# HASHEMITE KINGDOM OF JORDAN

An Analysis of Consumption Subsidies<sup>1</sup>

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#### **CONFIDENTIAL Draft**

<sup>&</sup>lt;sup>1</sup> This note has been prepared in response to a request by H.E. Minister of Planning and International Cooperation in February 2011. The findings presented here have been produced by a joint team from the World Bank and the Government of Jordan. From the World Bank side, the team was led by Paolo Verme (Senior Economist and Task Team Leader) and Haneen Sayed (Lead Specialist and Co-Task Team Leader, World Bank), and included P. Facundo Cuevas (Young Professional). Michael Lokshin (Lead Poverty Specialist, World Bank), Zurab Sajaia (Economist, World Bank) and Wael Mansour provided technical inputs. On the GoJ side, the team included Mukhalad Omari (Ministry of Planning and International Cooperation), Orouba Al Sabbagh (MOPIC), Mona Odjtallah (MOPIC), Sana Al Momani (DOS) and Fatmeh Awamreh (DOS). We are grateful to the guidance and cooperation provided by H.E. Minister Jaafar Hassan, Mr. Saleh Kharabsheh (Secretary General, MOPIC), and Dr. Haidar Fraihat (Director, DOS). Bashar Soboh (MOPIC) provided detailed comments on earlier drafts. Thanks are also due to staff of the Ministries of Finance, Social Development, and Water who kindly cooperated during two World Bank missions that took place between March and June 2011. The authors are grateful for comments received from the internal reviewers Ruslan Yemtsov and Jose Cuesta and from Caroline Van Den Berg, Tara Vishwanath, Rome Chavapricha, Bernard Funck and Guillermo Almada.

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### Summary

This note reviews consumption subsidies in Jordan in 2010, simulates the effects of the removal of the subsidies, and estimates the possible impact on the welfare of the population. We find:

#### Composition and Expenditures:

- Three categories of cash subsidies remained in Jordan by the end of 2010: food (wheat and barley), gas (gas cylinders) and water. Expenditure in 2010 amounted to JD 103 million for food, JD 88.2 million for gas, and JD 220.3 million for water. In total, these subsidies amounted to 2.1 percent of GDP and 7.3 percent of government expenditure.
- Total food and gas subsidies have decreased between 2005 and 2010, from 17.2 percent of government expenditure to 3.4 percent of expenditure. In terms of expenditure per capita, food and gas subsidies together decreased from JD 110 year/capita in 2005 to JD 31 in 2010. Water subsidies increased between 2008 and 2010 from JD 66.3 million to JD 220.3 million.
- Expenditure on food, gas and water represent 2-3 percent of household expenditure for the rich population, 4-6 percent for the middle class, and 7-10 percent for the poor.
- The total amount of subsidies on food, gas and water averages around 3.5 percent of total household expenditure. This is twice as large for the poor (5-7 percent) as compared to the rich (2 percent).
- In 2008, the GOJ granted exemptions from the General Sales Tax (GST=16 percent) to 13 consumption products. These can be considered as consumption tax subsidies. The total cost for the government of the GST exemption calculated for 10 of the 13 consumption items is of JD 97.7 million for 2010, an amount comparable to the total of food subsidies in 2010.
- On average, households receive JD 16.5 of tax exemptions per capita per month but the poorest 20 percent of the population receive about JD 8.6 as compared to JD 28.5 for the richest 20 percent.

### Welfare Impacts:

- Analysis shows that the rich receive a larger share of the consumption subsidies as compared to the poor especially for gas and water subsidies. Overall, the poor receive only 11.1 percent of total subsidies.
- The complete elimination of consumption subsidies would decrease household welfare by 2-3 percent for the rich and by 4-6 percent for the poor. This is an estimate that does not take into full account behavioral changes in expenditure patterns due to the elimination of subsidies.
- The complete elimination of consumption subsidies would increase the price of subsidized commodities by: 69 percent for food, 54 percent for gas and 257 percent for water (these figures require further checks with the MOWI).
- The complete elimination of consumption cash subsidies (food, gas and water) would increase poverty by about 2 percentage points.

- The incidence of tax subsidies on household welfare is on average 1.1 percent of total household expenditure. This is higher for the poorest 20 percent of the population (1.4 percent) as compared to the richest 20 percent (0.9 percent).
- The removal of the 2010 consumption subsidies for food, gas cylinders and water would imply very significant price increases in subsidized products and also sizable consequences for the poor in terms of reduced expenditure and increased poverty. However, the effect would be relatively small for the middle-class and for the rich despite the fact that these two groups receive the largest share of consumption subsidies.
- The removal of tax subsidies would increase poverty by about 1 percent while it would not have much impact on inequality.

### Policy Implications:

- The existing consumption and tax subsidies combined amount to more than JD 500 million. This budget would be more than sufficient to eliminate poverty in Jordan if transfers would target exclusively the poor. For example, a reduction in the poverty headcount rate from 13.3 percent to 11.7 percent could be achieved with a budget transfer of only JD 29 million, by targeting the poorest 320,000 people and making a uniform transfer of JD 90 per capita. A more ambitious reduction in poverty from 13.3 percent to 9.1 percent would require a budget of JD 95 million and a homogenous transfer of JD 95 per person. Such an amount could be financed entirely, for example, by the elimination of gas subsidies alone.
- To achieve the above results, it is assumed that the targeting mechanism utilized is that which relies on the proxy-means testing (PMT) methodology, which the GoJ has committed to adopting through the renewal of the National Aid Fund (NAF), but has yet to implement.
- The GoJ may also be interested in protecting the middle-class or the lower middle-class from the adverse consequences of cuts in consumption subsidies. This is understandable given the current social instability in the region but the fundamental problem of targeting is the same as for the poor. First and foremost, it is important for the GoJ to establish a good targeting mechanism that can be used for targeting any chosen layer of the population.
- Alternative types of subsidies reforms may include self-targeting, categorical targeting and product targeting. These options are difficult to implement and the behavioral implications of such reforms are problematic to predict.
- Finally, if the GoJ favors a simple and less risky reform, one solution could be to re-introduce the sales tax on the currently exempted consumption subsidies products.

### I. Introduction

1. As in other countries in the region, the Government of Jordan (GOJ) has traditionally subsidized consumption through direct subsidies to producers and consumers for selected products such as wheat, barley, gas, gasoline, water and electricity. These subsidies experienced sharp increases during the early part of the last decade due to the growth of global food and commodities prices and the desire of the Government to protect the population from such increases. In 2005, the GOJ was spending over JD 600 millions on food and oil subsidies alone, equal to 17.2 percent of total government expenditure (GOJ, 2010). More recently, the GOJ has made an effort to reduce subsidies and in 2008, the Government introduced substantial reforms by eliminating most of the oil subsidies and reducing the food subsidies, while providing tax breaks and exemptions to a large number of intermediate and consumption products. The costs and benefits of the new system are still unclear and this note aims at shedding light on the current system, as well as simulating alternatives for reforms.

