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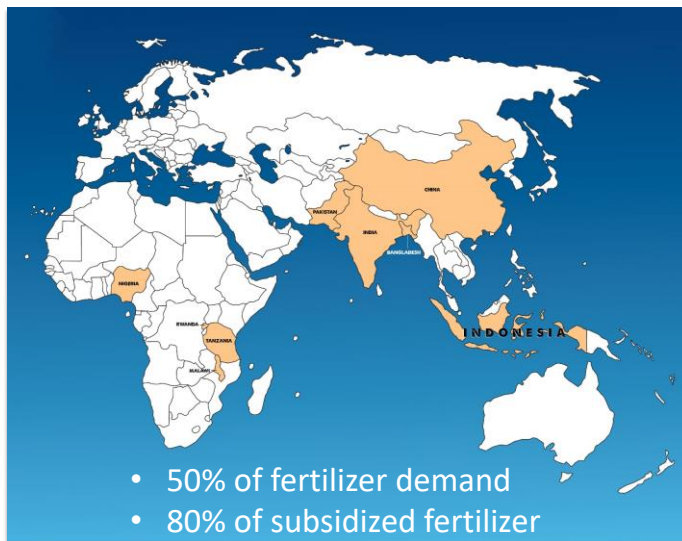
Fertilizer Subsidy Policies in Selected Countries

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Developing Agriculture From the Ground Up



China, India, Bangladesh, Pakistan, Indonesia, Nigeria, Rwanda, Malawi, and Tanzania



Types of Fertilizer Subsidies

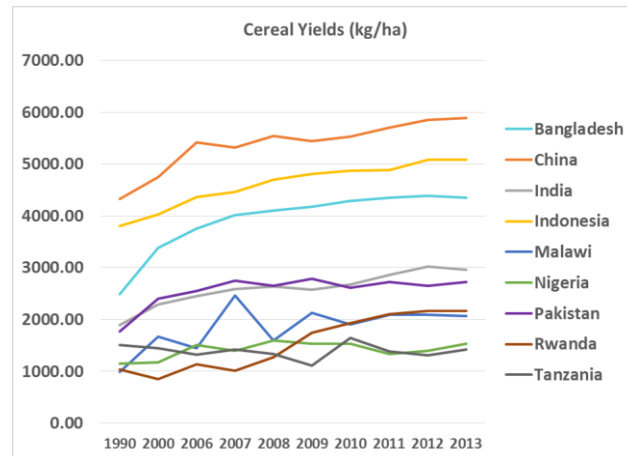
- Traditional (Asia)
 - Government support for production, importation and distribution of fertilizers
 - Sales at pan-territorial subsidized prices *via* state owned enterprises
 - Universal availability to farmers & history of use
- “Smart” (Sub-Saharan Africa)
 - Land locked countries with substantial inland transport
 - Sporadic fertilizer subsidies; low fertilizer use
 - Private Sector Involvement
 - Targets Poor Farmer and/or Specific Crops
 - Exit Strategy

Comparison of Fertilizer Subsidy Expenditure, 2011

Country	Total Gov. Exp. (as % of GDP)	Total Gov. Exp. (US \$ M)	Fertilizer Subsidy (US \$ M)	Subsidy as % of Total Gov. Exp.
Bangladesh	9.80%	12,607	1,498	11.9%
China	22.57%	1,691,042	21,810	1.3%
India	14.30%	262,521	14,610	5.6%
Indonesia	15.00%	133,945	1,520	1.1%
Pakistan	17.60%	37,621	506	1.3%
Nigeria	6.00%	24,705	409	1.7%
Malawi	15.00%	844	148	17.5%
Rwanda	15.00%	961	10	1.0%
Tanzania	16.60%	5,624	64	1.1%
Total	12.59%	2,169,870	40,575	1.87%

Sources: Derived from current review papers and World Bank Database.

Cereal Yields (kg/ha) for Nine Countries, 1990-2013



Impact of Commodity Price Volatility (2007/08)

Fertilizer Subsidy Cost (2006-11)

- 22% increase
- \$31.3-\$38.2 billion

Subsequent fall from 2014

Fertilizer Subsidy Implementation

- Domestic Fertilizer Production Costs Subsidized to Lower Fertilizer Prices to All Farmers in Bangladesh, China, India, Nigeria, and Pakistan
- Imported Fertilizer Subsidized in All Countries
- Transportation Subsidies

China

- Two Sets of Policies
 - Subsidy to promote domestic fertilizer production
 - Market intervention and trade restriction policies aimed to control domestic fertilizer price and secure supply
- Formal Agricultural Subsidy Program (2004) was provided an Aggregate Input Subsidy (fertilizers, seeds, CPPs, machinery)
- \$12 billion (2011) – \$17 billion (2014)
- Total agriculture subsidy (production, inputs, grain) = \$21 billion (2011)

India

- Domestic production 90% (2000), 56% (2011/12)
- Heavy emphasis on subsidizing urea
- Fertilizer subsidy = \$21 billion (2008/09)
\$11 billion (2013/14)
- Nutrient-based subsidy (2010)
- Significant nutrient imbalances

Pakistan

- Fertilizer industry progressively privatized between 1996 and 2005
- Natural gas allocated to fertilizer industry (16%)
- Subsidy increased from 35% (1995) to 75% (2011) or from \$79 million to \$506 million
- Urea production capacity increased by 45% since 2005 but no increase in total natural gas supply

Pakistan (cont.)

