

AVF India

Indian at glance:

Geographically India is divided into 29 states and 7 union territories.

There is a tremendous difference in the combined population size across the state. India constitutes around 30 percent of the total population, which is around 309 million persons were migrants based on place of last residence. As a result of rapid economic growth for the past few decades, since the initiation of economic reforms in 1990, India has been experiencing rapid urbanization flow from rural to urban migration. Urban population growth in the developing countries is far more rapid than the population growth generally, about half the urban growth is accounted for by migrants from rural areas. Cities in the developing world are growing more rapidly than developed countries. Inequalities, insecurity, humiliation, agony, poverty and human unhappiness are also multiplying due to urbanization. These main problems will make worse, especially when aided by population explosion and increasing migration. The total population of India is 1028 million consisting of 532 millions males and 496 million females, according to 2001 census.

As per the Global Food Security Index.

- Indian is ranked no 72 out of 113 countries.
- GDP(\$PPP) - 11,226 billion
- Population - 1,366 million
- Land Area - 2,973,190 sq km
- Prevalence of undernourishment - 14.5 %
- Intensity of food deprivation - 105 kcal/person/day
- Human Development Index - 0.64 Rating 0-1
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Strengths (7) - score / 100

- 100 - Presence and quality of food safety net programmes
- 99.5 - Change in average food costs
- 95.3 - Volatility of agricultural production
- 93.3 - Urban absorption capacity
- 92.8 - Food safety
- 86.4 - Food loss
- 75 - Access to financing for farmers

"Strengths" are defined as any indicator score above 75.0

Sufficiency of Supply – 47.3%

Average food supply – 28.2%

Change in dependency on chronic food aid - 100%

**Public expenditure on agricultural R&D – 2.8% (-2.2%)**  
**Agricultural infrastructure – 38.8% (-9.3%)**  
**Existence of adequate crop storage facilities – 100% (+9.7%)**  
**Road infrastructure – 25% - (-21%)**  
**Port infrastructure – 25% (-28,1%)**  
**Air transport infrastructure – 50% (-9.1%)**  
**Rail infrastructure – 25% (-12.2%)**  
**Irrigation infrastructure 39.4% (+28.9%)**  
**Volatility of agricultural production 95.3% (+14.1%)**

**Political stability risk 66.7% (+17.1%)**  
**Corruption 25% (-13.5%)**  
**Urban absorption capacity 93.3% (+11.3%)**  
**Food Loss 86.4%**

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As per FAO Report.

With a population of 1.27 billion India is the world's second-most populous country. It is the seventh-largest country in the world with an area of 3.288 million sq kms. It has a long coastline of over 7,500 km. India is a diverse country where over 22 major languages and 415 dialects are spoken. With the highest mountain range in the world, the Himalayas to its North, the Thar desert to its West, the Gangetic delta to its East and the Deccan Plateau in the South, the country is home to vast agro-ecological diversity. India is the world's largest producer of milk, pulses and jute, and ranks as the second largest producer of rice, wheat, sugarcane, groundnut, vegetables, fruit and cotton. It is also one of the leading producers of spices, fish, poultry, livestock and plantation crops. Worth \$ 2.1 trillion, India is the world's third largest economy after the US and China.

India's climate varies from humid and dry tropical in the south to temperate alpine in the northern reaches and has a great diversity of ecosystems. Four out of the 34 global biodiversity hotspots and 15 WWF global 200 eco-regions fall fully or partly within India. Having only 2.4 percent of the world's land area, India harbours around eight percent of all recorded species, including over 45,000 plant and 91,000 animal species.