2. In comparison to other countries in the region, Jordan spends less on subsidies. In 2010, subsidies amounted to 2.1 percent of GDP and 7.3 percent of government expenditure. By comparison, Egypt expenditure reached 9 percent of GDP, two thirds of which were absorbed by fuel. Morocco spends 5 percent of GDP on both food and fuel subsidies, while Iraq allocated 8 percent of GDP to its subsidized food distribution system. And Yemen spends 8 percent on petroleum subsidies. However, though subsidies in Jordan are at a relatively lower level than its regional neighbors, the Government remains concerned with their fiscal sustainability in light of Jordan's overall fragile fiscal balance. In addition, the GoJ is seeking better ways to use its budget for the poor and middle classes. The relatively smaller size of the subsidy regime could make reforms more palatable.

### A. Definitions

3. "Subsidies" is a rather general term than can apply to a wide range of government transfers and foregone revenues. Scholars often distinguish between production and consumption subsidies, between direct and indirect subsidies and between implicit and explicit subsidies. Production subsidies target producers while consumers' subsidies target consumers. Direct transfers are transfers that target directly beneficiaries such as subsidies for bread while indirect transfers target the final beneficiaries indirectly such as subsidies on wheat aimed at consumers. Indirect subsidies may or may not imply that the government sets all forward prices in the production chain from the subsidized intermediate product to the final consumption product. Explicit subsidies are subsidies that are transparent and accounted for in the budget such as cash transfers. Implicit subsidies are subsidies that are typically less transparent, even if legislated, and that are not necessarily accounted for in the budget such as tax breaks or budget transfers to extra-budgetary public institutions.

4. For simplicity, this note will refer to cash subsidies to indicate those subsidies that result in a budget expenditure and to tax subsidies to indicate those subsidies that result in foregone revenues. We also distinguish between implicit and explicit subsidies and direct and indirect subsidies as defined above.

### B. Consumption Cash Subsidies vs. Consumption Tax Subsidies

5. In 2008, the GOJ has introduced a number of tax exemptions while reducing oil subsidies. Shifting from a system of explicit consumption or production subsidies to a system of implicit subsidies such as tax breaks and exemption has several implications. First, while government's transfers result in increased public expenditure and can be easily monitored in the budget data, tax breaks or exemptions result in foregone revenues for the government and, as such, they are not accounted for in the budget. Second, explicit production or consumption subsidies distort both the market for intermediate goods and the market for final consumption products. They distort the market for intermediate goods because they

limit the number of producers and they often imply regulated prices in all downward markets. They distort the market for final consumption products because they create a wedge between market and set prices for final consumption products. Tax breaks and deductions on final consumption have minor effects on production and distort mostly the market for final consumption. Moreover, the behavioral effects of cash subsidies are different from the behavioral effects of tax subsidies and the estimations of these effects may require different tools and may result in very different cost and benefits for the Government and for the consumers. Therefore, the choice of shifting from a system of cash subsidies to a system of tax subsidies is an important choice for a government with far reaching implications on the government's budget and on household welfare. In this note, we will consider both cash subsidies and tax subsidies.

### II. Consumption Cash Subsidies

### A. Composition

6. In 2010, Jordan had three main categories of consumption cash subsidies: food, oil (gas), and water. Food subsidies include subsidies on imported wheat and subsidies on barley used as animal feed. Subsidies on wheat consist of wheat imported by the Ministry of Industry and Trade who sells subsidized wheat to mills. The subsidy is set with a special formula that takes into account the type of flour and bread produced and the government sets the prices for flour and bread so as to transfer the subsidy on to consumers. Subsidies for animal feed (imported barley) are provided to farmers registered with the Ministry of Agriculture. Prices of meat products are not regulated but a reduction in consumption subsidies on barley should be expected to result in an increase in the market price for domestically produced meat.

7. In 2008, the GOJ has removed most of the oil subsidies and this note will consider only subsidies on gas cylinders, which in Jordan are used mostly for cooking purposes. However, it should be pointed out that the situation with oil prices in late 2010 and 2011 has been very unstable and the government has implicitly subsidized oil products during this latest period. These subsidies are not considered in this note because we focus on 2010 and because we could not find detailed information on changes occurred in late 2010 and in 2011.

8. Water is subsidized through a system of discounts on water bills related to the amount of water consumed. The water system in Jordan is managed by the Ministry of Water and Irrigation (MWI), the Water Agency of Jordan (WAJ) and the Jordan Valley Authority (JVA). The MWI manages water projects and supervise the work of the agencies, the WAJ manages the municipal water systems by overseeing and coordinating the work of the local distribution companies (such as the Amman and the Aqaba companies) and the JVA manages the water irrigation system. The WAJ generates its income from customers' bills, government transfers and transfers from MOPIC and MWI. The JVA generates income from customers' bills and the government budget.

9. We estimated the total subsidies for water as the difference between income and expenditure of the WAJ. We considered instead the budget for the MWI and for the JVA as general public expenditure. Note that water tariffs are set on the basis of the cubic meters consumed by households and commercial activities. A correct estimation of the incidence of water subsidies on households would require knowledge of the quantities of water consumed by each household whereas we can only trace water expenditure in the survey data. Moreover, the WAJ provides water to household and commercial activities while we spread the subsidies on households only, therefore assuming that the final beneficiaries of water subsidies are always the final consumers.

10. It should be remarked that the estimated difference between income and expenditure of the WAJ cannot be considered as the total amount of subsidies to households. That is because investments in water infrastructure do not necessarily pass through the WAJ budget and can be financed through other budget lines, specific projects and/or by international donors. This makes the fixed costs and the total subsidies of the water system difficult to estimate in its entirety. A certain amount of cross subsidies is also present in the system. Residential water and sewerage tariffs are usually much lower than that for non-residential water users so that households' water bills tend to be cross-subsidised by water bills of commercial activities. This is particularly true in areas where there is a low compliance rate with household payments. Moreover, water is a rather inelastic good and cuts in subsidies may not be fully reflected in cuts in expenditure. In Jordan, people often store water in tanks and sometime bottled water is used as a substitute for current water. Therefore, the simulations of the water subsidies that follow should be considered as approximate and lower bound estimates.

