Development Alternatives

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Means of Implementation

Key Messages

- India has various available choices to overcome barriers and hurdles in achieving sustainable future in the country.
- The choices that India makes in its development pathways must ensure well-being of people and planet and move away from poverty, vast inequality and severe environmental damage.
- Policy Support and rational systemic planning is essential for moving forward on any of the choices.
- Four primary "means of implementation" that turns the pathways into actionable objectives are identified which are- Technology, Finance, Capacity Building and Markets.
- These four means of implementation are provided with the lens that recommends actions that help India to transit towards greener, resilient economy

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Introduction

India with its unprecedented movement towards economic growth and development has to incorporate a pathway that indicates an appropriate future for the country. While the Gross Domestic Product (GDP) is on an upward curve, the two other aspects of sustainability, i.e., social and environmental, don't paint as colourful a picture. This is where it is necessary to differentiate pathways for transitioning towards a 'Super Power' with the highest demographic dividend which ensures the well-being of people and the planet, or treading on its historic pathway that encompasses multidimensional poverty, vast inequality, and severe environmental damage. There are available various pathways to overcome barriers and hurdles that are stagnating the movement achieving a sustainable future in the country.

The Pathways

- **Business As Usual**

The current trend of economic progress, the Business-As-Usual (BAU) is an approach that is just jigging up the pace slowly to reach the basic needs, and goods and services to more people. It assumes no fundamental changes in policy or external conditions, and the environmental and societal well-being play second fiddle to the goals of the market. This scenario copies model of the industrialised developed nations that will essential result in problems multiplied many times over considering the 'demographic dividend'.

- **Piggy Back**

This second option is where the society selects the best practices from around the globe. For example, looking at case studies of renewable energy from Germany, water management from Israel, forest management from Korea, and biodiversity conservation from Canada, etc. Hence, the piggy back pathway implies a fine tuning of the current economy, social, environmental and governance systems. In this regime, we will witness a decline in environmental degradation, resource depletion, and substantial improvement in efficiencies etc. However, efficiency is not complemented with sufficiency. It is doable but it is not enough.

- **Leap Frog/Horse Jump**

The third pathway is about creating transformation through deep structural changes. Transformation implies a fundamental change i.e. a reappraisal of the basic assumptions and building blocks that underpin the current approaches to growth and development. It implies not only systemic changes but also significant reductions in material and energy usage and major improvements in citizenship and community. It will mean ensuring everyone enjoys a basic standard of living and lowering the ceilings to ensure sufficiency, while plugging the leaks such as wastages, conservation, etc.

These pathways are scenarios built to provide an insight to the future; however they need to be supported by informed and coherent policies, and rational systemic planning. There exist examples of possible solutions and strategies for helping India transition to a sustainable future. We however need to move to look at what can be done and how, going beyond what should be done. A sustainable India will need a more socially just, environmentally viable, and economically sound form of development. Transitions in the economic, social, environmental and governance spheres are interconnected and overlapping while being independent in their own right. They must occur concurrently to put India on the path of sustainable, resilient and inclusive development for all. However, there is a need to identify certain points of leverage or means of implementation that will cohesively bind all the transitions and help overcome structural barriers such as systemic lock-ins and market failures etc. Technological innovation and capacities along with appropriate capital and labour accumulation forms the backbone for strengthening various sectors growth, and invariably the nation. It involves a structural change that incorporates and propagates technical creation, transfer, and absorption[i].

Means of Implementation

- **Technology**

The very large disparities in the abilities of various stakeholders/institutions to generate appropriate innovative technology hinder the transition towards a green economy, while wherever there is access to appropriate technology, the absorptive capacities on the recipient side is rather weak. This is significant from the fact that India accounts for only 3% of global R&D spending on technological innovation, of the $1.3 trillion in 2011[ii]. A mechanism that can actively disseminate resource and energy efficient technologies to the enablers of green economy is missing along with a lack of active institutions and centres that adapt and promote the use of equipment and/or technological packages optimally. For example, while efforts are being made to provide proper access to sanitation to households especially in rural areas of India, the lack of technical capabilities to manage and effectively dispose sewage water still remains as a major hindrance.

Green growth is unlikely to occur without technical innovations that help in decoupling growth from natural capital depletion and environmental pollution[iii]. In the recent past, cleaner and resource efficient technology development have been trending in India[iv]. Shedding light on this fact are a few initiatives in India that have laid the foundation for technologies that can essentially be scaled up, increasingly based on altering traditional techniques to modern needs and demands. The '*MittiCool Refrigerators*[v]' is one such example that develops refrigerators made entirely of clay, working on the principle of evaporation to keep the contents inside the refrigerator cool. With assistance from various organisations such as Gassroots Innovation Augmentation Network (GIAN) for product development and National Institute of Design (NID) for product design, the initiative adapted various types of structures and proportions of clay in order to make the refrigerator durable. The technological innovation barrier has been addressed to the current challenges of affordability and sustainability.

- **Finance**

Finance especially capital has a very crucial role to play in leveraging these transitions. It has the ability to provide a boost to appropriate technology solutions towards a green economy. The lack of availability and access of the small scale enterprises or weaker sections of society, to financial capital and investments retards attempts to scale up green initiatives. With limited support from the government, and inadequate funding from other stakeholders, the potential of most of these initiatives has not been harnessed.

