

## **The Flip Side of Kerala Model Development: An Insight into Raising Sustainability Concern and the Need for a Better Business Ecosystem**

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### **ABSTRACT**

#### *A: Purpose*

*Purpose of this article is to look at the flip side of the praised Kerala model development and to examine the evidence of sustainability concerns the model faces.*

*Kerala, the Indian state steals global attention due to its rapid growth in the human development index. The uniqueness of this model is featured with higher human development index with a lower level investment. Today the world is looking at the flip side of the coin as recurrent natural calamities (flood and landslide), this paper is keen on looking at the pieces of evidence of sustainability concerns from the published literature.*

#### *B: Design/methodology/approach*

*This is a descriptive paper based on reviewed literature, literatures have been extracted under two major heads namely socio-economic development of Kerala/Kerala model development and the impacts of natural calamities. S Krishnakumar's PhD thesis Kerala model development critical analysis and academy of management executive journal article titled creating sustainable value written by Stuart and Milstein are the key references used in this article to relate it with the current scenario of Kerala.*

#### *C: Findings*

- 1) Unsustainable development cannot offer prosperity in the long run.*
- 2) Knowing the resources and allocating them aptly, and exploring them optimally etc. can add towards sustainability and will assure ecological balance.*
- 3) Balanced growth would last longer than rapid growth*

#### *D: Originality/Value*

- 1) This research would remind the policymakers to respond positively toward the essentials of human survival than vested interests.*
- 2) This would prompt in-depth research in similar lines which would help to preserve nature in a better manner.*
- 3) Aspiring intrapreneurs would think of developing a sustainable business model by utilizing the opportunities in Kerala optimally.*

*Keywords: Kerala model development, unsustainable growth, environmental sustainability*

### **1: INTRODUCTION**

Kerala contributes 2.8 percentage towards India's population and 4 percentage towards the national GDP (www.financialexpress.com, 2019). Kerala is a land with its own flora and fauna, and the state popularly known as 'God's own country'. The charm of the place attracts global tourists and the state is earning from that source as well. The state has an impressive rate of literacy but the unemployment rate is high. 3 million Keralites have migrated to foreign countries (middle east) in search for better job opportunities, money inflow through this migration comes 9.25 billion USD. At present 63 per cent of Kerala's GDP is from the service industry, 24 per cent from industries, 13 per cent from agriculture. Kerala can be considered as a consumer state as agricultural production is insufficient for the domestic usages. Today the well-known Kerala model is less relevant as GDP also improved along with the human development index. But there exists a development model called Kerala model which was globally recognized, today recurrent natural calamities pausing a question on sustainability of that model?

## 2: LITERATURE REVIEW

### **Kerala model development/ Socio economic development of Kerala**

The state Kerala came into existence in the year 1957, since then the state has undergone multiple financial reforms (Krishnakumar, 2013). The sequential changes to the state economy have gained global attention due to its high growth potential. While existing the economic stagnation social development is at its peak, this makes this development model unique in the country. The state witnessed an upward movement of the economy since the late nineteen eighties, demographic dividend, emigration and certain economic reforms have contributed to this. High social achievements in Kerala is due to multiple reasons such as socio-religious movements, political and public action, migration, land and agrarian relations, etc. On the other hand, agriculture, industry, are stagnant and non-creamy layers of society are less privileged.

SWOT analysis of Kerala's socio-economic development reveals the following facts (Krishnakumar, 2013). High human development index, high gender equality, literacy rate, reading habits, education system with universal elementary education, health service and infrastructure, high life expectancy rate, high standard of sanitation, housing coverage, women empowerment, family planning awareness, population stabilization, benefits from migration, social justice, welfare and security, well established public distribution system, high food and nutrition security, free noon meal scheme for school children, supplementary nutrition for preschool children and nursing mothers, progress in the field of poverty alleviation, strong plantation economy, land reforms, developed infrastructure, unique mineral resources, successful implementation of constitutional decentralization, democratic public action, cultural harmony etc are the key strengths of Kerala's economy.

Kerala emerged as a model due to its excellence in human development even with a lower per capita income and consumption expenditure (Krishnakumar, 2013). This unique pattern of development is due to the well-routed education system of the state. Literacy, life expectancy, birth rate, infant mortality, are the four social development indicators, these are very high in Kerala when compare with the corresponding national averages. But in the context of economic growth of per capita output is the primary indicator of overall growth, if it is good then human development would be better automatically.

Kerala's financial prosperity started during the early nineties. (Krishnakumar, 2013) Depreciation of the rupee, the abolishment of investment restriction on technology and raw material have provided a better investment climate. Today, GDP per capita of the state is slightly higher than the national average. Kerala's achievement is through an unconventional path and at the same time this model raises serious sustainability concerns in both in the short run and long run. Low growth, high cost, low productivity, low investment and low employment are the major challenges which this model faces.

Human development index comparison report published by state bank of India has been extracted below (Human development index across Indian states: Is the glass still half empty., 2019). Education, health and standard of living are the three aspects considered while ranking the states. In 2017 Kerala stands in number one position with index .77 which was .54 in 1990 and was ranked second.

India's Position in HDI (2017)	
Country	HDI Rank
Hong Kong	7
Singapore	9
UAE	34
Saudi Arabia	39
Argentina	47
Russia	49
Malaysia	57
Turkey	64
Sri Lanka	76
Brazil	79
Thailand	83
China	86
South Africa	113
Indonesia	116
<b>India</b>	<b>130</b>
Myanmar	148

Source: UNDP; SBI Research

Improvement in HDI across States								
States	1990		2017		Change (2017 over 1990)	CAGR of Social Expenditure (2017 over 1990)	Ayushman Bharat (MoU joined)	Change in Rank in Per-capita Income (2017 over 1990)
	Index	Rank	Index	Rank				
Haryana	0.46	13	0.70	6	7	15.7%	✓	1
Himachal Pradesh	0.48	10	0.72	4	6	14.0%	✓	2
Tamil Nadu	0.47	11	0.70	7	4	13.4%	✓	0
Karnataka	0.44	16	0.68	12	4	14.8%	✓	6
Punjab	0.49	6	0.72	3	3	12.6%	✗	-9
Arunachal Pradesh	0.43	18	0.65	15	3	15.1%	✓	-7
Rajasthan	0.40	22	0.62	20	2	15.2%	✓	4
Kerala	0.54	2	0.77	1	1	13.6%	✓	12
Andhra Pradesh	0.42	19	0.64	18	1	12.9%	✓	1
Odisha	0.40	23	0.60	22	1	15.1%	✗	4
Goa	0.55	1	0.75	2	-1	14.4%	✓	0
Maharashtra	0.48	8	0.69	9	-1	14.3%	✓	-1
Tripura	0.44	15	0.65	16	-1	13.6%	✓	7
Assam	0.41	20	0.61	21	-1	15.1%	✓	-6
Sikkim	0.54	3	0.71	5	-2	14.8%	✓	5
Jammu & Kashmir	0.49	9	0.68	11	-2	14.6%	✓	3
Gujarat	0.47	12	0.67	14	-2	14.1%	✓	-2
West Bengal	0.44	17	0.63	19	-2	13.3%	✓	-6
Madhya Pradesh	0.40	21	0.60	23	-2	13.9%	✓	0
Mizoram	0.52	5	0.70	8	-3	12.0%	✓	4
Manipur	0.49	7	0.69	10	-3	12.9%	✓	-3
Meghalaya	0.45	14	0.65	17	-3	13.5%	✓	-6
Nagaland	0.53	4	0.67	13	-9	12.7%	✓	-7
Uttar Pradesh	0.39	24	0.59	24	0	14.0%	✓	-2
Bihar	0.38	25	0.57	25	0	13.8%	✓	0
All India	0.43	-	0.64	-	-	14.6%	-	-

Source: SBI Research, UNDP, Global Data Lab. Green Shade indicates Social Exp. Pushed up HDI

**RECURRENT NATURAL CALAMITIES AND RAISING SUSTAINABILITY CONCERN**

Kerala gets an average annual rainfall of 3107 mm, but last two years the state experienced heavy rainfall resulting in flood and landslide (www.livemint.com, 2018). In 2018 death toll to 400 and 2019 it is 169. Other than that, many went missing, 20000 houses have lost, 10000-Kilometer roads damaged and estimated the loss of 400 billion.

2018 flood has been termed as manmade flood as the dam management was improper and which worsened the situation and increased the toll. Other reasons are listed such as unauthorized mining, construction of super-luxury homes, conversion of agricultural lands for a commercial purpose, without considering the ecological or geographical aspects. Political parties nodded positively to exploiting the earth with a commercial interest, no policy-protected those vested interest. Conversion of agricultural land for commercial purpose have reduced agricultural production and reduced agricultural job opportunities.