11. In the past, Jordan has also subsidized electricity and today prices for electricity are still set by the Government. The current government policy in relation to electricity is not to finance the sector and between 2007 and 2011 we could not find any net transfer made from the budget to electricity companies. This is the result of the privatization process that saw the establishment of the National Electric Power Corporation (NEPCO), the Electricity Regulatory Commission (ERC), private generators of electricity and private regional distributors of electricity. In this new system, NEPCO manages the transactions between the international fuel providers and the private generators and distributors of electricity tariffs for government decision. The authority to set electricity tariff lies with the government.

12. However, there are two important caveats in relation to the electricity system. First, electricity prices vary across quantities consumed and across types of consumers and this implies a certain amount of cross-subsidies within the electricity sector (see Annex 3). Second and more importantly, when NEPCO runs into a deficit, such as in 2010 due to the disruptions in gas supply from Egypt, the deficit has been financed with government guaranteed loans from commercial banks. As these loans are ultimately the government's responsibility they could potentially be considered as a form of electricity subsidies. Given the repeated disruptions in the gas supply from Egypt and the fact that these disruptions result in substitution with more expensive oil products necessary to run the electricity generators, subsidies are bound to increase in the sector for the years 2010 and 2011. Moreover, in addition to loans guarantee, there is approximately JD 12 million per year of rural electrification taxes that are occasionally given to the state-owned electricity companies to help reduce their operating costs (called the Rural Fils program). Effectively, this seems to function the same way as general sales tax waiver for other products. In this note, we opted to leave aside these forms of subsidies but they can be easily modeled as we did for water if the amounts are clarified.

13. The typology of existing cash subsidies in Jordan is summarized in the table below. As can be seen, food subsidies can be classified as indirect as they target intermediate products while energy and utilities subsidies are typically direct as they target consumers directly. It is also possible to distinguish explicit and implicit subsidies depending on whether they explicitly appear in the government budget or not.

	Direct (to final consumers)	Indirect (to final consumers)
Explicit (in the budget)	Gas cylinders	Wheat for flour production
		Imported barley for domestic animal

#### Cash Subsidies in Jordan (2010)

		feed
Implicit (in the budget)	Water	

### **B.** Budget expenditure

14. By 2010, the GOJ had already eliminated most of the oil-related cash subsidies while it did successfully reduce food subsidies by considerable amounts. Table 1 reports expenditure on cash subsidies as described in the most recent general government finance bulletin (April 2011). Total food and oil subsidies have decreased between 2005 and 2010, from 17.2 percent of Government expenditure to 3.3 percent. However, subsidies show typically deep fluctuations and, overall, we observe a reallocation of subsidies from oil subsidies to food subsidies. Food subsidies increased very sharply between 2005 and 2008 and declined after the 2008 reform. In 2010, only subsidies on wheat and barley remained under the "food subsidies" item. Oil subsidies instead continuously declined between 2005 and 2010 with a sharp drop after the 2008 reform. By 2010 only subsidies for gas cylinders remained under the "oil subsidies" item.2

15. These trends have been clearly reversed if we look at the 2011 budget figures. Food subsidies in 2011 are expected to rise to JD 218 million. (3.4 percent of government expenditure) while subsidies on gas cylinders are expected to rise to almost JD 122 million (1.9 percent of government expenditure). The most recent revision of the 2011 budget (not in table) also bundles together the different types of subsidies suggesting that the government expects high oil prices as well as fluctuations across all types of subsidies.

	2005	2007	2007	2000	2000	2010	2011
	2005	2006	2007	2008	2009	2010	(ESL)
JD Millions							
Goods Subsidies	600.1	292.1	506.4	418.9	186	191.2	340
Food subsidies	69.3	78.1	200.4	221	143.1	103	218.4
Oil subsidies (gas)	530.8	214	306	197.9	42.9	88.2	121.6
Total subsidies	649	375.1	530.7	522.8	259.9	294.3	517.9
Total expenditure (cash basis)	3478.9	3860.4	4540	5431.9	6030.5	5708.2	6369.0
% of total expenditure							
Goods Subsidies	17.2	7.6	11.2	7.7	3.1	3.3	5.3
Food subsidies	2.0	2.0	4.4	4.1	2.4	1.8	3.4
Oil subsidies (gas)	15.3	5.5	6.7	3.6	0.7	1.5	1.9
Total subsidies	18.7	9.7	11.7	9.6	4.3	5.2	8.1
Total expenditure (cash basis)	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Population (000)	5473	5600	5723	5850	5980	6113	6247.486
Expenditure per capita (JD)							
Goods Subsidies	110	52	88	72	31	31	54
Food subsidies	13	14	35	38	24	17	35

Table	1 -	Subsidies a	s listed in	the	general	government	finance	bulletin
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<sup>&</sup>lt;sup>2</sup> This information was provided consistently by the MOF and MOPIC.

Oil subsidies (gas)	97	38	53	34	7	14	19
Total subsidies	119	67	93	89	43	48	83
Total expenditure (cash basis)	636	689	793	929	1008	934	1019

Source: General Government Finance Bulletin (April, 2011)

16. Water subsidies do not appear explicitly in the government bulletin but they can be estimated as difference between income and expenditure of the WAJ given that the deficit of this agency is covered with direct government's transfers. These figures can be found in the budget law for government units and show that the WAJ deficit has increased dramatically between 2008 and 2010, from JD 60.9 million to 220.3 million (Table 2). The estimated 2011 figures are lower than the 2010 figures but these projections are still highly unreliable as shown by the changes occurred to be budget during the year 2010.

#### Table 2 – Water Authority of Jordan Balance Sheet (JD millions)

	Actual 2008	Actual 2009	Re-	Estimated
			estimated 2010	2011
Revenues	151.17	165.81	116.5	138.1
Expenditure	212.07	255.02	336.8	304.3
Deficit	-60.9	-89.2	-220.3	-166.3

Source: Government Units Budget Law for the year 2011

17. Overall, between 2008 and 2010, the level of all food, oil and water subsidies combined decreased from 3 percent to 2.1 percent of GDP and from 8.8 percent to 7.3 percent of government expenditure. This is due to a combination of sharp reductions in food and oil subsidies between 2008 and 2010 and a sharp increase of water subsidies in 2010 (Table 3).