- Imports of urea, DAP, and MOP (2008)
- Subsidies on imported fertilizer, 2006/07-2009/10 based on difference between import and domestic prices
- Subsidies on P and K dropped 2010/11
- Urea exempted from sales tax 2001-2011; loss revenue estimated at \$363 million
- Established domestic urea industry, vibrant private agribusiness sector and use by farmer increased 14X (1971-2014)

Indonesia

- Subsidy for domestic production
- Subsidized CRP applied to limited amounts of fertilizer per farmer (ration)
- Urea production subsidy converted to natural gas subsidy price subsidies revised (2003-08)
- Farmers' access to subsidized fertilizer restricted (<2 ha/season; actual crop area needed), not happening
- From 2006-14, subsidy burden increased from \$336 million to \$1.71 billion

Bangladesh

- Gradually privatized by 1992
- 1994-95 setback (urea scarcity)
- 300,000 mt imports 1996-
- Public-private partnership
- Average level of subsidization (2005-14)
 - >60.2% urea
 - 38.8% TSP
 - 41.0% MOP
 - ~\$1 billion/year (2013 and 2014)

Nigeria

- Urea and NPK production capacity, imports significant, tendered through private sector
- Total subsidies ranged from 65-85%
- Prior to 2011 fertilizer distributed to all farmers
- Growth Enhancement Support Program (2011)
 - Federal government withdrew from procurement and distribution; targeted subsidy program based on vouchers (40-50% subsidy) + 5 kg seed

Malawi

- Liberalized in 1990s; dependent on imports
- Three supply chains (private sector, national farmer association & government subsidy channel)
- FISP (2005) established by MoAFS
 - Vouchers 50 kg urea+50 kg NPK; seed
- Subsidy costs consumed 23% of national budget & 42% of agriculture budget (2014); negative impact on private sector development; diversion from intended beneficiaries; complicated voucher redemption

Rwanda

- Import dependent; Landlocked
- Crop Intensification Program (CIP) initiated in 2007
 - Government procured, auction for regional distribution to private sector importers
 - Winning bidders paid 30% down payment, credit passed to agro-input dealers/farmer cooperatives to farmers
 - Beneficiary farmers selected by MINAGRI (vouchers provided 50 kg DAP or NPK; 25 kg urea + seed + extension)
 - Substantial increase in fertilizer use and crop production, but unpaid credit by 2012 = \$20 million
 - Major changes in 2013; subsidy discontinued in 2014

Tanzania

- Traditional subsidy program prior to 2001; subsidy removed 2001-2002; imports decreased + Minjingu phosphate rock
- New subsidy program in 2004-Fertilizer use increased 8X by 2008
- Voucher program (2008) included 50% of the cost of 50 kg DAP or 100 Kg of Minjingu Mazo, 50 kg urea, improved seed (maize or rice)
- Well targeted beneficiaries, but no credit access

Fertilizer Subsidies Pros and Cons

- Pros
 - Supported increase food production; food security
 - Supported domestic fertilizer production
 - Popular with politicians and farmers
- Cons
 - Costs not sustainable; More cost effective measures including diverse public expenditures for agriculture
 - Bias toward N fertilizers at the expense of balanced plant nutrition
 - Targeting subsidies not effective in most cases

Recommendations by Country-China

- Domestic production integrated into global fertilizer trade
- Subsidy restricted/targeted to poor farmers
- Subsidy should promote balanced plant nutrition in order to reduce N overuse
- Seasonal inventory subsidies should be reduced/removed
- Subsidy reductions should allow for other rural and agriculture investments

Recommendations by Country-India

- Decontrol of industry over 3-5 years period
- Secure and increase supply of natural gas
- Standardize natural gas pricing for 26 gas based fertilizer plants
- Decontrol expected to increase farm level price 3X, to compensate smallholders (< 2 ha) 5,000 Rs/ha; other farmers Rs 4,000/ha for 3 years
- Remaining subsidy focused on balanced plant nutrition

Recommendations by Country-Pakistan

- Simultaneously remove natural gas subsidy and the General Sales Tax
- Liberalization costs not substantial, but will require secure natural gas supply for urea/ammonia plants

Recommendations by Country-Malawi, Nigeria, Rwanda and Tanzania

- Fertilizer subsidy part of agriculture policy for foreseeable future
- Clear trends evolving with some countries targeting pro-poor strategies, while others focused on national food security target all farmers
- Subsidy programs expected to expand beyond fertilizers and seeds to integrated subsidies
- Possible linkages between subsidies and fertilizer blending companies
- Increasing role for private sector in procurement and distribution

General Recommendations

- Asia
 - Rationalize and limit fertilizer subsidies only to farmers who need assistance
 - Fully commercialize and rationalize the fertilizer production industry over a 3-5 year period
- Sub-Saharan Africa
 - Targeting of farmers based on governments objectives
 - Subsidies needed to promote fertilizer use
- Common to Asia & Sub-Saharan Africa
 - Holistic interventions/investments
 - Clear exit strategy
 - Governance and political commitment

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Which Way Forward?



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