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# 6<sup>th</sup> THE INDIAN SOCIETY OF LABOUR ECONOMICS ANNUAL CONFERENCE

19-21 January 2026 | Symbiosis School of Economics, Symbiosis International (Deemed) University, Pune, India

## Structural Transformation in India: Issues and Policies

### INAUGURAL ADDRESS

**S. MAHENDRA DEV**

Chairman, Economic Advisory Council to  
the Prime Minister (EAC-PM)

19 January 2026 | Pune



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By

**S. Mahendra Dev**

Chairman, Economic Advisory Council  
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*Organised by*

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## S. MAHENDRA DEV



S. Mahendra Dev is presently Chairman, Economic Advisory Council to the Prime Minister (EAC-PM). He was the Director and Vice Chancellor, Indira Gandhi Institute of Development Research (IGIDR) in Mumbai for 12 years during 2010-2022. Prior to this position, he was Chairman of the Commission for Agricultural Costs and Prices, Ministry of Agriculture from 2008 to 2010. He was Vice Chairman of the Board of Trustees of International Food Policy Research Institute (IFPRI), Washington, D.C. He was also a member of the Board of IFPRI for seven years from 2013 to 2019. He was member and Acting Chairman of the National Statistical Commission, Government of India. He got the prestigious Malcolm Adisesaiah Award in 2016. He was Director, Centre for Economic and Social Studies, Hyderabad, India for 9 years from 1999 to 2008. He is a member of the executive committee of the International Economic Association. He did a Ph.D. from the Delhi School of Economics and a post-doctoral degree from Yale University, USA.

He is Chairman of the Institute for Development Studies, Andhra Pradesh and Distinguished Professor at ICFAI Faculty of Social Sciences, Hyderabad. He was an independent director in Axis Bank and Kotak Mahindra Bank. He is currently the Association President of the Indian Society of Agricultural Marketing. He was Association President of the Indian Economic Association for three years 2018 to 2021. He was conference President of the Indian Econometric Society (TIES), Indian Society of Agricultural Economics, Indian Society of Labour Economics, and Indian Association of Social Science Institutions (IASSI).

His main areas of interest are development economics, agricultural economics and macroeconomics. He has around 150 research publications in national and



international journals in the areas of agricultural development, poverty and public policy, inequality, food security, nutrition, employment guarantee schemes, social security, farm and nonfarm employment. He has written or edited 23 books. His well cited publication is “Inclusive Growth in India: Agriculture, Poverty, and Human Development” published by Oxford University Press. His book “Perspectives on Equitable Development” was released by the former Prime Minister of India.

He has been a consultant and adviser to many international organizations, such as UNDP, World Bank, International Food Policy Research Institute, UNESCO, ILO, FAO, ESCAP, UNICEF, DFID, and OECD. He has been a member of several government committees in India, including the Prime Minister’s Task Force on Employment chaired by Dr. Montek Ahulwalia, advisory committee for the National Commission on the Enterprises in the Unorganized sector, member of the Committee on Financial Inclusion chaired by Dr. C. Rangarajan, member of the Expert Group on Poverty chaired by Dr. C. Rangarajan. He was the Chairman of the Committee on Terms of Trade on Agriculture constituted by the Ministry of Agriculture. He was a member of several working groups for 9th, 10th, 11th and 12th Five-Year Plans in India. He is also a member of several committees of NITI Ayog. He has received honors for eminence in public service. He got awards for best teacher in economics and outstanding contribution to education. He received honorary doctorate (DLitt) from the Acharya Nagarjuna University, Andhra Pradesh.



# Structural Transformation in India: Issues and Policies

S. Mahendra Dev<sup>1</sup>

## Outline

- Structural transformation in India
- Issues and Policies
  - Shares in GDP and Employment
  - **Transformation of agriculture: Diversification, marketing inclusion and climate change**
  - **Manufacturing led growth: Global and domestic challenges and opportunities**
  - Challenges and Opportunities in service sector

## Structural Transformation

	GDP (%)		Employment (%)	
	2011-12	2023-24	2011-12	2023-24
<b>Agriculture and allied</b>	18.5	<b>14.7</b>	48.9	<b>46.1</b>
<b>Industry (Secondary sector)</b>	32.5	<b>30.8</b>	24.3	<b>24.2</b>
Manufacturing	17.4	<b>17.5</b>	12.6	<b>11.4</b>
<b>Construction</b>	9.6	<b>8.9</b>	10.6	<b>12.0</b>
<b>Services (Tertiary sector)</b>	49.0	<b>54.5</b>	26.9	<b>29.7</b>
<b>Non-agriculture</b>	81.5	<b>85.3</b>	51.1	<b>53.9</b>
<b>Total</b>	100.0	<b>100.0</b>	100.0	<b>100.0</b>