	2008	2009	2010
millions JD			
Food subsidies (Wheat and Barley)	221	143.1	103
Oil subsidies (gas cylinders)	197.9	42.9	88.2
Water (Budget deficit Water Authority of Jordan)	60.9	89.2	220.3
Total subsidies	479.8	275.2	411.5
% GDP			
Food subsidies (Wheat and Barley)	1.4	0.8	0.5
Oil subsidies (gas cylinders)	1.2	0.2	0.5
Water (Budget deficit Water Authority of Jordan)	0.4	0.5	1.1
Total subsidies	3.0	1.5	2.1
% Government expenditure			
Food subsidies (Wheat and Barley)	4.1	2.4	1.8
Oil subsidies (gas cylinders)	3.6	0.7	1.6
Water (Budget deficit Water Authority of Jordan)	1.1	1.5	3.9
Total subsidies	8.8	4.6	7.3

### Table 3 – Consumption Subsidies

### C. The incidence of subsidized products and the distribution of subsidies

18. How important are subsidized products for households? In this section, we check on the incidence of subsidized products on household total expenditure. In figure 1, we report the share of household

expenditure on subsidized products by percentile of total household expenditure (subsidized products incidence curves). We divide the population into four welfare categories as defined by a recent report on the middle-class in Jordan (ESC, 2008): "Below poverty" (below the official poverty line), "Below middle-class" (below two times the poverty line - this could be considered as the class of "vulnerable" people), "Middle-class" (between two times and four times the poverty line) and "Affluent class" (above four times the poverty line). Expenditure on subsidized food products is around 3-4 percent for the poor, 2-2.8 percent for the below middle-class, 1-2 percent for the middle-class and around 1 percent for the rich. These same shares approximately apply to total expenditure on gas cylinders. Total household water consumption represents instead about 1.5 percent of household expenditure for the poor, 1-1.6 percent for the rich. If we cumulate the different subsidized products, we find that these products amount to about 8 percent of household expenditure for the poor, 5-7 percent for the below middle-class, between 3 percent and 5 percent for the middle-class and between 2 percent and 3 percent for the rich. Therefore, the incidence of subsidized products on total household expenditure decreases as welfare increases and this is true for all the products considered.



Figure 1 – The Incidence of Expenditure on Subsidized Products on Total Household Expenditure

Source: HIES 2008. Note: graphs represent percentage of total household expenditure allocated to subsidized goods across quantiles of the household expenditure distribution. Quantiles are sorted in ascending order of expenditure levels; the n-th quantile represents households that are richer than n-percent of households, and poorer than 100-n percent of households. Vertical lines represent multiples of the poverty line to classify the population by socio-economic group following ESC (2008) thresholds. Households to the left of the poverty line are poor; households between the poverty line and two times the poverty line are below middle class; households between two and four times the poverty line are middle class; and households above four times the poverty line are classified as affluent.

19. How progressive and pro-poor are subsidies? Here we look at the distribution of subsidies across households divided into expenditure groups. As shown in Table 4, the rich receive a larger share of the subsidies as compared to the poor. This difference is relatively small for food subsidies where the top decile receives 10.6 percent of total subsidies while the bottom decile receives 9.4 percent. But it is very large for gas and water subsidies where the rich receive between two and three times the amount of subsidies received by the poor. Overall, the poor receive only 11.1 percent of total subsidies.

			Deciles of per capita consumption										Cla	SS	
	Total	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	Poor	Mid- low	Mid- high	High
Food 2010	100.0	9.4	9.4	9.5	9.8	9.9	10.1	10.2	10.6	10.6	10.6	14.0	45.8	29.9	10.3
Gas 2010	100.0	6.0	7.2	7.9	8.5	9.1	9.5	10.5	11.6	13.3	16.4	9.6	40.6	33.9	16.0
Water 2010	100.0	6.2	6.7	7.3	7.9	8.2	8.9	9.6	11.4	13.1	20.6	9.3	37.6	32.9	20.2
All 2010	100.0	7.3	7.9	8.4	8.9	9.1	9.6	10.2	11.2	12.2	15.1	11.1	41.9	32.2	14.8

 Table 4: Distribution of Subsidies 2010

Source: HIES 2008

20. The pro-rich nature of subsidies is also clearly visible if we observe average transfers per capita by expenditure group (Table 5). The bottom decile of the population receives JD 32.1 year/cap. as compared to the top decile that receives JD 66.7 year/cap. Therefore, the distribution of subsidies is clearly regressive and pro-rich.

Table 5: Average Transfer	Value, Per	Capita
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			Deciles of per capita consumption											SS	
	Total	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	Poor	Mid- low	Mid- hi	High
Food 2010	15.8	14.8	14.9	15.1	15.5	15.7	15.9	16.2	16.9	16.7	16.8	14.9	15.5	16.7	16.8
Gas 2010	13.7	8.2	9.9	10.8	11.7	12.5	13.0	14.4	15.8	18.2	22.5	8.8	11.9	16.3	22.5
Water 2010	33.7	21.0	22.7	24.7	26.7	27.7	30.1	32.5	38.3	44.2	69.4	20.9	27.1	39.0	70.1
All 2010	44.1	32.1	34.9	37.0	39.2	40.4	42.2	45.0	49.3	53.9	66.7	32.8	39.4	49.9	66.9

Source: HIES 2008

### D. Simulations of Cuts in Consumption Cash Subsidies

21. In this section, we simulate the incidence of subsidies cuts on household welfare. For this purpose, we use the 2008 Household Income and Expenditure Survey (HIES), which is the latest household expenditure survey available. As a measure of household welfare we use total household expenditure per capita.

22. We simulate cuts in subsidies as if these cuts were to be carried out at the end of 2010 using the 2010 information on subsidies. Given that the we only have a 2008 survey, we made adjustments to the 2008 data by increasing household expenditure per capita by the same rate as the change in GDP per capita between 2008 and 2010 (just below 1 percent). We then expanded the household and individual populations from 2008 to 2010 using the DOS official population information. For our poverty estimations we also upgraded the poverty line inflating this line using the Consumers price Index (CPI) changes between 2008 and 2010.

23. For the simulations, we assumed that changes in subsidies would be fully transmitted on to households - whether applied to intermediate or final products - and we also assumed that subsidies for each household would be proportional to household consumption on subsidized products. Therefore we assumed that a 1 percent increase in the price of wheat would result in a 1 percent increase in the price of bread and that a 1 percent increase in the price of bread would result in a 1 percent increase in the household cost for bread consumption. Note that this is not necessarily an increase in expenditure given that an increase in cost can induce changes in the consumption bundle and quantities that we could not simulate with the data and tools available. In other words, our analysis does not account for potential changes in consumption patterns that may arise from behavioral responses in the face of an increase in the price of a subsidized good. In that sense, our estimates should be considered an upper bound of the effect of subsidy removal on poverty. The extent to which this behavioral response takes place depends ultimately on cross price elasticities. These can also vary along the income distribution and by type of product. Items that cover basic needs like bread and water would be less easily substitutable than other less essential items and these types of goods are evidently less elastic to changes in prices than other less essential goods.

