



## Subsidies and Climate Change

**Prelims:** [World Bank](#), [Gross domestic product](#), [Air pollution](#), [Pradhan Mantri Kisan Samman Nidhi](#), [Pradhan Mantri Ujjwala Yojana](#), [Climate change](#)

**Mains:** Positive and Negative Impacts of Subsidies, Challenges Related to Subsidies

### Why in News?

A new [World Bank](#) report highlights the negative consequences of **inefficiently subsidizing agriculture, fishing, and fossil fuel sectors**, both implicitly and explicitly, by spending trillions of dollars, exacerbating [climate change](#).

- In total, the report calculated that subsidy in the three areas exceeded **USD 7 trillion**, equivalent to **8% of the global gross domestic product**.

### What are the Major Highlights of the Report?

- **Fossil Fuel Subsidies and Climate Change:**
  - The report acknowledges the **limited effectiveness of reducing incentives for polluting fuels**, as energy demand is not highly responsive to price changes.
  - In 2021, countries spent **USD 577 billion on subsidies** aimed at **lowering the prices of polluting fuels like oil, gas, and coal**.
    - These measures incentivize the overuse of fossil fuels and contribute to air pollution, particularly in industrializing middle-income countries with a high health burden.
  - The report highlights the disproportionate allocation of funds, as most countries spend six times more on subsidizing fossil fuel consumption than on commitments made under the 2015 Paris Agreement.
- **Inefficient Agricultural Subsidies:**
  - **Explicit subsidies** in the agricultural sector amount to approximately **USD 635 billion annually in countries with accessible data**, while global estimates exceed USD 1 trillion.
    - These subsidies target farmers for purchasing specific inputs or cultivating particular crops.
  - Research published in the report indicates that **subsidies tend to favor wealthier farmers**, even when programs are designed to target the poor.
  - **Inefficient subsidy usage has resulted in up to 17% of all nitrogen pollution** in water over the past **30 years**, leading to health impacts and reducing labor productivity by up to **3.5%**.
- **Damaging Subsidies in the Fisheries Sector:**
  - The fisheries sector receives an estimated **USD 35.4 billion per year** in subsidies, of which approximately **USD 22.2 billion contributes to overfishing**.
    - Subsidies play a significant role in driving excess fishing capacity, depleting fish stocks, and reducing fishing rents.

- When fisheries are not managed sustainably and already severely depleted, the negative impacts of subsidies are even more pronounced.
  - **Repurposing subsidies without incentivizing increased fishing capacity** is crucial for safeguarding remaining fish stocks.

## What are the Positive Impacts of Subsidies?

### ▪ Agriculture:

- **Income Support:** Subsidies can provide income support to farmers, helping them **cope with price fluctuations, market uncertainties, and production risks.**
  - For instance, the [Pradhan Mantri Kisan Samman Nidhi \(PM-KISAN\)](#) scheme launched in 2019 provides direct income support to small and marginal farmers.
- **Increased Production:** Subsidies on inputs like **fertilizers, seeds, and irrigation** can promote increased agricultural production.
  - The Indian government's support for fertilizers through the [Nutrient-Based Subsidy \(NBS\)](#) scheme ensures the availability of fertilizers at affordable prices to farmers.

### ▪ Fishery:

- **Modernization and Infrastructure Development:** Subsidies in the fishery sector can aid in the modernization of fishing practices and the development of infrastructure.
  - This can lead to increased productivity, improved safety measures, and better storage facilities.
  - The [Pradhan Mantri Matsya Sampada Yojana \(PMMSY\)](#) aims to enhance fish production and fishermen's welfare through various interventions, including infrastructure development..
- **Livelihood Support:** Subsidies can provide livelihood support to fishermen, especially during lean seasons and adverse climatic conditions.
  - Schemes like the **National Scheme of Welfare of Fishermen** provide assistance to fishermen for the construction and repair of boats, supply of safety equipment, and training programs.

### ▪ Fossil Fuel:

- **Energy Access and Affordability:** Subsidies on fossil fuels, **such as LPG (liquefied petroleum gas) and kerosene**, can ensure energy access and affordability for vulnerable sections of society.
  - The Indian government launched the [Pradhan Mantri Ujjwala Yojana \(PMUY\)](#) to increase LPG usage and reduce air pollution, deforestation, and health disorders

## What are the Challenges Related to Subsidies?

- **Fiscal Burden:** Subsidies often impose a significant fiscal burden on the government.
  - The cost of subsidies can **strain the government's finances and impact its ability to allocate resources** to other critical sectors such as healthcare, education, and infrastructure development.
  - Balancing the need for subsidies with fiscal sustainability is a constant challenge.
- **Inefficient Targeting:** One of the major challenges is ensuring that subsidies reach the intended beneficiaries effectively.
  - There is a **risk of subsidies being misdirected or captured by ineligible individuals or entities.**
  - **Proper identification and targeting mechanisms** are essential to avoid leakages and ensure that subsidies benefit the intended recipients.
- **Market Distortions:** Subsidies can **distort market dynamics and create inefficiencies.** They may lead to **overproduction or overconsumption of certain commodities**, leading to market imbalances and price distortions.
  - These distortions can affect the competitiveness of the sector and hinder the development of a sustainable and market-oriented agricultural, fishery, or energy sector.
- **Environmental Implications:** Subsidies on fossil fuels can **discourage the transition to cleaner and more sustainable energy sources.**
- They can **perpetuate the reliance on fossil fuels, contributing to environmental degradation, air pollution, and climate change.**

## Way Forward

- **Targeted Subsidy Reforms:** Implement targeted subsidy reforms to ensure that subsidies reach the intended beneficiaries effectively.
  - This can be **achieved through the use of technology, such as Aadhaar-linked identification systems**, to improve targeting accuracy and reduce leakages.
- **Gradual Reduction and Rationalization:** Gradually reduce and rationalize subsidies to ensure fiscal sustainability and minimize market distortions.
  - Instead of **across-the-board subsidy cuts, a phased approach can be adopted, focusing on reducing subsidies for the affluent and gradually** redirecting funds towards investments in infrastructure, research and development, and capacity building in the respective sectors.
- **Promote Sustainable Practices:** Encourage the adoption of sustainable practices in agriculture, fishery, and energy sectors through subsidies.
  - This can include providing **incentives for the use of organic farming techniques, efficient irrigation systems**, eco-friendly fishing practices, and renewable energy technologies.
  - **Subsidies should be designed to incentivize innovation, productivity improvements, and environmental conservation.**

## UPSC Civil Services Examination Previous Year Question (PYQ)

### Prelims

**Q. With reference to chemical fertilizers in India, consider the following statements: (2020)**

1. At present, the retail price of chemical fertilizers is market-driven and not administered by the Government.
2. Ammonia, which is an input of urea, is produced from natural gas.
3. Sulphur, which is a raw material for phosphoric acid fertilizer, is a by-product of oil refineries.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 and 3 only
- (c) 2 only
- (d) 1, 2 and 3

**Ans: (b)**

### Mains:

**Q1.** How do subsidies affect the cropping pattern, crop diversity and the economy of farmers? What is the significance of crop insurance, minimum support price and food processing for small and marginal farmers? **(2017)**

**Q2.** In what way could replacement of price subsidy with direct benefit Transfer (DBT) change the scenario of subsidies in India? Discuss. **(2015)**

**Q3.** What are the different types of agriculture subsidies given to farmers at the national and at state levels? Critically, analyse the agricultural subsidy regime with reference to the distortions created by it. **(2013)**

**Source: DTE**

PDF Refernece URL: <https://www.drishtias.com/printpdf/subsidies-and-climate-change>

