The purpose of this exercise is to build a shared narrative of the economy that the country collectively aspires for and that takes care of people and planetary wellbeing. So far, consultations around building this green economy have taken place in Lucknow (Uttar Pradesh), Gangtok (Sikkim), Pune (Maharashtra) and New Delhi with participation from civil society and non-governmental organisations, Micro Small & Medium Enterprises (MSMEs), think tanks, researchers and industries.

The discussion in Bangalore was focussed on the sectoral issues of construction, water and education; and aimed to capture the larger picture on production systems, consumer patterns, market mechanism, policies and finance, that are required to make the transition.

Production Systems & Technology

Changing the way we produce plays a key role in the transition towards a greener economy. In this context, Ms Vishwananth advocated that materials should be sourced locally in order to move towards more sustainable production. Sourcing materials locally has the dual advantage of reducing transportation costs as well as stimulating local economies. Mr Shivakumar strongly agreed with this point and applied it to the sourcing of agricultural produce as well. This argument, however,

was contested by an audience member who felt that often certain goods are produced as a monopoly in certain areas which do not tolerate competition from

other areas, forcing producers to travel further away for distribution. Ms Vishwanath, added that we need to change our lifestyles to the extent that we only consume which we can sustainably produce.

Mr Shivakumar recommended strengthening India's MSME sector as a means to simultaneously achieve India's production targets and reduce social inequalities. Citing the example of poor land use practices leading to increasing inequalities among farmers, Mr Shivakumar recommended reviving traditional practices, as he thought many of the technical solutions offered these days are catered only to a small section of society who can afford it. The recommendation was seconded by an audience member who claimed that India is blessed with many traditional practices which if revived can largely challenge some modern unsustainable technology's, and lead to better management of our resources.

Consumption Patterns & User Behaviour

Ms Vishwanath discussed the factors that made her ecologically friendly architecture practice-- a success, thereby, providing lessons to scale up green construction practices. She attributed a large part of her success to good and workable designs, which she considered key for consumer acceptance of environmentally friendly alternatives. She also emphasized the importance of quantifying the benefits of these alternatives. For example, she has worked out the added long-term monetary benefits of using earth as a construction material versus conventional materials. "A balance must be struck between ecological and economical", she said. As a large part of production is driven by consumption, Vishwanath laid stress on the need to change consumer behavior. She does this by educating their clients about the finite resources available on the planet and the implications of over-consumption. For example, she encourages its clients to avoid using slate. Slate, is a very light material ideal for roofing, however it's mining has serious environmental impacts in the state of Himachal Pradesh.

Ms Niazi added to this discussion by suggesting that mainstreaming consumer labelling could be a way to bring about changes in lifestyles, which in turn impact production practices. She also pointed out that our ecological footprint is much higher than our county's bio-capacity. Ms Vishwanath was of the opinion that we cannot increase consumption indefinitely. She talked alternative models of growth, in particular, de-growth which is an ideology that believes in anti-consumerist and anti-capitalist ideas. She cited Dr Andrea Rigon who has made 19 policy suggestions for

transitioning to a de-growth paradigm. These include: making banks liable for the environmental impact of their credits, shifting taxation from labour to material consumption, implementing an inheritance cap etc. (The Full paper can be accessed at: <https://www.degrowth.de/en/2017/03/degrowth-politics-and-policies-for-degrowth/>).

Mr shivakumar felt changing consumer attitudes would also play a key role in addressing equity issues. He highlighted the practice of hypocritically asking rural areas to adopt eco-friendly practices like using cow-dung for fuel, which are never expected from urban areas. He suggested to promote good case practices. Ms Vishwanath added here the example of a well-managed lake close to Bengaluru. This lake is managed with the joint cooperation of the pollution department, fisheries department, and local communities as a result of which it is able to supply clean drinking water to a nearby well.