24. What would cuts in subsidies imply? We should expect cuts in subsidies to increase prices of subsidized products, to reduce household expenditure and, as a consequence, to increase poverty. In the next sections, we try to estimate these three different effects.

25. What would the price increase be if the subsidies were totally removed? Table 6 reports the share of total subsidies as found in macro data and total expenditure on subsidized products as found in the household survey. This share is a rough estimate of the price increase that would accrue if the subsidies were cut in full. As shown in the table, the price of subsidized food products would increase by about 68.6 percent, the price of gas cylinders by 54 percent and the price of water bills by 257.2 percent. We also simulated the potential increase in price that would accrue from the removal of the increase in food subsidies introduced in 2011. This would amount to an increase of about 145.5 percent. These are large prices increases, especially for water, and something that would certainly not go unnoticed by households.

JD Millions	Total HH Exp. on Subsidized Items	Total Subsidy (JD m)	% Subsidy=Price Increase
Food 2010	150.1	103.0	68.6
Gas 2010	163.0	88.2	54.0
Water 2010	85.6	220.3	257.2
All 2010	398.7	411.5	n/a

Table 6 – Price Increases dy	ue to Cuts in Subsidies
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Source: HIES 2008

26. What would the effect on household expenditure be if subsidies were removed? One thing is the increase in prices of subsidized products and a different thing is the incidence of cuts in subsidies on household welfare. That is because subsidies amount only to a share of expenditure on subsidized products and expenditure on subsidized products amounts to only a share of total household expenditure. In figure 2, we plot the subsidies incidence curves. These curves show the share of subsidies on total household expenditure by expenditure percentile. As it can be seen, food subsidies account for about 2 percent of total expenditure for the poor, between 1.5 percent and 1.8 percent for the below middle-class, between 0.8 percent and 1.5 percent for the middle-class and about 0.5 percent for the rich. Similar results can be observed for gas cylinders while the incidence of water subsidies is around 4 percent for the poor, between 2.8 and 3.2 for the below middle-class, between 2 percent and 2.8 percent for the middle-class and less than 2 percent for the poor. Overall, a cut in food, gas and water subsidies would decrease the

household expenditure of the poor by about 6 percent, by in between 2 percent and 4 percent for the middle-class and by around 2 percent for the rich. Therefore, cutting subsidies would have a larger effect on the poor than on the middle-class or the rich. Despite the fact that the rich receive a larger share of total subsidies, cuts in these subsidies would affect the poor more than the rich.



Figure 2 – Subsidies Incidence Curves

Source: HIES 2008. Note: graphs represent the amount of subsidy received as a percentage of total household expenditure across quantiles of the household expenditure distribution. Quantiles are sorted in ascending order of expenditure levels; the n-th quantile represents households that are richer than n-percent of households, and poorer than 100-n percent of households. Vertical lines represent multiples of the poverty line to classify the population by socio-economic group following ESC (2008) thresholds. Households to the left of the poverty line are poor; households between the poverty and two times the poverty line are lower middle class; households between two and four times the poverty line are upper middle class; and households above four times the poverty line are affluent.

27. What would the effect on poverty be if subsidies were to be removed? Table 7 reports the simulations of the incidence on poverty of potential cuts in subsidies. Total cuts in food subsidies (JD 103 million) would amount to an increase in poverty (headcount) of about 0.6 percentage points. A cut in gas cylinders subsidies (JD 88.2 million) would increase poverty by about 0.5 percentage points while cuts in water subsidies (JD 220.3 million) would amount to a 1.4 percentage increase. Overall, removing all subsidies that existed in 2010 (JD 411.5 million) would increase poverty by almost 2 percentage points.

	Changes in HH Annual Exp./cap. (JD)	Poverty rate
Food 2010	1508	.6
Gas 2010	1510	.5
Water 2010	1490	1.4
All 2010	1480	1.9

Table 7 – Poverty Inciden	ce of Cuts in Subsidies
---------------------------	-------------------------

Source: HIES 2008

28. The 2010 simulated cuts in subsidies can be visually appreciated by plotting the Cumulative Distribution Functions (CDFs) of the expenditure situation pre and post-subsidies. Figure 3 reports these

CDFs for the pre-cut household expenditure and for the post-cut expenditure considering food, gas and water subsidies together. The CDFs change between the two situations is small. As observed in Figure 2, all subsidies together in 2010 represented about 3-4 percent of total household expenditure. In Figure 3, this share is represented by the distance between the pre and post cuts in subsidies curves.



Figure 3 - Cumulative Distributions Functions of Household Expenditure Pre and Post cuts in Subsidies

Source: HIES 2008. Note: curves represent cumulative percentage of households at each level of expenditure, with households sorted in ascending order of expenditure.

29. In conclusion, removing the 2010 consumption subsidies for food, gas cylinders and water would imply very significant price increases in subsidized products and also sizable consequences for the poor in terms of reduced expenditure and increased poverty. However, the effect would be relatively small for the middle-class and for the rich despite the fact that these two groups receive the largest share of consumption subsidies.

#### III. Tax Subsidies

#### A. Composition

30. In 2008, the GOJ granted exemptions from the General Sales Tax (GST=16 percent) to 13 consumption products and other tax exemptions to an additional 115 consumption and intermediate products (see Annex 1 for a complete list). In addition to exemptions on the GST for selected consumption items, preferential tax treatment in 2008 included a reduction in the sales tax on internet services from 16 percent to 8 percent, a zero tax rate on 47 items related to energy saving products, exemptions on tax duties for an additional 13 energy saving products, GST exemptions on 35 agricultural related products, one reduction and two exemptions on the GST of steel products. The list of tax exemptions was reduced gradually in 2009 and 2010 as a fiscal consolidation plan was implemented in Jordan. In the second half of 2011, the Government re-introduced GST exemptions on some of these products and services, and extended the list to include 260 items. These goods and services were selected

on the basis of their share in the consumption basket of poor and middle class Jordanians, or were deemed as vital inputs to industries and the manufacturing sector (see Annex 2 for a partial list). This list will not be considered in the analysis however as the reference data is the 2008 household income and expenditure survey. Moreover, not all items present in the list could be traced in the household expenditure data. Therefore, all simulations in this section will be limited to 10 of the 13 consumption GST exempted items.

### **B. Budget Costs**

31. As we are focusing on only ten final consumption products which have been exempted by the GST (16 percent), the estimation of the budget cost for the Government is simply calculated as the value of the GST on the total of the subsidized products effectively consumed by households. The total cost for the government of the GST exemption calculated in this manner is of JD 97.7 million for 2010. However, with this simple calculation we are ignoring the structure of the GST and who effectively bears the cost of the tax. We are also ignoring issues of tax compliancy which may be relevant in a country like Jordan. These are all issues ignored by this note and that would require a more in-depth analysis.

32. It should also be kept in mind that we were able to simulate only 10 of the 13 food consumption items that were subject to sales tax exemptions in 2008 and that we did not simulate any of the tax breaks on the remaining 115 products as listed in Annex 1. A complete account of all tax subsidies should be done and may result in a very significant gross loss of revenues for the government, certainly much greater than the total cost of cash subsidies as discussed under the cash subsidies section. The gross cost for the government should then be discounted accounting for secondary and behavioral effects including the effect of increased incentives to production and the effect of increased consumers demand due to tax deductions. These last effects partly offset the cost for the government and are not estimated in this exercise.

# C. Simulations of cuts in tax subsidies<sup>3</sup>

33. Simulations of cuts in tax subsidies imply the reintroduction of the GST and amount to simulating an increase in consumption prices of an amount equivalent to the sales tax. The GST applied to most basic products in Jordan is 16 percent and the simulations estimate the cost of subsidies for households by increasing expenditure on subsidized products by 16 percent. Evidently, there is no need to estimate the average increase in prices as we did with cash subsidies as we are assuming that the price increase would be 16 percent for all tax subsidized products.

34. The combined value of tax subsidies for the 10 products selected amounts to JD 16.5 per capita and this varies between JD 8.6 and JD 28.5 between the first and the fifth expenditure quintile. Products of largest consumption where the subsidy is higher are rice, milk, cheese, coffee and sugar and this order is similar across expenditure quintiles (Table 8). Non poor households receive about 2.5 times the amount of subsidies received by poor households. Therefore, as observed for other subsidies, richer households benefit from a larger share of subsidies as compared to poorer households.

<sup>&</sup>lt;sup>3</sup> Simulations on tax subsidies were carried out in ADePT using the social protection module.

		Qui	Quintiles of per capita consumption					y Status	Are resid	a of ence
	Total	Q1	Q2	Q3	Q4	Q5	Р	NP	Urban	Rural
All tax	16.5	8.6	12.1	14.9	18.6	28.5	7.8	17.9	17.0	14.6
subsidised items										
corn	0.5	0.3	0.9	0.4	0.4	0.6	0.3	0.6	0.6	0.3
palmoil	2.3	1.5	2.1	2.7	2.8	3.9	1.4	2.6	2.6	1.7
sugar	2.5	1.8	2.0	2.5	2.8	3.4	1.7	2.6	2.4	2.9
noodles	0.5	0.3	0.4	0.5	0.6	0.8	0.3	0.6	0.6	0.4
cheeses	2.7	0.9	1.4	2.0	2.8	6.1	0.7	3.0	3.0	1.4
lentils	0.9	0.6	0.7	0.9	1.0	1.4	0.6	1.0	0.9	0.9
milk	3.2	1.7	2.4	2.9	3.7	5.0	1.6	3.4	3.3	2.8
rice	5.4	3.1	4.2	5.1	6.1	8.4	2.8	5.8	5.4	5.4
tea	1.4	1.0	1.2	1.3	1.6	2.0	1.0	1.5	1.4	1.5
coffee	2.5	1.1	1.6	2.1	2.7	4.6	1.0	2.7	2.5	2.2

Table 8 – Per Capita Consumption on Subsidized Products

Source: HIES 2008

35. The incidence of tax subsidies on household expenditure results in an overall increase in the poverty rate from 13.4 percent to 14.3 percent and in smaller increases in the poverty gap and severity of poverty measures. Inequality measures are virtually unaffected by cuts in tax subsidies (Table 9).

		Poverty	Inequality	
	FGT0	FGT1	FGT2	Gini
Indicator with tax subsidies	0.134	0.026	0.008	0.337
Indicator without tax subsidies				
All tax subsidized items	0.143	0.028	0.009	0.338
Corn	0.134	0.026	0.008	0.337
Palmoil	0.134	0.026	0.008	0.337
Sugar	0.135	0.027	0.008	0.337
Noodles	0.134	0.026	0.008	0.337
Cheeses	0.135	0.026	0.008	0.337
Lentils	0.135	0.026	0.008	0.337
Milk	0.135	0.026	0.008	0.337
Rice	0.137	0.027	0.008	0.337
Теа	0.135	0.026	0.008	0.337
Coffee	0.135	0.026	0.008	0.337

Table 9 - Incidence of Tax Subsidies on Poverty and Inequality

Source: HIES 2008. Note: FGT0 represents poverty headcount (percent of poor population, divided by 100); FGT1 represents poverty depth (the amount of income necessary to bring everyone in poverty right up to the poverty line, as a proportion of the poverty line, averaged over total population); FGT2 represents poverty severity (considering not only poverty but also inequality among the poor); the Gini coefficient measures inequality in the expenditure distribution (a value of 0 represents perfect equality and a value of 1 total inequality).

36. The potential cost for the government in filling the poverty gap goes up by about JD 6.4 million if the 10 tax subsidies considered are removed (Table 10). The item that would contribute the most to this increase is rice, which contributes for over JD 2 million alone. The total cost of tax subsidies for the Government is JD 97.7 million and it would cost only about 6 percent of this amount to re-establish the pre-cut poverty gap figure. In other words, if tax exemptions were lifted, the government would benefit from a JD 97.7 million increase in revenues (assuming no behavioral changes) and it would need only 6 percent of this amount to compensate the poor for this loss (assuming perfect targeting).

	Simulated poverty gap without transfer	Actual poverty gap	Difference (dPG)	Total amount spent in the program (X)	Cost- Benefit (dPG0/X)
All tax subsidized items	111,803,781	105,383,920	6,419,861	97,669,086	0.066
Corn	105,394,300	105,383,920	10,380	341,860	0.030
Palmoil	105,482,887	105,383,920	98,967	764,607	0.129
Sugar	106,598,827	105,383,920	1,214,907	13,182,607	0.092
Noodles	105,535,309	105,383,920	151,389	2,105,538	0.072
Cheese	105,830,304	105,383,920	446,384	13,993,062	0.032
Lentils	105,633,074	105,383,920	249,154	2,772,224	0.090
Milk	106,182,279	105,383,920	798,360	14,950,964	0.053
Rice	107,421,479	105,383,920	2,037,559	29,920,111	0.068
Теа	106,012,081	105,383,920	628,161	6,775,930	0.093
Coffee	105,982,918	105,383,920	598,998	12,862,183	0.047

Table 10 – Expenditure on Tax Subsidies and the Poverty Gap

Source: HIES 2008

### **IV.** Simulations of Improved Targeting of Cash Transfers (NAF)

37. In this section, we shift attention to the National Aid Fund (NAF) to see how the budget for subsidies could be used in a more targeted fashion. In previous sections, we have shown that consumption cash and tax subsidies are regressive and pro-rich. Looking into alternative uses of the subsidies budget can help to make government expenditure more pro-poor.

38. The NAF, an autonomous institution under the auspices of the Ministry of Social Development (MOSD), targets the poor in various categories (women with young children, orphans, the elderly, and persons with disabilities, families headed by divorced or abandoned women, and households where the main breadwinner is in prison). The NAF provides cash support (long-term supplementary income aid, emergency aid, assistance to disabled people, assistance to disabled people for physical rehabilitation, financing of vocational training for the beneficiaries) with minimum benefits equal to JD 40/person/month (71 percent of the adult equivalent poverty line) up to a maximum of JD 180/family/month for a family of five or more persons. The NAF is implemented by staff of the MOSD through 76 MOSD local offices. Beneficiary families are automatically eligible for free government health insurance. Cash transfers through the NAF increased by almost 50 percent between 2005 and 2009, though there were fluctuations in between. The budget in 2005 stood at JD 57.3 million and increased to JD 83.7 million in 2009.

39. Although NAF does a reasonable job of identifying who will get benefits, its targeting mechanism (a combination of income and categorical criterion) results in the exclusion of many poor families. Table 11 indicates that 70 percent of NAF beneficiaries are from the poorest two quintiles. However, only about 15 percent of the poor benefit from NAF despite the significant increase in budget and beneficiaries. Under-coverage or errors of exclusion (the proportion of poor households who are not included in the program) therefore are high. Poor working families and families with able-bodied non-working members are not eligible, which constitute the majority of the poor.

	Q1 (poorest)	Q2	Q3	Q4	Q5 (wealthiest)
Distribution of beneficiaries	47	23	15	10	5
NAF coverage (% of each quintile that benefits)	15	7	5	3	2

 Table 11 - Distribution and coverage of NAF Beneficiaries (% to each Quintile)

Source: World Bank/Department of Statistics (2009) Hashemite Kingdom of Jordan: Poverty Update, Washington, DC.

40. In addition, according to a recent analysis by UNICEF, NAF expenditures at the governorate level are not well correlated with poverty levels in the governorates. Amman and Madaba are underserved relative to their share of poverty, while Zarqa, Irbid, Balqa have proportionately more beneficiaries and receive a larger share of resources than their poverty rates would predict. This suggests disparities in the application of the targeting mechanism across governorates.

41. Simulations of the poverty and efficiency impact of the adoption of a different targeting mechanism for cash transfers - the Proxy-Means Testing (PMT)4 - were carried out and compared with the system of targeting currently employed by the NAF using 2006 HIES.5 The budget for targeted social assistance is fixed at JD 53 million, which is at about the amount of assistance the NAF disbursed to beneficiaries in 2006. The results were simulated for two thresholds for the NAF assistance: the 2006 NAF threshold of JD 396 per capita per year, and the 2008/09 national poverty line of JD 504 per capita per year. Simulations (Figure 4) show that a PMT formula performs much better in terms of reaching the population below a certain threshold than the current targeting mechanism. While the current system covers 20 percent of the households with per capita annual consumption expenditures below JD 396, the PMT targeting mechanism could reach 81 percent of such households. Raising the poverty line to JD 504 increases the number of households below it and understandably worsens the targeting outcomes of both systems. Nevertheless, the PMT mechanism could reach four times more of these households than the current mechanism (62 percent vs. 15 percent). In terms of cost efficiency, the simulations indicate that the PMT will be much more cost-efficient, in comparison to the current targeting mechanism. For example, for each JD that is transferred to those with per capita consumption below JD 396 per year (the 2006 target group), the NAF spends about JD 10, because of the high error of inclusion. The proxy-means formula improves this ratio to 1: 2.5 due to 80 percent coverage and a significantly reduced error of inclusion.

<sup>&</sup>lt;sup>4</sup> The proxy-means targeting (PMT) mechanism, is widely used in developing countries. It ranks households' well-being based on observable set of indicators such as quality of housing or ownership of certain durable goods. The PMT mechanism is empirically observed to: (i) deliver good targeting outcomes, if implemented well; (i) be well suited for an economy characterized by high informality and seasonality of economic activities such as Jordan where income is not an accurate indicator of household welfare; (ii) introduce transparency and objectivity into the eligibility testing and assistance award process.

<sup>&</sup>lt;sup>5</sup> The simulations were conducted on the preliminary results of 2006 Jordan Household Income and Expenditure Survey.



Figure 4 – Simulations of NAF Improved Targeting

Source: World Bank based on preliminary results of 2006 Jordan Household Income and Expenditure Survey.

42. In addition, simulations of the poverty impact and budget implications under alternative scenarios were conducted. In all scenarios, it is assumed that the NAF will adopt the PMT targeting mechanism. The first simulations estimate the minimum budget needed to reduce poverty by 10, 20, 30, and 40 percent in a scenario where NAF distributes a uniform amount of cash to all beneficiaries. Simulations involve searching for two optimal parameters, the cut-off score, which will determine the program coverage, and the transfer amount, which every person with a score below the cut-off point will receive.

43. In addition to the uniform scenario, a two-tiered system is simulated, when the total recipient pool is subdivided into two groups using a second cut-off score. Those below this second cut-off score receive a larger transfer than the rest. Depending on the distribution of consumption, and how the rankings by consumption and by score are related, the two-tiered approach may give the same poverty reduction and coverage but with a smaller budget effort.

44. Table 12 presents the first set of results from these simulations. A reduction in the poverty headcount rate from 13.3 percent to 11.7 percent could be achieved with a budget transfer of JD 29 million, by targeting the poorest 320,000 people (utilizing the PMT targeting methodology) and making a uniform transfer of JD 90 per capita. A more ambitious reduction in poverty from 13.3 to 9.1 percent would require a budget of JD 95 million and a homogenous transfer of JD 95 per person. Moderate savings of around 1 percent could be attained if instead of a uniform transfer the NAF takes a two-tier approach.

45. A second set of results is included in Table 13. A NAF transfer that reduces poverty from 13.3 percent to 11.7 percent and is implemented with the PMT targeting methodology would reach 36 percent of the poorest decile of the population, and 8 percent of the second poorest decile. Leakage of transfers to better-off individuals would be minimal--virtually all beneficiaries would come from the poorest half of the population, with minimum leakage to the richer deciles.

A higher reduction in poverty would entail a higher coverage of the population. For example, in a 46. hypothetical scenario of 30 percent reduction in the poverty headcount, 17 percent of the population would be covered under NAF. Still, the simulated leakage of the PMT targeting mechanism would be relatively low --less than 10 percent of beneficiaries would be concentrated in the richer half of the population.

Minimum required budget for given poverty reduction								
	нс	Cut-off	Transfer, JD per person	Beneficiaries	Budget, JD			
Original Poverty rate	13.3							
Reduction of poverty rate by:								
Uniform subsidy								
- 10%	11.7	6.477	90.2	321,219	28,988,012			
- 20%	10.4	6.683	65.0	980,748	63,778,455			
- 30%	9.1	6.684	95.5	991,446	94,724,146			
- 40%	7.8	6.693	137.0	1,024,150	140,316,767			
Two-tier subsidy								
- 10%	11.7				28,677,555			
First group		6.073	157.3	8,591	1,351,755			
Second group		6.477	87.4	312,628	27,325,800			
- 20%	10.4				63,280,027			
First group		6.114	394.7	11,814	4,662,907			
Second group		6.557	112.6	520,768	58,617,120			
- 30%	9.1				94,364,735			
First group		6.186	265.0	26,981	7,150,924			
Second group		6.672	95.5	912,837	87,213,811			
- 40%	7.8				134,666,656			
First group		6.191	343.6	28,788	9,891,930			
Second group		6.714	113.3	1,101,170	124,774,726			

#### Table 12 - Simulation of Cost of Reducing Poverty through NAF

Source: HEIS 2008.

	Quantiles of Consumption without transfer										
	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	Total
Uniform program (92.8)											
Share of Recipients	36.0	8.5	4.1	2.3	0.3	1.6	0.6	0.0	0.2	0.0	5.4
Distribution of recipients	67.2	15.9	7.6	4.3	0.5	2.9	1.0	0.0	0.4	0.1	100.0
Uniform program (65.0)											
Share of Recipients	71.2	42.9	24.2	13.5	7.1	4.8	2.6	1.3	0.5	0.3	16.8
Distribution of recipients	42.3	25.5	14.4	8.0	4.2	2.9	1.5	0.8	0.3	0.1	100.0
Uniform program (95.5)											
Share of Recipients	71.8	43.2	24.5	13.7	7.4	4.9	2.6	1.5	0.5	0.3	17.0
Distribution of recipients	42.1	25.4	14.4	8.1	4.3	2.9	1.5	0.9	0.3	0.1	100.0

Table 13 - Coverage rates and Beneficiary Leakage of simulated NAF options

Source: HEIS 2008

47. In conclusion, this section has shown that the current NAF system for targeting poor households is not optimal, although it is better than spreading transfers over the whole population as it is done with the current system of consumption subsidies. We have also shown that the targeting system can be greatly improved by adopting a proxy-means test (PMT) targeting mechanism. With such a system in place, the objectives of reducing government expenditure and of reducing poverty can be achieved simultaneously by redistributing part of the budget for consumption subsidies to the poor directly via a renewed system of targeting in the NAF.

### V. Pro-poor Products

48. A short study on the tax breaks and exemptions introduced in 2008 was carried out by Nanak Kakwani at the request of the World Bank in 2008 (Kakwani, 2008). The paper provided a methodology to determine how pro-poor the tax breaks were for each of the products by introducing a Pro-poor Price Policy Reform Index (PPRI). An index greater than 1 indicates a pro-poor tax, an index smaller than 1 indicates a pro-rich tax. As indicated by the Graph below, tax exemptions that are most pro-poor are those on cereals, vegetables, cigarettes, fuel and electricity and personal care products. Overall, it is evident that the degree of pro-poorness of products varies a great deal, which suggests that any cash or tax subsidy policy should take this aspect into account in order to minimize the share of subsidies that accrue to the non poor.



Source: Kakwani (2008)

49. If we focus on the consumption products still tax subsidized in 2010, it is clear that tax exemptions on corn, rice and noodles are the most pro-poor of the tax exemptions followed by tax exemptions on lentils and tea and coffee. Therefore, if the government intends to remove tax exemptions from these products the most pro-poor approach would be to start with tax exemptions on dairy products, the least pro-poor of the tax subsidized products.

#### Table 14 - Pro-poorness of tax subsidized products

Group	Tax subsidized products	PPRI
Cereals and Products	Corn, rice, noodles	1.823
Dry and Canned Legumes	Lentils	1.327
Tea Coffee and Cacao	Tea, coffee	1.117
Oils and Fats	Palmoil	1.08
Sugar and Confectionaries	Sugar	1.079
Dairy Products and Eggs	Cheese, milk	0.958

### VI. Simulation of effects in other sectors of the economy

50. The simulations we have presented thus far focus on the first-order effects of a given subsidy removal, i.e. the direct welfare effects triggered by the increase in the price of the subsidized good. There may be, however, second-order effects through price increases of goods and services that use the subsidized good as an input. Ultimately, the magnitude of these indirect effects depends on the linkages across different sectors and industries of the economy. One way to assess the extent of these linkages is to make use of Input-Ouput tables, which provide a comprehensive framework for the study of the connections across sectors of the economy.

51. MoPIC and DoS have constructed input-output tables for the Jordanian context by dividing the economy in 81 sectors, using 2006 as base year. The traditional international classification uses 14 sectors, but adequate data collection efforts in Jordan allow for a more disaggregated level of detail. By accounting for inter-sectoral relationships, we can examine the effects of removing subsidies as the production costs of other sectors go up and prices adjust to the cost increase.

52. The results below illustrate the case of water subsidy elimination, listing the sectors that are more sensitive to the price increase of water. Estimates from MoPIC suggest that the cost of one cubic meter of water is JD 1.14, which - compared to the selling price of 0.598 JD/m3 - yields a unit subsidy in the amount of 0.542 JD/m3. Removing the subsidy would then lead to increase water prices by 90.6 percent.

53. The following table displays the responsiveness across sectors cost to the increase in the price of water. Because of the water-intensive nature of the agricultural sector, the fruits sector (2.73 percent) and vegetables sector (1.61 percent) are more sensitive to water price changes than other sectors, followed by bricks, articles of cement concrete sector (1.50 percent), Fertilizers & Insecticide Sector (1.36 percent), mining sector (1.19 percent), and soft drinks beverages sector.

Sector	Percentage Change in Cost
Fruits Sector	2.73
Vegetables sector	1.61
Bricks, articles of Cement Concrete Sector	1.50
Fertilizers & Insecticide Sector	1.36
Mining Sector	1.19
Soft drink Beverages Sector	1.13
Livestock's & