

Energy Subsidies in Bangladesh: Challenges and Opportunities

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Energy Subsidies in Bangladesh

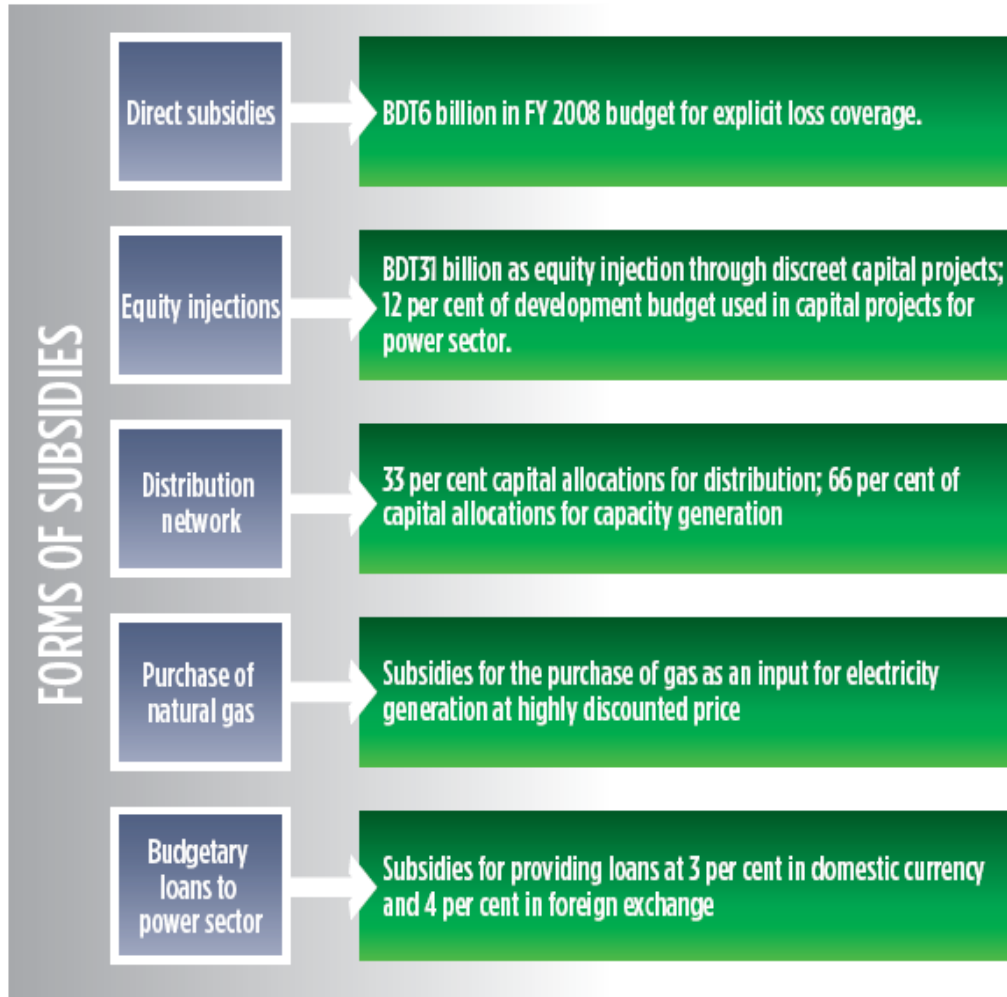
- Total subsidies in FY2011-12 (FY12) around Tk. 320 billion (US\$ 3.9 billion)
- This is more than 4 percent of GDP and nearly a quarter of the total budget; equivalent to what the government spends on education and more than health and social welfare expenditures
- Total energy subsidies for FY12 estimated at more than Tk.282 billion (US\$3.4 billion), 90 percent of the total amount spent on all subsidies. Nearly 34 percent of these subsidies are off-budget, such as government loans for BPDB at favorable lending rates.

