

Revealing the Hidden Production Costs of India's Public Distribution System

The PDS creates \$6.1 billion in yearly environmental and health costs

The Public Distribution System (PDS) provides subsidized food grain to more than 800 million people in India. Although the PDS helps to feed some of the country's most impoverished citizens, there are costs associated with the production of staple food grains that are not accounted for in the cost of the program. The Tata-Cornell Institute for Agriculture and Nutrition (TCI) is utilizing true cost accounting to quantify these costs. This policy brief focuses on some of these hidden production-related costs in 2019–20, such as costs associated with greenhouse gas emissions, water use, and pollution resulting from the burning of crop residue.

TCI's future work will quantify and integrate into this analysis the production- and consumption-related costs associated with health, environment, biodiversity, economy, and livelihoods. TCI will use this information to compare the true cost of the current PDS food basket with two alternative food baskets

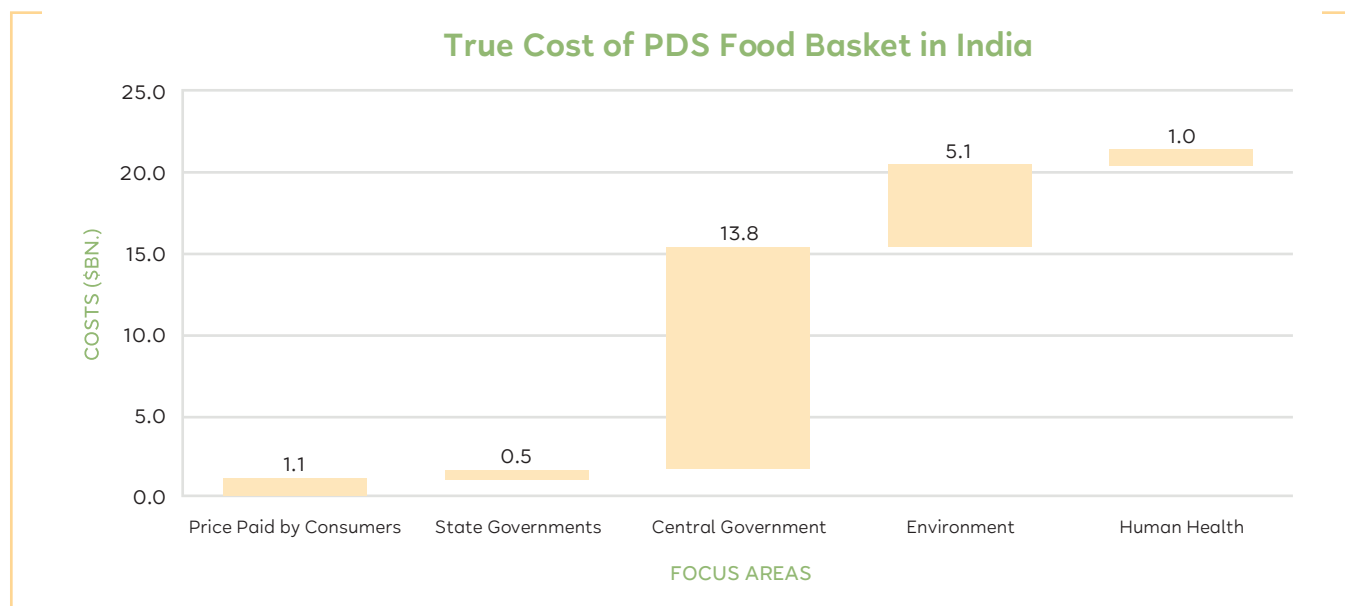
that promote the inclusion of more nutritious food items such as pulses and millets and emphasize local procurement in the PDS, respectively.

Environmental and Health Impacts Add \$6.1 Billion to the Cost of the PDS

In 2019-20, the average market price for a kilogram of rice and wheat in India was approximately ₹33 and ₹27, respectively,

	Rice	Wheat
PDS consumers	3	2
Farmers	18.15	18.4
Market price	33	27

compared to the PDS price of ₹3 and ₹2. The gap in these prices was filled by a subsidy of



US\$13.8 billion from the central government to procure, store, transport, and distribute food grain through the PDS. Many state governments further reduced the price of PDS rice and wheat; in states such as Kerala and Tamil Nadu, the PDS food grain is provided free of cost.