1 Chairman, Economic Advisory Council to the Prime Minister (EAC-PM)



## Structural Transformation

	Employment (Millions)	
	2011-12	2023-24
<b>Agriculture and allied</b>	231.3	<b>292.1</b>
<b>Industry (Secondary sector)</b>	114.7	<b>153.4</b>
Manufacturing	59.6	<b>72.5</b>
<b>Construction</b>	50.1	<b>75.9</b>
<b>Services (Tertiary sector)</b>	127.0	<b>188.5</b>
<b>Non-agriculture</b>	241.6	<b>341.9</b>
<b>Total</b>	472.9	<b>634.0</b>

### Structural Transformation: Employment

	Male		Female	
	2011-12	2023-24	2011-12	2023-24
<b>Agriculture and allied</b>	43.3	36.3	55.7	64.4
<b>Industry (Secondary sector)</b>	25.8	28.8	22.0	15.5
Manufacturing	12.4	11.4	15.5	11.5
<b>Construction</b>	10.6	12.0	5.8	3.7
<b>Services (Tertiary sector)</b>	26.9	34.9	22.4	20.1
<b>Non-agriculture</b>	56.6	63.7	44.3	35.6
<b>Total</b>	100.0	100.0	100.0	100.0



## Labour Productivity Across sectors

Sectors	Productivity Value (in Rs. 000)		Productivity of Sectors over Agriculture
	2011-12	2023-24	
		2023-24	2023-24
Agriculture	66	80	--
Manufacturing	241	383	4.8
Construction	157	194	2.4
Services	314	470	5.9

Source: Alakh Sharma and BS Mehta (2024), EPW

### Role of Agriculture in Development

- **Earlier economists from Adam Smith onwards recognized the role of agriculture in economic development**
- More recently, Johnston and Mellor, 1961
- In India also economists and policy makers discussed the agriculture led development in India.
- For example, the Wage Goods Model, developed by C. N. Vakil and P. R. Brahmananda, was an alternative to the Mahalanobis model of economic planning in India.
- K.N. Raj (1976): Importance of agricultural growth for industry.
- It takes some time to shift the population.
- **Agriculture productivity is low and it has to be increased to raise the incomes of the population dependent on agri. Which can also provide demand for non-agriculture.**



## Demand factor

- Higher inequalities led to demand for certain goods and services
- **Agriculture and rural led growth is important for enhancing a broad-based demand.**
- The expenditure elasticities for goods and services are higher for the bottom 60% in rural areas compared to the richer classes in urban areas.
- When income increases, the richer classes tend to save more while the rural bottom 60% spend more.
- In India, around 90% in informal workers. Majority of them are in agriculture.
- **The demand from formal sector is not broad based. Unless we improve the incomes of the agriculture and informal sector, we can not achieve higher demand.**

## Transformation of Indian Agriculture

- **Diversification:**
  - Indian agriculture is undergoing a structural transformation as the composition of agricultural output has changed dramatically.
  - **There is a need for diversification from rice, wheat to millets, pulses, oilseeds, horticulture in crop sector.**
  - But, rate of return in rice and wheat is higher compared to millets, pulses, oilseeds.
  - **For example, gross return over A2 cost + farm labour (A2+FL) for rice is Rs.30200/ha. Jowar (9000), bajra (8600), Ragi (negative), maize (30100).**
  - Similarly, pulses and oilseeds have lower returns. How to increase rate of return for these crops is important. On the other hand, growth rates are high for livestock and fisheries



## Factors and Policies influencing agriculture

- **Non-price factors:**

- Prices alone will not be sufficient for increasing farm incomes. **Therefore, non-price factors are also important.**
- On non-price factors, among other things, technology is crucial. India's crop yields have a lot of room for improvement, with wide variation across States.
- On technology for increasing yields, gene editing is being used instead of genetically modified technology.
- **Raising the level of R&D in agriculture would greatly help increase yields.**
- **Digital technology is increasingly being used in agriculture.**

## Incomes of farmers and Rural HHs.

- **Farmers have to depend both on agriculture and rural non-farm sector:**

- Incomes of Agricultural Households in 2018-19,
- only 45% of income for farmers come from cultivation and livestock, the rest 55% come from wages and salaries and non-farm business.
- **The NABARD survey shows that in 2021-22, the income from agriculture for rural households is only 27%. Income from other enterprises (15%), wage labour (20%) and salaried employment 37%.**
- Therefore, farmers and rural households have to **walk on two legs both agriculture and non-agriculture for their livelihoods.**



## Transformation of Agriculture

- Among other factors three factors are important
  - **First, focusing on post-harvest and marketing: we have to go beyond farming and develop value chain comprising farming, wholesaling, warehousing, logistics, processing, and retailing.**
  - Second, food and agro processing is important for higher incomes and employment
  - Third is small farmers need help in input and output marketing. We require FPOs and cooperatives for organising them. It is known that Amul milk cooperatives have been successful.
- Role of women is increasing in agriculture: They are also participating in processing, marketing, and agri-services.

### India's manufacturing sector: Challenges and Opportunities

- **Having said the importance of agriculture,**
- **In order to achieve developed status by 2047 and for creating quality employment, manufacturing sector-led growth is crucial.**
  - **the manufacturing-led transformation has been an important pathway to prosperity globally**
  - **The external context for building manufacturing, however, has changed dramatically**
  - Geopolitical, protectionism and tariff wars, **stalled multilateral trade negotiations, more bilateral agreements**
  - The carbon space is getting squeezed, with net zero targets looming large on the horizon.



## Global Developments and Challenges

- **Industrial revolution 4.0 including AI is automating and disrupting industrial processes**
- Manufacturing is becoming capital intensive and skill intensive.
- **The global supply chains are being restructured, often being re-shored, as advanced countries incentivise localization of production through aggressive pursuit of industrial policy.**
- Now, Globally, industrial policy has re-emerged as a central tool for economic strategy
- **As per a research paper by Dani Rodrik and others, the number of industrial policy interventions globally have shot up from 56 in 2012 to 1568 in 2022.**

## Global Developments and Challenges

- **To cite some examples, the U.S. launched large-scale initiatives such as the CHIPS and Science Act**
- and the Inflation Reduction Act to strengthen semiconductors, clean energy, and advanced manufacturing.
- The European Union is advancing its Green Deal Industrial Plan, focusing on renewable energy and critical raw materials.
- China is also modifying some of its industrial strategies.
- **The resurgence of industrial policy across both developing and developed nations marks a significant shift in economic strategy**



## India's Manufacturing Sector: Opportunities and Challenges

- India's Manufacturing Sector: Developments and strategies
  - **Since independence, achieving labour intensive manufacturing has been an issue.**
  - **India's industrial strategy has undergone a significant transformation over the decades** evolving in response to both domestic priorities and global shifts.
  - **Industrial policy has taken on a more targeted and strategic character in recent years**
  - with initiatives like *Make in India* and the Production Linked Incentive (PLI) schemes
  - aimed at building scale, enhancing competitiveness, and integrating India into global value chains.

## India's Manufacturing Sector: Developments and strategies

- Both manufacturing and services are needed as both are complementary.
- Structural Transformation in Asia (Nayyar, 2019)
- **The manufacturing sector has higher backward and forward linkages and also improves services.**
- India has a diversified industrial sector ranging from textiles, electronics, automobiles, chemicals, pharmaceuticals etc.
- The services sector needs an expanding manufacturing sector.
- **Some of the growth in service sector is due to expanding manufacturing.**



## Manufacturing trade policy

- India's response to trade tariffs is four fold
  - (a) helping the affected sectors (b) Diversifying exports to other countries (c) Speed up FTAs with other countries and (d) Continuing negotiations with the US.
- **Some economists say that India should join regional groups CPTPP and RCEP. Govt. has to see pros and cons**
- **Exchange rate can be used to increase merchandise exports/imports.**
- Rule based WTO is always better than protectionism.
- In services, our export share increased from 3% to 4.3%. In goods it is still less than 2%.
- **Despite protection policies and reduction in international trade, there are lot of opportunities for India to increase its share in world merchandise trade.**

## Reforms

- **Missing Middle**
  - On manufacturing, among other things, small size of the firms with majority operating at less than 10 workers is the one of the major problem.
  - And many others are between 10 to 50 workers.
  - On the other end we have large scale manufacturing firms.
  - **Missing middle is an issue. We must have many more middle level manufacturing units with 200 to 500 workers.**



## Reforms: Ease of doing business

- **Government wants to accelerate quickly the deregulation agenda already underway.**
- These reforms will make business easier and life simpler for citizens.
- The government has already appointed two committees on deregulation chaired respectively by the present Cabinet Secretary and previous Cabinet Secretary.
- **One of these committees is looking at state level deregulation**
- With ease of doing business and other reforms, private sector investment is likely to rise.

