



Workers harvesting bananas in the fields at Tandalwadi village in Jalgoan, India.

## Context

India is home to about 17 percent of the world's population, 15 percent of its livestock, eight percent of its biodiversity, nine percent of its arable land, and four percent of its water resources. While India is self-sufficient in food production, 39 percent of its population is under-nourished and it ranks 103 out of 119 countries in the 2018 Global Hunger Index. Small and fragmented landholdings, poor access to credit and modern inputs, high dependence on rainfall, and inadequate processing infrastructure are key constraints. Capital investments in agriculture have a bias towards irrigated areas, with rural employment programmes being seen as the main solution to the crisis facing rainfed and dryland areas.

Climate risks to food security, livelihoods, water supply and human well-being are projected to increase with rising temperatures. Changes in rainfall patterns, along with heatwaves and reduced availability of water, could lower farm incomes by 20 to 25 percent in the coming decades.

Agriculture contributes about 17.4 percent of Gross Value Added (GVA) and 12.8 percent of total exports. Some 70 percent of rural households depend on agriculture, with 82 percent of farmers being small and marginal. Forest cover accounts for 21.5 percent of the country's area, with trees outside forests contributing a further 2.8 percent of green cover. Forests are the lifeline of at least 250 million Indians who depend on them for food, fuel, fodder and non-timber forest products. At the same time, degradation affects one-third of the land, at a cost of about 2.5 percent of GDP.

---

# Critical transitions

All ten critical transitions are addressed in national government policy. The following four are priorities:

1

---

**Healthy diets.** To tackle lifestyle diseases, the Eat Right Movement, launched by the Food Safety and Standards Authority of India in 2017, ushered in a new food culture by nudging businesses and consumers to cut down on salt, sugar and trans-fats. The government passed a National Food Security Act in 2013 that provides legal entitlements for food and nutritional security. This includes the Midday Meal Scheme for schoolchildren, an Integrated Child Development Services scheme for expectant and lactating mothers and their infants, and a Public Distribution System to ensure food grains are available at affordable prices to poorer families.

2

---

**Productive and regenerative agriculture.** Recognising the effects of input-intensive and environmentally exploitative agricultural production, as well as the adverse impacts of climate change, the National Mission on Sustainable Agriculture has laid out the broad contours of a plan to transform agriculture. Several state governments have taken strong action in recent years to promote sustainable practices, including a Zero Budget Natural Farming programme in the state of Andhra Pradesh.

3

---

**Protecting and restoring nature.** The government has set domestic targets, including under the National Mission for Green India to restore, maintain and improve forest cover. The Forest (Conservation) Act of 1980 contains stringent provisions against diversion of forest land for non-forest purposes, but its implementation is coming into increasing conflict with infrastructure development, urbanisation, mining, power generation and shifting cultivation. The 14th Finance Commission of India has established the largest ecological fiscal transfer in the world, through horizontal tax devolution and incentives to states to protect and restore their forests.

4

---

**Stronger rural livelihoods.** Several policy measures aimed at increasing farmers' incomes, as well as reducing the cost of cultivation, have been launched by the government, including improved resource efficiency (more crop per drop), drought-resilient seeds and nutrient use, integrated pest management, promotion of agroforestry, in situ conservation of biodiversity to tackle climate change, and expansion of integrated farming systems. The National Rural Livelihoods Mission of the Union Government, for instance, is creating self-help groups to increase opportunities for women in agriculture and create livelihood opportunities in off-farm and non-farm sectors.