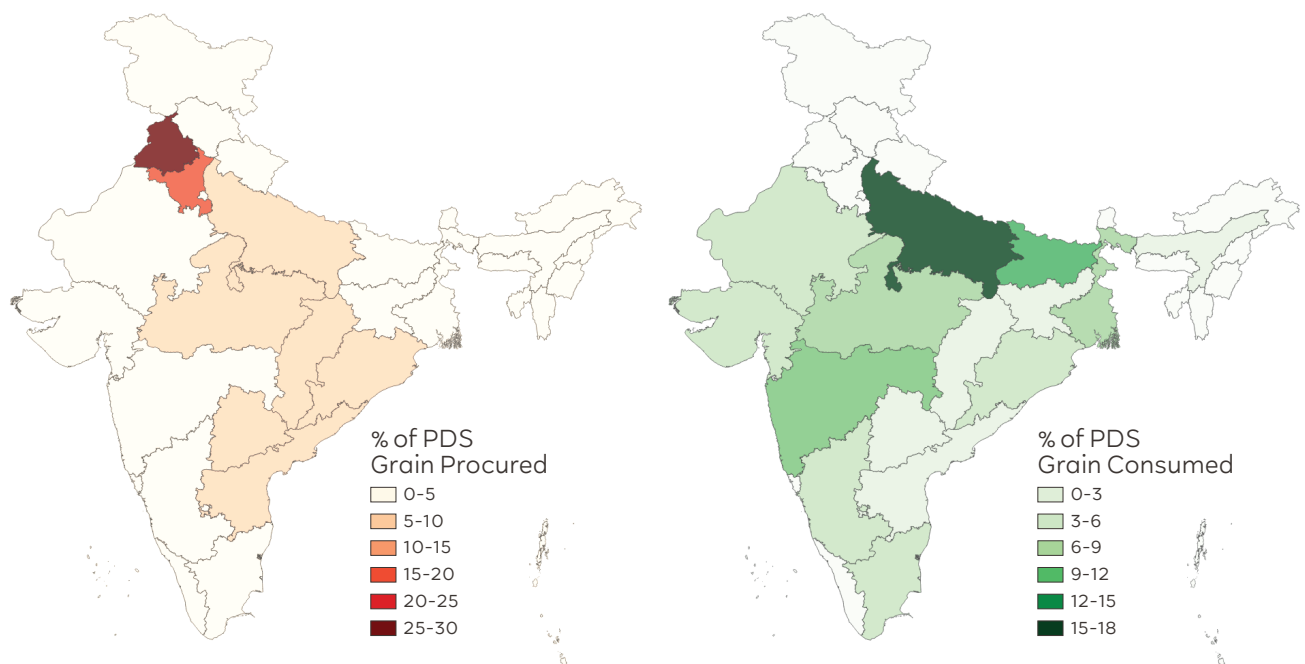
In addition to these direct costs, based on TCI's preliminary estimates, the production of rice and wheat for the PDS results in \$5.1 billion in environment-related costs caused by greenhouse gas emissions and water use, as well as \$1 billion in health-related costs caused by the burning of crop residue, which increases acute respiratory infections. Accounting for these additional costs, the true cost of rice

and wheat distributed through the PDS is 40% higher than the cost borne by the government and consumers.

Unequal Procurement Implies Unequal Costs

Publicly available procurement and consumption data highlight a mismatch between the suppliers and consumers of the PDS rice and wheat. Half of the PDS rice and wheat is procured from just two states, Punjab and Haryana. Despite the government's efforts to promote decentralized purchasing since the late 1990s, six states continue to account for approximately 80% of procurement. Although this benefits farmers in supplier states, it also

