

Harnessing the Demographic Dividend of India in Agriculture

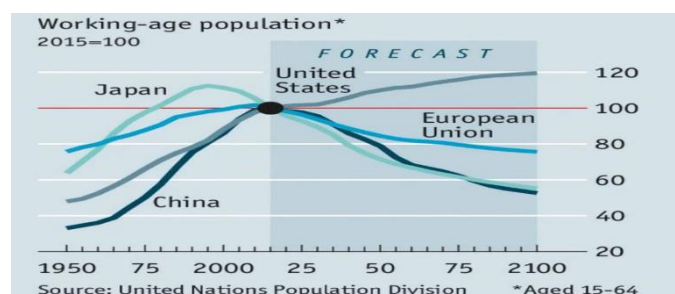
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Demographic dividend means the economic growth potential that can result from shifts in a population's age structure, mainly when the share of the working-age population (15-64 years) is larger than the non-working-age share of the population (14 and younger & 65 and older) (UNFPA 2020). Demographic dividend has historically contributed up to 15 % of the overall growth in advanced economies. With fewer births each year, a country's working-age population grows larger relative to the young dependent population. With more people in the labor force and fewer children to support, a country has a window of opportunity for economic growth if the right social and economic investments and policies are made in health, education, governance, and the economy. These population parameters indicate an availability of demographic dividend in India, which started in 2005-06 and will last till 2055-56.

Harnessing the demographic dividend of India in agriculture can be a key driver for sustainable economic growth and development. The demographic dividend refers to the potential economic benefit a country can achieve when the proportion of its working-age population is relatively larger than the dependent population (children and elderly). India, with a large and growing young population, has the opportunity to leverage this demographic advantage in the agricultural sector.



India has one of the youngest populations in an aging world. In 2020, the median age in India will be just 28, compared to 37 in China and the US, 45 in Western Europe, and 49 in Japan. Since 2018, India's working-age population (people between 15 and 64 years of age) has grown larger than the dependent



population – children aged 14 or below as well as people above 65 years of age. This bulge in the working-age population is going to last till 2055, or 37 years from its beginning. This transition occurs largely because of a decline in the Total Fertility Rate (TFR, which is the number of births per woman) after the increase in life expectancy gets stabilised. According to Economic Survey 2018-2019, the Demographic Dividend of India will be at a peak around 2041, when share of working-age population is expected to hit 59% and thereafter it will start declining.

Table 1. Status of demographic dividend in india (as per 2021 census data)

Indicator	Status
Total Population	Approximately 1.3 billion
Population Growth Rate	Declining, but still positive
Working-Age Population (%)	Approximately 66%
Median Age	Around 28-30 years
Dependency Ratio	Decreasing due to declining birth rates
Youth Unemployment Rate	Varied across states, relatively high
Rural-Urban Migration	Significant rural-to-urban migration
Education Levels	Improving, but disparities exist
Agricultural Workforce	Still a substantial portion of the labor force
Technological Adoption	Increasing, but disparities in adoption exist
Government Initiatives	Several programs and policies to promote agricultural growth and skill development

Agriculture continues to be a vital industry in India as of 2021, giving employment and a means of subsistence to a sizeable portion of the population, particularly in rural areas. The proportion of India's labour force employed in agriculture in 2020, as reported by the World Bank, was almost 43%. This suggests that about 50% of India's workforce was employed in agricultural pursuits.

It's important to note as the economy has become more diverse and non-agricultural industries have expanded, the proportion of the labour force employed in agriculture has been steadily declining over time. Employment patterns have shifted away from agriculture as a result of urbanization, increased industrialization, and the expansion of the services sector.

Constraints And Prospects of Harnessing Demographic Dividend:

Constraint

There are several constraints faced for harnessing the demographic dividend:

- **Rural-Urban Migration:** India has been witnessing significant rural-to-urban migration as young people move to cities in search of better economic opportunities. This migration can lead to labour shortages in the agricultural sector, making it challenging to harness the demographic dividend fully.
- **Outdated Agricultural Practices:** A large part of India's agricultural sector still relies on traditional and outdated farming methods. To harness the demographic dividend, there is a need to modernize agriculture through technological advancements, improved irrigation systems, and the adoption of best practices.
- **Land Fragmentation:** In India, land holdings are often small and fragmented due to inheritance laws. This fragmentation can hinder economies of scale and modernization efforts, making it difficult to optimize agricultural productivity.
- **Climate Change and Water Scarcity:** Agriculture is highly dependent on climate and water resources. Climate change and water scarcity issues can negatively impact agricultural productivity and pose challenges for harnessing the demographic dividend.
- **Lack of Skills and Training:** Many young people in rural areas lack the necessary skills and training to participate in modern agricultural practices. Proper training and

skill development programmes are essential to leverage their potential effectively.