Estimated Energy Subsidies in FY12

	Cost per unit (BDT)	Selling price per unit (BDT)	Profit/loss per unit (BDT)	Quantity (million units)	Total subsidies (billion BDT)
1. Power	3.1	2.9	-0.12	25,747.3	8.45
Residential	3.1	3.3	0.24	2,557.7	-0.27
Agricultural	3.1	1.9	-1.16	151.1	0.18
Industrial	3.1	4.4	1.29	2,109.2	-2.35
Commercial	3.1	6.0	2.98	645.5	-1.77
Bulk	3.1	2.7	-0.41	2,0136.5	12.77
Others	3.1	3.9	0.83	147.4	-0.10
2. Rental power plants	...	...	...	...	123.56
3. Gas	...	...	...	705.5 (BCF)	-3.46
National	65.1	147.3	82.2	331.6 (BCF)	-27.1
International gas companies	210.0	147.3	-52.7	373.9 (BCF)	23.6
4. Petroleum	...	...	...	8,183.0 (m Lit.)	153.8
Petrol	88.5	81.0	-7.5	152.0	1.3
Octane	89.5	84.0	-5.5	111.1	0.7
Diesel	79.4	51.0	-28.4	4,007.6	116.9
Kerosene	79.6	51.0	-28.6	508.5	14.9
JP-1	79.5	61.0	-18.5	368.2	6.8
Furnace oil	52.9	50.0	-2.9	3,035.6	13.2
5. Total fossil-fuel subsidies	...	...	...	...	282.35

Source: Figures are based on unpublished data provided by the World Bank.

Forms of Energy Subsidies



- Although the government periodically adjusts prices to bring them closer to world market levels, subsidies have thus remained substantial
- BPDB gets domestically produced coal for power generation at a price that is 40% lower than its market price for other uses

Are Energy Subsidies Good?

- Answer to the question is not straightforward:
depends on three important dimensions
 - Economic impacts
 - Parts of society that benefit the most
 - Environmental effects

Are Energy Subsidies Good? (Contd.)

➤ What are the economic impacts?

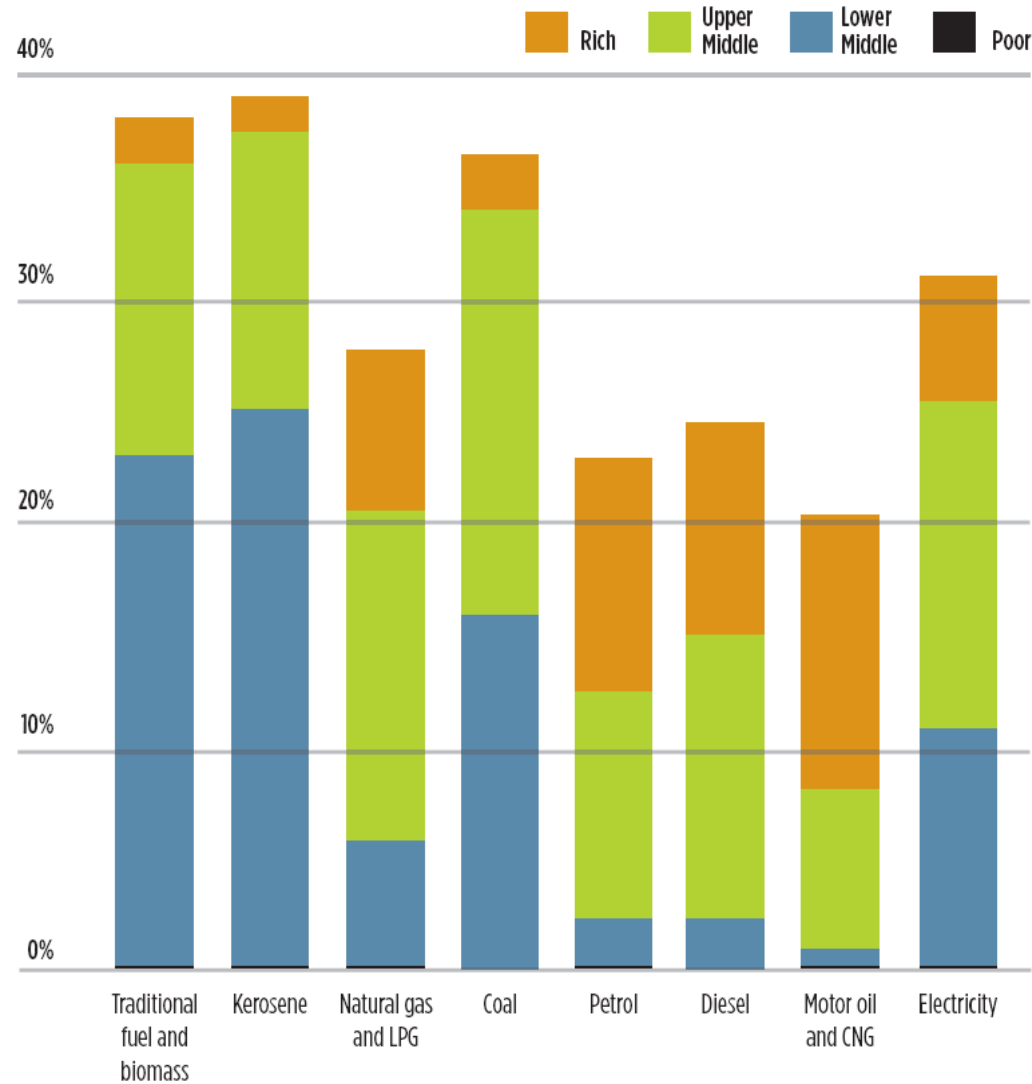
- Large fuel subsidies make the country's fiscal position highly vulnerable to changes in global energy prices. At global fuel price hike, government faces dilemma:
 - raising fuel prices increases inflation and politically difficult to implement; or
 - increasing subsidies distorts the economy and limits development options
- Other negative consequences such as smuggling of subsidized fuels; diversion of resources from other productive activities /borrowing
- Overall economy is exposed to inefficiencies in allocation and distribution of resources across different sectors and activities but the poor are extremely vulnerable to energy price increase