While there have been reforms within the market creating opportunities to redirect capital flows towards building greener, more resilient economy, efforts need to be mainstreamed. Innovative financial models and tools that facilitate the free or low cost access to technology[vi] along the supply chain, i.e., to the developer, MSMEs, etc., are key to the growth of the green sector. Redefining existing methods and tools of financing such as micro-finance, joint group borrowing, etc. to make them more attractive to the borrowers has seen an increasing trending among the green initiatives.

Initiatives like *Rang De*, have leveraged on the peer-to-peer lending model to lower the cost of microcredit. It works along the concept of using internet to source finances from individuals for an amount as little as Rs. 100, thus being an attractive proposition for the lenders as well and disburses loans to the borrowers through the field partners. It has raised Rs. 270 million for loans, spread across 15 states and received Rs. 202 million repayments[vii] from the borrowers.

- **Capacity Building**

Dynamic human resources who are adaptive and skilful are a key ingredient for transitioning to a green and resilient economy. The need of special skill sets is ever increasing with the expansion of the green economies in various sectors[viii]. Knowledge of green economy is a prerequisite to achieve social, environmental and economic development collectively. This entails building the abilities (technical and managerial); generating awareness about the need for a green economy; influencing behaviour to act responsibly; and strengthening systems of organisations, institutions, groups, and individuals[ix].

For example, the excessive use of pesticides and fertilizers after the Green Revolution that caused long-term detrimental environmental and health impacts of chemical farming, was triggered due to the lack of awareness of

consequences among farmers. Raising awareness is only one of the aspects of capacity building. Enhancing skills and ensuring dynamic nature of adapting to modern technologies are critical parts of capacity building.

For value addition of products and ensuring longer shelf life as well as meet the demands of larger market, a producer company was set up in the *Niligiri* Biodiversity Reserves. The tribal communities traditionally selling NTFPs and raw materials are now trained managerial and technical skills to run a producer company locally. The increasing capabilities of the tribal communities ensured livelihood security as well as increased profits. Capacity building thus helps enhance and strengthen the abilities and assets of individuals, groups, and institutions, thereby empowering them.

- **Market**

The need for developing a market for a green economy entails a platform that not only supplies green technologies and products but also ensures that the demand for the same is created. A market that propagates the utilisation of low-carbon clean technologies and products has slowly been emerging; however the vigour of it is still frail. In the waste sector the products produced by recycling solid waste does not reach the consumers due to weak and fragmented market linkages. The consumers have low acceptance of the green products, coupled with incompetent market linkages thus causing weak scaling up/out opportunities for the producers or entrepreneurs. Similar trends have been seen for organic agricultural produce.

Efficient market linkage is critical in avoiding expensive and sometimes perverse outcomes. The gap between the producers and consumers was bridged by many organisations. The "*I say Organic*" initiative plays the role of a connector between farmers who grow organic produce and consumers of organic products through on an online portal. By breaking the existence of middlemen, the initiative provides direct access of market to the farmers and ensures the farmers receive higher returns and margin on the produce.

Likewise, in the Nilgiris, Tamil Nadu, products grown and collected by the tribal communities were sold at a very low price with low returns to the community. The *Keystone Foundation* focussed on establishing a programme to develop capacities of the producers in fair-trade and organic principles. The foundation set-up chains of retail shops and networks all over India to market and promote products produced by the tribal communities. Building and strengthening its network, the foundation set up an enterprise '*Last Forest'* for establishing a market in order to empower the communities and ensure a consistent market linkage for the green products.

Conclusion

The transition to a green economy will result in many win-wins. Movement towards a future that leverages on green economy has the potential of achieving sustainable development and eliminating poverty on a vast scale, with speed and effectiveness[x]. In India, the playing field is steadily transitioning with considerable growth in the recognition of the fact that the environment forms the basis of physical assets and that there is a critical need for managing it for pursuing economic growth and social well-being. The transition towards a green economy is not a few steps process. The barriers or obstacles in terms of capacities for technological innovation and absorption, access to finance, inadequate awareness and skills, and ineffective market linkages have emerged as the key areas of intervention that can ease the transition towards a green economy. The means of accomplishing a nation-wide green economy would entail the understanding and mechanisms to move from *initiative to strategy* and from *spend to invest*, thus making it a long-term endeavour[xi] .

End notes

[i] UNIDO, 2011, 'Industrial Policy for Prosperity: Reasoning and Approach', Working Paper 02/2011, Available from <http://www.unido.org//fileadmin/user_media/Publications/Research_and_statistics/Branch_publications/Research_and_Policy/Files/Working_Papers/2011/WP022011%20Industrial%20Policy%20for%20Prosperity%20-%20Reasoning%20and%20Approach.pdf>

[ii] Hultman, N., et al., 2012, 'Innovation and Technology for Green Growth', Brookings Blum Roundtable Policy Briefs

[iii] Dutz, M. A., & Sharma, S., 2012, 'Green Growth, Technology and Innovation' The World Bank, Working Paper 5932, Available from <http://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-5932>

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[v] http://map-sa.net/docs/20140723-15-05-56.pdf

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[viii] Eco Canada, 2010, 'Defining the Green Economy', Available from <http://www.eco.ca/pdf/Defining-the-Green-Economy-2010.pdf>

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About Development Alternatives Group www.devalt.org

Development Alternatives (DA) is a premier social enterprise with a global presence in the fields of green economic development, social equity and environmental management. It is credited with numerous technology and delivery system innovations that help create sustainable livelihoods in the developing world. DA focuses on empowering communities through strengthening people's institutions and facilitating their access to basic needs; enabling economic opportunities through skill development for green jobs and enterprise creation; and promoting low carbon pathways for development through natural resource management models and clean technology solutions.

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