Dr Jha on the other hand talked about the role of education in bringing about a change in consumer behaviour. She started by emphasizing that a change in our economies require a unified vision for people to rally towards. It cannot take place in isolated silos. Creating this vision is very difficult in a country like India, which has huge inequalities and diversities. It is these inequalities and diversities that create the contradiction between development and growth. Education can be used as a tool to change mind-sets and generate societal respect and value for diversity. It can help create a common vision of progress in the country. Dr Jha emphasized that only a common vision can generate the commitment required to bring about a transformation as large as the one required for a transition to greener economies. A change in mind-set is also required for consumers to demand measuring and valuing things that matter. For example, the impacts of demonetization which affected the lives of the poor a lot more, than the country's GDP, are not reflected in our national accounts, because there is little demand or pressure from the public. Dr Jha added that as Ms Vishwanath rightly pointed out, quantitative analysis of alternatives is vital to muster commitment and generate a demand for their uptake. Often people talk of sustainability because it is fashionable and not out of true commitment. Dr Jha shared her observation that investing in education yields manifold returns. "Education is more than classroom learning It is valuing justice, valuing people, valuing nature, and valuing the wellbeing" she claimed. Dr Jha concluded by suggesting that India needs better and more higher education institutes in addition to primary education institutes that are commonly demanded which can offer diverse disciplines. However, she cautioned that these must be rooted in strong fundamentals. A large university network she felt was a basic requirement to create a knowledgeable and progressive society. At the end of this discussion, Ms Niazi commented on the potential of integrating sustainability into the increasingly strong nexus of industry, market and education.

Market Instruments

Dr Jha pointed out that market forecasts play an important role in what is produced. Mr Shivakumar suggested that better market forecasting and information can help producers especially farmers maximize profits and reduce wastages.

Mr A R Shivakumar explained how wrong incentives in the market are preventing the uptake of good practices. He cited that in Bengaluru, the poor pay over a thousand times more for water than the rich. He stated fairness and equity need to be the guiding principles for the valuation and use of our water systems. Unfortunately, the current system has incentivized unsustainable behavior. Rich localities in Bengaluru pay as low as 8-9 rupees for 1000 liters of water. At these low prices very few residents are keen to uptake eco-friendly practices like rainwater harvesting; the benefits of which Mr Shivakumar has demonstrated by running a water positive home for over 22 years, i.e. he has been self-sufficient in generating water for his domestic needs from rain water harvesting and has not paid the corporation for water in 22 years.

Role of Policies and Implementation

A member in the audience questioned the role of policies in accelerating the transition and the effectiveness of policies and their implementation in India. While there was near unanimity about the fact that India needs to more effectively implement its existing policies, some expressed her opinion that India needs to develop stronger policies, in view of our current policies, which may have good intentions but are weak in expressing how these intentions will be met. Mr Shivakumar pointed out that policies and plans in India are made by officials and bureaucrats, and are often not grounded in solid scientific theory. Ms Niazi questioned how different our economies would be if we truly measured what matters. For example, she claimed that our industrial landscape would look very different, if our industrial policies focused on reducing inequalities rather than generating GDP. Mr Shivakumar added that policies are merely ways to implement laws and that the need of the hour is in fact better legislations.

Financial Inclusion

Ms Niazi asked Mr Ram, CEO of Rang De, a crowd-funding platform that provides microcredit to low income entrepreneurs, to share his views on the role of increasing financial inclusion to make more resilient economies. Mr Ram replied by sharing the plight of 1.8 million women who are part of Sewa bank. These women do not have

Individual bank accounts; and were severely affected during the demonetization drive in India. This case shows how important the availability of sustainable credit is in India. For many, the availability of credit is a lifeline out of poverty; however, it can also be the cause of poverty given its high cost. Hence it needs to be given responsibly and at the right time. For example National Rural Livelihoods Mission data shows, it has dispersed 66,000 Cr as credit in the last three years. Of this 9000 Cr has been defaulted. This is due to poor policy implementation and monitoring. One reason he said that the credit market is not sustainably in India is because the availability of credit via various schemes sometimes incentives its uptake even when it's not needed. Another reason is that credit in India is often very expensive. Mr Ram pointed out that in rural India credit is usually given in cash as a result of not having bank accounts. As a result even those who have been borrowing for years, are not part of the formal banking system.