Are Energy Subsidies Good?(Contd.)

➤ **Who benefits from energy subsidies?**

- Energy subsidies help keep energy affordable to low income households
- Energy subsidies raise household real incomes both directly and indirectly
- HIES 2010 data shows that the population weighted share of direct consumption in fossil fuels is extremely low for poor households: 0.1% for kerosene and less than 0.1% for other fuels.
- Thus energy subsidies are largely inequitable; but the poor are extremely vulnerable to energy price increase

Share of Different Income Groups in Fuel Consumption



Source: Bangladesh Petroleum Corporation, Energy and Mineral Resource Division (2010)

Population-Weighted Share of Household Consumption of Different Fuels by Income Groups (Per Cent)

Per capita income group (BDT)	Traditional fuel and biomass	Kerosene	Natural gas and LPG	Coal	Petrol	Diesel	Motor oil and CNG	Electricity
Poor (0–1,499)	0.1	0.1	0.04	0	0.04	0	0.01	0.03
Lower middle (1,500–7,999)	61.4	64.8	21.4	44.4	11.6	11.0	6.1	36.2
Upper middle (8,000–19,999)	33.5	30.7	52.5	48.4	42.8	50.4	34.3	45.7
Rich (20,000 +)	5.0	4.4	26.1	7.2	45.6	38.6	59.6	18.1
Total	100	100	100	100	100	100	100	100

Source: Bangladesh Bureau of Statistics (2010)

Are Energy Subsidies Good? (Contd.)

- **Do energy subsidies promote sustainable energy development?**
- Subsidies tend to encourage overconsumption and inefficient use of energy; alter investment decisions by changes in relative prices; discourage energy diversification, and create disincentives for building energy infrastructure
- Subsidized prices often fail to recover immediate costs, pricing system does not allow for fund accumulation to support expansion, development, and recover depreciation costs.
- Lead to inefficient fuel consumption in the transport sector leading to increased air pollution, disincentive to adopting energy efficient alternatives (e.g. LED lights , solar lanterns)

Reforming Energy Subsidies in Bangladesh

- The sixth five year plan (2011-15) of the government targets to achieve an investment of 37.5% of the GDP which by no means is achievable without planned development of the Power and Energy sector.
- Under a crash program to ease the acute power crisis, rental and quick rental power plants were established which in turn have increased the import bill and the burden of subsidy disrupting the macroeconomic stability.
- To overcome the subsidy financing problem for both power and energy, steps have been taken through rationalizing power tariff and by adjusting petroleum prices.

Reforming Energy Subsidies in Bangladesh (Contd.)