## MSMEs

- **The critical role of MSMEs in raising economic growth, employment generation, and exports is recognised.**
- The government's efforts focused on **improving access to credit, raising technological capabilities, providing market linkages**
- and addressing structural challenges MSMEs face.
- However, while these initiatives have helped MSMEs, some challenges in the regulatory environment remain.
- **The committees on deregulation will look at issues of MSMEs also.**

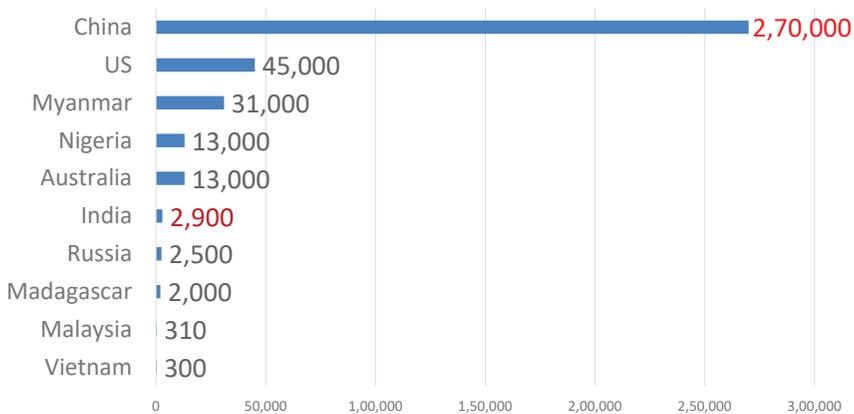


## Manufacturing policies

- Strategic policies on manufacturing.
  - **Atmanirbharata in critical sectors like Semiconductors, chips, critical minerals.**
  - It does not mean going back to previous import substitution. Focus on strategic, improve competitiveness. Make for the world
- **There are opportunities for traditional manufacturing, modern industries and global value chains (Veeramani and Dhir, 2021)**
- **With skill improvement, even high-tech industries can create employment.**
- **R&D in industry is low in India at 0.6%. This has to be increased.**

Rare earth production in 2024 (in tonnes),

Source: Mint



## Services sector

### • Briefly on services

- India's development experience shows it quickly transformed from agriculture to services in the shares of GDP.
- **It is the largest and the most dynamic component of Indian economy. Services share in total GVA 54.5% and in total employment 30% in 2023-24.**
- **Employment: Agriculture (292 mill.), Industry (153 mill.), services (188 mill.). (Niti Aayog, 2025)**
- Duality in services: High-skill sectors offer regular jobs, but low-skill sub-sectors (mostly informal workers) remain dominated by self-employment.

## Sub-sectors of Services

	GDP (%)		Employment (%)	
	2011-12	2023-24	2011-12	2023-24
Trade, hotels and restaurants	10.9	12.4	11.0	12.2
Transport, storage and communications	6.5	6.2	4.8	5.6
Financing, real estate, business services	18.9	<b>23.6</b>	2.6	<b>1.9</b>
Community, social and personal	12.7	12.4	8.5	9.9
<b>Services (Total)</b>	49.0	54.5	26.9	29.7
Total	100.0	100.0	100.0	100.0



## Employment elasticities

Sector	Pre-covid period 2011-12- 2019-20	Post-covid period 2021-22 to 2023-24	Overall 2011-12- 2023-24
Agriculture	0.04	1.51	0.41
Manufacturing	-0.08	1.07	0.22
Construction	0.59	0.42	0.60
Services	0.35	0.63	0.43

Source: Niti Aayog, 2025

## Service Sector

- **Niti Aayog (2025)**
  - Rural-urban divide: 60% of urban workers employed in services compared to less than 20% in rural areas
  - Women: Only 10.5% of rural women in services compared to 60% of urban women in services.
  - **Informal work remains pervasive across sub-sectors with 87% of all services workers lacking access to social security**
- **The report outlines four-pillar road map**
  - First, Formalisation and social protection for self employed, gig and MSME workers
  - Second, Enabling women and youth to access high growth services through targeted skilling, digital infra.
  - **Technology-led skilling for digitalization and green economy**
  - Fourth, balanced regional growth



## Labour intensive manufacturing and services

- **NCAER (2025) shows the impact of increased formal vocational training between 2024 and 2030**

- Labour intensive manufacturing and services: Jobs created from 5.6 million (share of formally trained workers 9%) to 14.8 million (share of formally trained workers 16%)
- **The same study shows if you want to achieve Economic Survey targets you need 20% share of formally trained.**