India's economic growth in the financial year 2018 is expected to accelerate to 6.75 percent in 2018 on improved performance in both industry and services. India is the world's [sixth-largest](#) economy by [nominal GDP](#) and the [third-largest](#) by [purchasing power parity](#) (PPP). The country ranks 139th in [per capita GDP \(nominal\)](#) with \$2,134 and 122nd in [per capita GDP \(PPP\)](#) with \$7,783 as of 2018 (World Bank data). Agriculture accounted for 23% of GDP, and employed 59% of the country's total workforce in 2016.[\[146\]](#)

Agriculture, with its allied sectors, is the largest source of livelihoods in India. 70 percent of its rural households still depend primarily on agriculture for their livelihood, with 82 percent of farmers being small and marginal. In 2017-18, total food grain production was estimated at 275 million tonnes (MT). India is the largest producer (25% of global production), consumer (27% of world consumption) and importer (14%) of pulses in the world. India's annual milk production was 165 MT (2017-18), making India the largest producer of milk, jute and [pulses](#), and with world's second-largest cattle population 190 million in 2012.[\[153\]](#) It is the second-largest producer of rice, wheat, sugarcane, cotton, and [groundnuts](#), as well as the second-largest fruit and vegetable producer, accounting for 10.9% and 8.6% of the world fruit and vegetable production, respectively.

However, India still has many growing concerns. As the Indian economy has diversified and grown, agriculture's contribution to GDP has steadily declined from 1951 to 2011. While achieving food sufficiency in production, India still accounts for a quarter of the world's hungry people and home to over 190 million undernourished people. The incidence of poverty is now pegged at nearly 30 percent. As per the Global Nutrition Report (2016), India ranks 114th out of 132 countries on under-5 stunting and 120th out of 130 countries on under-5 wasting and 170th out of 185 countries on prevalence of anaemia. Anaemia continues to affect 50 percent of women including pregnant women and 60 percent of children in the country.

While agriculture in India has achieved grain self-sufficiency but the production is, resource-intensive, cereal centric and regionally biased. The resource-intensive ways of Indian agriculture have raised serious sustainability issues too. Increasing stress on water resources of the country would definitely need a realignment and rethinking of policies. Desertification and land degradation also pose major threats to agriculture in the country.

The social aspects around agriculture have also been witnessing changing trends. The increased feminization of agriculture is mainly due to increasing rural-urban migration by men, rise of women-headed households and growth in the production of cash crops which are labor intensive in nature. Women perform significant tasks, both, in farm as well as non-farm activities and their participation in the sector is increasing but their work is treated as an extension of their household work, and adds a dual burden of domestic responsibilities.

India also needs to improve its management of agricultural practices on multiple fronts. Improvements in agriculture performance has weak linkage in improving nutrition, the agriculture sector can still improve nutrition through multiple ways: increasing incomes of farming households, diversifying production of crops, empowering women, strengthening agricultural diversity and productivity, and designing careful price and subsidy policies

that should encourage the production and consumption of nutrient rich crops.

Diversification of agricultural livelihoods through agri-allied sectors such as animal husbandry, forestry and fisheries has enhanced livelihood opportunities, strengthened resilience and led to a considerable increase in labour force participation in the sector.

**Indian agricultural sector employs more than 50% of India's population and contributes to only 14% of the GDP. It is known that India is an agricultural economy and it has the capacity to produce at least 3 crops in a year. The agricultural sector of India faces many problems**

- **Low productivity level**
- **Overuse of water and underdeveloped irrigation systems**
- **Extensive use of fertilizer and continuous cultivation for years affected the fertility of land.**
- **Small and fragmented landholders**
- **Lack of innovation in agriculture**

**These are main obstacles in a country with a rising population and urbanization as well as depleted land resources.**

**Fresh safe food production is urgently needed in a country where a majority lives on a mostly vegetarian diet.**

**Indoor/vertical farming has gained a great interest in India and is in high demand to innovate agriculture. The AVF Regional Chapter will help to spur knowledge and understanding as well as establishing trainings, pilot projects, and cooperation.**

**Mission is to change food for good by growing i produce in unattainable places;**

**Produce seasonal crops all year round through Controlled Environment.**

**Grow health produce that is pesticide free and environment polluted free.**

**Sustainable process from begin to end. Water saving upto 95%. We ensure use of green energy consumption staying low on energy cost to aim lessen carbon emissions for healthier Earth.**

**Grow locally: - Creating local employment and support local communities. Save transportation cost from rural to urban centers.**