Eight years back Madhav Gadgil, a well-known ecologist alerted about the upcoming threats if the government failed to preserve western ghats (www.livemint.com, 2019). In his report he said, manmade interventions resulted in changing the ecological balance of western Ghats which will result in further climatic changes and natural calamities. Major rivers such as Krishna, Kaveri, Godavari are originating from western ghats. The government has to take preventive measures to preserve the biodiversity of this region. Policymakers should stand against ruining nature with commercial interests. Gadgil warned that these predicted changes would hit coastal state Kerala more. Necessary steps have not been taken by the government. Finally, Kerala faced the predicted scenario in 2018 and 2019 respectively.

The occurrence of this event has proven that development and economic prosperity accomplished at the cost of ecological balance cannot offer long-run prosperity. Nature and biodiversities have to be protected for balanced development, ruining one side and building up the other side are not wise. This model may collapse at any time.

The term sustainability comes into the picture now. The term refers to the utilization of resources in a manner to fulfil the needs of the current generation by keeping the needs of the future generation in mind (Atkinson, Dietz, Neumayer, & Agarwala, 2014) Policymakers and strategists should analyze the sustainability aspects in multiple angles. The sustainability of the well-praised Kerala model is under question now. Recurrent natural calamities raising a question of how sustainable the model was?

The state was getting praised for its exceptional growth in human development index but the policymakers never looked at the flip side of this development. Achieving prosperity without interfering nature, or planning developments in resonance with the ecological balance can only be called sustainable development. Human wellbeing should be the primary consideration of policymakers.

Low growth, high cost, low productivity, low investment and low employment are the major challenges which Kerala model faces. Focus has to be given to these weaker sections to rejuvenate the GDP as well as human development index. Gaining better standard of living without considering the sustainable aspects would impact the overall balance and which will collapse at any time.

## 2: RESEARCH GAP

Literatures are existing in different heads related to Kerala model development and scenario after recurrent flood. This paper is linking the growth model with natural calamities and looking at why the model is unsustainable.

## 3: DISCUSSIONS/SUGGESTIONS AND RECOMMENDATIONS

Stuart L. Hart and Mark B Milstein published a paper titled 'creating sustainable value' in Academy of management executive journal. In this paper, they explained the terms triple bottom line and sustainable enterprises. A sustainable enterprise is the one which focuses on economic, social and environmental benefits. Being the most people-friendly enterprise, the government has to have the responsibility to serve the people at its best hence sustainability should be the primary concern while framing growth models.

Sustainability is a multi-dimensional one, environmental, social, moral, economic, legal, technical and political aspects (Stuart & Milstein, 2003). As floods and natural calamities are affecting environmental, social and economic aspects of sustainability. Value creation through reduction of material consumption and pollution reduction, executing highest levels of transparency and responsiveness, value addition through new disruptive technologies, focusing on the bottom of the pyramid category etc. can help to improve the sustainability, which will automatically result in environmental protection.

Every production process starts with material extraction, it is obvious that without resource extraction nothing can be created (JOSE, 2019). What extent it should be extracted? What would be the consequence of this extraction? What are the social impacts of this extraction? All these questions need to be addressed within the context of sustainability. Life cycle assessment (LCA) and its variants such as cradle to crane, cradle to gate, cradle to cradle, well to wheel etc. can provide the impacts of extraction, total energy consumption, ecological impacts, wellbeing, human rights, working condition, cultural heritage and its socio-economic impacts. While implementing or sanctioning any project the government has to consider all these aspects. The government can assign a committee to study the sustainability aspects of each project and the government has to respond as per the committee report.

## 4: BUSINESS APPLICATION

Uncertainty is a part of business; this research suggests to look at the ecological aspects and the raising sustainability concerns while designing a business model. The mode of designing business should be reframed, instead of utilizing scarce resource introduce new product or applicability to the product produced with the available resource. Every business should study the sustainability aspects and look at long run impact of operating in a specific business ecosystem.

## 5: CONCLUSION

The state Kerala shows that no development is a development until it is sustainable. If the state considered sustainability aspects of development, they could subsidize the impact of the flood. While sanctioning, mining, extraction and construction projects the government should take the rational decision by considering sustainability aspects too. Even the excess emission of carbon dioxide would result adversely to the atmosphere (JOSE, 2019) hence state like Kerala (which is prone to natural calamities in upcoming years as well) needs a political system which treats development at the cost of existence or development which threatens the opportunities of future generation is not a prosperity.

## LIMITATIONS OF THE STUDY

- 1) Used the term sustainability in the research but focused more on social, environmental and ecological aspects of sustainability.
- 2) Absence of in-depth analysis is prominent.

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