## State Wise – Manufacturing Employment

	Manufacturing (%)			Manufacturing (%)	
State/UT	2011-12	2023-24	State/UT	2011-12	2023-24
Gujarat	19.7	21.6	Kerala	13.4	9.9
Haryana	13.3	18.3	Andhra Pr.	10	9.6
Punjab	16.8	17.8	Jharkhand	7.7	9.3
West Beng.	22.7	16.7	J&K	9.6	9.1
Tamil Nadu	19.9	16	Himachal Pr.	6.6	8.6
Uttarakha.	9.3	13	UP	12.7	8.4
Telangana	--	12.8	MP	7.1	8
Maharashtr	12.2	12.7	Odisha	9.7	7.1
Karnataka	12.3	10.9	Chhattisgarh	4.7	6.7
Rajasthan	9	10.9	Bihar	5.7	5.1

Source – NSS Report on Employment 2011-12, PLFS 2023-24



## State Wise – Services Employment

Services (%)			Services (%)		
State/UT	2011-12	2023-24	State/UT	2011-12	2023-24
Kerala	42.6	48.5	J&K	27.6	31.3
Haryana	29.4	42.7	Gujarat	24.8	28.2
Punjab	32	40.8	Odisha	21.6	25
Tamil Nadu	31	37.9	Rajasthan	19.9	24.6
Maharashtra	31.9	36.2	Himach Pr.	18.9	24
Telangana		34.8	UP	21.2	22.7
West Bengal	29.4	33.4	Bihar	21.6	22.2
Uttarakhand	28.9	33.1	Jharkhand	21.6	21.6
Karnataka	31	32.9	MP	20.3	19.7
Andhra Pr.	27.7	31.8	Chhattisga.	14.5	19.1

Source – NSS Report on Employment Unemployment Situation in India, 2011-12, PLFS 2023-24

## Structural Transformation in Employment:2023-24

States	Share of Agri. (%)	Ran ks	States	Share of Agri. (%)	Ranks
Kerala	27.0	1	Odisha	48.9	12
Punjab	27.2	2	Jharkhand	50.0	13
TamilNadu	28.0	3	Rajasthan	51.2	14
Haryana	27.5	4	Himachal.P.	54.0	15
West Bengal	38.2	5	Bihar	54.2	16
Gujarat	42.2	6	U.P.	56.0	17
Uttarakhand	42.3	7	M.P.	61.6	18
Telangana	42.5	8	Chattisgarh	63.8	19
Maharash.	43.2	9	India	46.1	--
A.P.	46.3	10			
Karnataka	46.5	11			



## Conclusions

- Still 46% of employment is in agriculture. The performance of this sector is crucial.
  - **It has both intrinsic value :need for higher income for farmers and others in rural areas**
  - **and instrumental value: Demand and linkages for non-agri**
- Changing the narrative to diversification, inclusive in terms of small farmers, women, youth, sustainable and climate resilience .
- Apart from increasing production, three factors are important: **(a) Marketing and investing in value chains (b) agro-processing (3) Institutions like FPOs, cooperatives and SHGs to organize small farmers**

## Manufacturing and Services

- **However, having the said importance of agriculture, We must push for labour intensive manufacturing**
  - **lot of opportunities for expansion in manufacturing.**
  - **Key issues are: enhancing its productivity and competitiveness; deepening India's integration with global value chains; Skill improvement, AI and employment**
  - **augmenting localisation of production for creation of decent jobs; MSME sector**
- **Both services and manufacturing are complementary.**
- **We have to focus on this long-term structural problem of shifting workers from agriculture to manufacturing and services.**
- **Health, education and skills: This is another long-term structural problem. We have great quality dichotomy in education and health.**



## Concluding Observations

- **Role of states in the structural transformation is crucial**
  - In a large country, there are large inter-regional variations in development.
  - **As the British economist Joan Robinson once said: “Whatever you can rightly say about in one part of India, the opposite is also true in another part of India”**
  - Data on manufacturing and services at state level show that in some states, structural transformation happened much faster
  - The share of employment in manufacturing and services increased in some states : In Gujarat 22% while in Bihar 5%
  - Similarly in services Kerala, 49% while in Chattisgarh it is 19%.

## Concluding Observations

- Many studies have shown that improving ‘state capacity’ and governance is important
- **Similarly, decentralization of resources to Panchayats and Municipal Councils is needed.**
- **A study (Karthik Muralidharan) shows spending at the discretion of local governments where most services get delivered are 51 per cent in China, 27 per cent in the US and Brazil, and a distant 3 per cent in India.**
- **To conclude, agriculture incomes and productivity needs to be improved. But, structural transformation in employment to manufacturing and services is crucial**
- **As some one said the solution for agriculture lies in non-agriculture.**