Conclusion

Ms Niazi closed the discussion by listing the key points and recommendations made during the discussion. These were:

- We need to change our consumption patterns and strive to consume more sustainably
- We need to improve our production processes by among other things sourcing materials sustainably and locally.
- We need to start quantify of the benefits of sustainable consumption and production in order to help mainstream the practice.
- We need to focus investment towards building human capacities, in particular in higher education
- We need to devise policies and systems to make the credit market more sustainable
- We need to revamp our policies to be more rooted in scientific theory and create new ones where required through a participatory process
- We need to recognize and promote our traditional practices

Economic Transitions towards Sustainable Development for India

Photographs



Economic Transitions towards Sustainable Development for India Speaker Profile

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SPEAKER 1

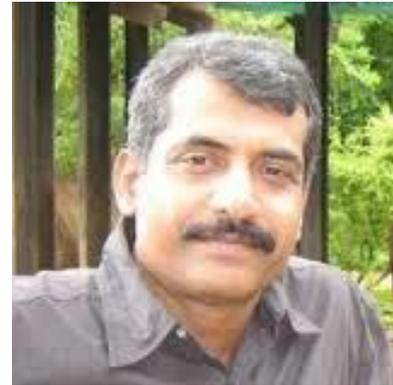
Name: A. R Shivakumar

Designation: Principle Scientific Officer

Organisation: Indian Institute of Science

Educational Background:

- Bhartiya Vidya Bhavan, Post Graduate, Business Management
- Mysore University, Bachelor of Engineering



Area of work: Environment, Water Issues, Renewable Energy

Mr. A. R. Shivakumar a Scientist, currently Principal Investigator – RWH and Senior Fellow at Karnataka State Council for Science and Technology (KSCST), Indian Institute of Science, Bangalore 560 012, is a Researcher and Technology Promoter.

He joined KSCST in the year 1981 and served in the field of development of village industry equipments and implementation of environment and renewable energy programmes in Karnataka. He is known for his contribution to popularize Solar Water Heaters in the initial period of solar energy promotion between 1984 and 1994.

Mr Shivakumar has initiated several projects and programmes at KSCST since 2004. One of the major contribution of Mr Shivakumar is in developing Rainwater Harvesting programmes both in urban and rural homes of Karnataka. He is instrumental in bringing in policy changes at Government of Karnataka to establish Rainwater Harvesting measures in Government and private buildings.

SPEAKER 2

Name: Chitra Vishwanath

Designation: Managing Director

Organisation: BIOME Environmental Solutions Private Limited

Educational Background:

- Bachelor of Architecture, CEPT Ahmedabad
- Banaras Hindu University
- Karolinska Institute



Area of work: Ecology and architecture

Chitra Vishwanath is an Indian architect based in Bengaluru who works on themes related to ecology and architecture. She has been running her own architectural firm since 1991, working with other architects on many projects in India and Africa. She is now the Principal Architect and Managing Director of BIOME Environment Solutions Private Limited, which has 30 employees. She has been involved in more than 500 projects encompassing construction of buildings of all sizes and water harvesting and sanitation structures with specific relevance to the ecology of the sites. With mud as a basic material input in construction she has designed and built many structures.

She started her practice in 1990. Her approach in evolving architectural designs has placed emphasis on indigenous natural resources, in both an active and passive manner. Mud forms the basic element in her architectural designs in view of its easy availability, labor intensiveness, and ease of construction, incorporating water, energy and land-use processes.

SPEAKER 3

Name: Dr. Jyotsna Jha

Designation: Director

Organisation: Centre for Policy and Budget Studies

Educational background: PhD in Economics, Jawaharlal Nehru University (JNU)

Area of work: Education and gender



Dr. Jyotsna Jha presently heads Centre for Budget and Policy Studies (CBPS), located in Bangalore, India. Trained as an economist, Jyotsna has more than two decades of experience of working on education, gender and other development related issues. Prior to joining CBPS in 2011 she worked as an adviser to Social Transformation Programmes Division at Commonwealth Secretariat in London. She has led several research initiatives and has a number of books and publications to her credit. She has written largely on equity issues in education; she has also engaged with issues of gender analysis of economic and social policies.