Prospects

There are several constraints faced for harnessing the demographic dividend:

- **Youthful Workforce:** India's youthful workforce can be a significant asset in the agricultural sector. By providing the right incentives and training, young people can bring innovation, energy, and enthusiasm to agriculture.
- **Technological Advancements:** Embracing technology and innovation in agriculture can revolutionize the sector. From precision farming and use of drones to IoT devices for better monitoring, technology can enhance efficiency and productivity.
- **Diversification and Value Addition:** Encouraging farmers to diversify their crops and engage in value addition can open new markets and increase their income levels.
- **Rural Entrepreneurship:** Supporting and promoting rural entrepreneurship can lead to the development of agribusinesses, food processing units, and other related industries, creating more job opportunities and contributing to economic growth.
- **Investment in Infrastructure:** Improving rural infrastructure, such as irrigation facilities, transportation networks, and storage facilities, can boost agricultural productivity and reduce post-harvest losses.

- **Government Initiatives:** The Indian government plays a crucial role in promoting agricultural growth. By implementing policies that encourage investment, research, and development in agriculture, the government can create an enabling environment for harnessing the demographic dividend.

Conclusion

The growing population and its significance on nation's growth is a two-way phenomenon. The increase in population adds to growth and development of a country by supplying workforce, but at the same time adding up to the count of number of dependent individuals to the economy. India's demographic dividend will prove to be advantageous if the huge potential of the working age human resources are channelized rightly, which implies gainful employment of the available workforce. The Govt. of India also formulates numerous schemes for qualitative development of different domains of targeted livelihood. Till date, plans have been developed for sectoral domains, but no comprehensive strategy has been devised to integrate the natural resources with human resources. The NITI AAYOG and policy makers should take into consideration a comprehensive planning for capacity building from the grass-root to national level which will lead to an effective transformation. This will establish India as a leading economy globally.

Table 2. AGRICULTURAL LABOUR FORCE IN INDIA-HISTORICAL DATA

Year	Total Labor Force (Millions)	Agricultural Labor Force (Millions)	Percentage of Agricultural Labor Force in Total Labor Force (%)	Source
2000	391.2	241.1	61.6	ILO, Census of India
2005	446.5	224.5	50.3	ILO, Census of India
2010	480.2	209.4	43.6	ILO, Census of India
2015	517.6	195.6	37.7	ILO, Census of India
2020	541.3	186.4	34.4	ILO, Census of India

Source: International Labour Organization (ILO), Census of India data.

Table 3: How demographic dividend will promote national economy of India

Aspect	Explanation	Source
Increased Labor Force Participation	A large working-age population can lead to more people actively participating in the labor market, contributing to economic productivity and growth.	World Bank - India Development Update, 2021
Higher Savings and Investment	With a growing working-age population, higher savings rates are expected, which can lead to increased domestic investment, supporting economic development.	IMF - India: 2020 Article IV Consultation
Increased Consumer Demand	A youthful population means an expanding consumer base, driving domestic demand for goods and services, boosting economic activity.	India Brand Equity Foundation (IBEF) - Demographics
Urbanization and Industrialization	A youthful population can fuel urbanization and industrial growth as young people migrate to cities for better job opportunities.	McKinsey Global Institute - India's Turning Point
Technological Innovation	Younger populations are often more tech-savvy and can drive technological innovation, enhancing productivity and economic competitiveness.	PwC India - India's Demographic Dividend
Entrepreneurship and Startups	The demographic dividend can foster entrepreneurship, leading to the creation of startups and innovative businesses, driving job creation and economic diversification.	NITI Aayog - India Innovation Index 2020
Skilled Workforce	Investments in education and skill development can create a more skilled and adaptable workforce, attracting foreign investment and boosting productivity.	International Journal of Advanced Research and Publications - Demographic Dividend: A Study

Table 4. Government schemes for harnessing demographic dividend India

Scheme name	Objective	Source
Pradhan Mantri Kaushal Vikas Yojana (PMKVY)	Skill development and vocational training for youth to enhance employability	https://www.pmkvyofficial.org/
National Apprenticeship Promotion Scheme (NAPS)	Encouraging industries to engage apprentices and provide skill-based training	https://apprenticeshipindia.org/
Pradhan Mantri Mudra Yojana (PMMY)	Providing financial support to small and micro-enterprises	https://www.mudra.org.in/
National Skill Development Mission (NSDM)	Enhancing the employability of the workforce through skill development	https://www.skilldevelopment.gov.in/
Skill India Mission	Focused on providing training and skill development to the Indian workforce	https://www.skillindia.gov.in/

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