PDS Procurement and Consumption



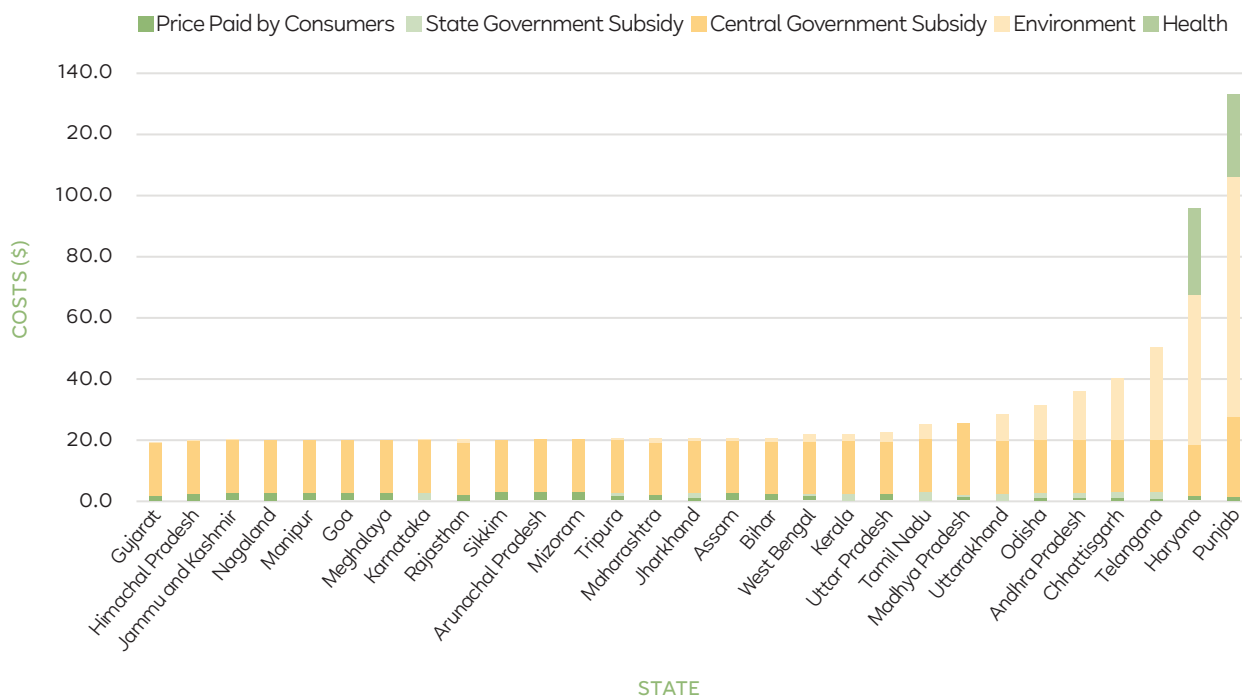
results in environmental and health costs for their populations.

Most of the environmental and health costs associated with the production of the PDS rice and wheat are borne by Punjab and Haryana. This not only raises concerns over the effects of the concentration of the PDS procurement in northwest India, but also highlights the incentivization of intensive rice and wheat cultivation over other crops in the region. Decentralizing procurement has the potential to increase livelihood opportunities in other poorer states in eastern India and reduce the harmful effects of intensive cultivation in Punjab and Haryana.

About TCI's True Cost of Food Subsidies in India Project

With growing concerns over food-related impacts on the environment, biodiversity, health, the economy, and livelihoods, true cost accounting has emerged as a holistic tool to estimate direct and indirect costs associated with food systems. True cost accounting quantifies the “hidden costs and value” that are not reflected in prices paid upfront by consumers and helps identify food-related impacts from farm to plate. TCI is using this approach to estimate the true cost and hidden value of food subsidies in the PDS, India’s national food-based safety net.

Per Beneficiary True Costs of the PDS Food Basket



The Public Distribution System

The Government of India spent \$13.8 billion on food subsidies in 2019–20. Most of these funds were spent procuring rice and wheat from India’s farmers and distributing it through the PDS to approximately 60% of the population at highly subsidized rates. From a nascent, food-based safety net program in the late 1990s to a strong pillar of the successful implementation of India’s National Food Security Act (NFSA) in 2013, the PDS has come a long way.

India’s PDS in Numbers (2019–20)

796.5 million NFSA beneficiaries

5 kg food grain per person/month

35 kg food grain per family/month for the ‘poorest or poor’ households

₹3 per kg for rice

₹2 per kg for wheat

533,897 PDS shops

While the PDS plays a pivotal role in providing food insecure households access to a steady supply of food grain, there are costs associated

with the production of rice and wheat that are not accounted for in the prices paid by the PDS consumers and costs incurred by producers.

Comparing the True Costs of the Current PDS Food Basket with Alternatives

Though the PDS has played a vital role in ensuring a steady supply of staple grains to food-insecure households, the current food basket emphasizes staples over more nutritious food items, such as millets and pulses, and the majority of the PDS grains are procured from a few states.

TCI aims to study these disparities by estimating the true cost of two alternative PDS food baskets: an “augmented” basket that includes pulses, and a “locally-sourced” basket that emphasizes local procurement and includes millets. This study will then compare the current PDS food basket with these alternatives by identifying and quantifying the production- and consumption-related impacts of each on five focus areas: health, environment, biodiversity, economy, and livelihoods. The results will help recognize the hidden value of the PDS, address hidden costs, and maximize the impact of government expenditure.



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