- Fuel prices were adjusted four times in 2011 and 2012

	May 2011	September 2011	December 2011	January 2012
Diesel	46	51	56	61
Petrol	76	80	86	91
Octane	79	84	89	94
Kerosene	46	51	56	61
Furnace oil	42	50	55	60

Source: Ministry of Energy and Mineral Resources, Government of Bangladesh

- Recently Petrobangla has proposed BERC to increase the price of the gas supplied in the CNG refilling stations by 39 % , for the industries by 32%, for power plants by 5% and for fertilizer factories by 9%.
- On March 1st 2012 the bulk price of each unit power had been raised to Tk. 4.02 from Tk. 3.74

Reforming Energy Subsidies in Bangladesh (Contd.)

- Despite increases in price, total volume of fuel subsidy has rose, due to import of additional petroleum products for rental & quick rental power plants.
- The government had to import about 7 million tons of petroleum in FY12, compared with 5.4 million tons in FY11 and 2.6 million tons in FY10.
- This will be reduced in a planned way over the next few years. In FY 13 high cost fuel will produce 21.6% of the total electricity generation which will come down to 6% by 2015-16.

Use(%) of Different types of fuel in power generation

Year	2009	2010	2011	2012
Furnace Oil	3.76	2.81	5.00	11.00
Diesel	1.97	1.75	6.00	6.00
Hydro-electricity	1.56	3.39	4.00	3.00
Coal	3.88	3.77	2.00	2.00
Gas	88.4	88.27	83.00	78.00

Reforming Energy Subsidies in Bangladesh

- Several issues need to be effectively resolved to arrive at a national consensus regarding subsidy policies
 - Are energy subsidies a good use of limited fiscal resources vis-à-vis its development priorities?
 - Would fuel subsidies be better spent if allocated to expanding the rural electricity network, investing in power generation and distribution, and improving service delivery?

Policy Reform in Energy Subsidies: Suggestive Measures

- The policies for reform can be grouped into two categories:
 - i. Providing assistance to poor households
 - ii. Helping the broader community to understand and support reform

i. Providing assistance to poor households

- Two main ways to redirect money from fuel subsidies to those most in need:
 - Cash transfers and Increased social spending
- **Indonesia's experiences:** In 2005 and 2008, the Indonesian government used the Cash Transfer Assistance Program (BLT) providing two payments of IDR300,000 (around US\$30) directly to poor families. BLT accompanied by short-term measures referred to as the Fuel Subsidy Reduction Compensation Program provided targeted support for affected groups by increasing social spending.

Policy Reform in Energy Subsidies(Contd.)

- **Jordan's experiences:** Supported subsidy reform in 2008 by increasing minimum wage and providing salary increase to low-paid government employees. A one-time bonus was given to low-income government employees and pensioners and electricity tariffs were maintained at low levels.
- **Thailand's experiences:** Initiated a six-point, six-month THB 46 billion (US\$1.3 billion) program to help the poor in response to high international oil prices. The plan offered free electricity to those consuming less than 80 kilowatt-hours a month (and half the cost for households consuming less than 150 kilowatt-hours), free rides on the 800 ordinary buses operated by the state-run Bangkok Mass Transit Authority and on third-class trains, free water for the first 50 cubic meters, excise exemption on ethanol-gasoline blends and diesel, and a ceiling on LPG prices.

Policy Reform in Energy Subsidies(Contd.)

Helping the broader community to understand and support reform

a. Communication

- Information campaigns are an important element of any successful subsidy reform strategy. In 2005, the Indonesian government implemented a public relations campaign alongside cash transfers and social spending as a means for building support for reform
- Public understanding and acceptance of changing fuel prices can be encouraged by regularly publishing information, such as price surveys, comparisons of domestic and international prices, and composition of each key petroleum product .

b. Gradual Phase-Out

Avoid price jumps of over 10 % per adjustment when instituting reform; instead, governments should implement small increments on a regular (e.g., monthly) basis, over a clear time frame

Concluding Remarks

- Proper pricing of primary fuel and energy is important to conserve energy and to attract domestic and foreign private investments in the energy sector.
- Bangladesh Energy Regulatory Commission needs to take prudent decisions for adjusting power tariffs gradually considering the expectation of rise in cost of electricity production in near future
- Prices of fuels should follow actual costs of imports in order to keep subsidies within acceptable fiscal limits
- Government should pay special attention to measures of subsidy reform that reduce the negative impacts for the poor, improve energy access, and provide support through targeted social assistance programs.

Thank u all....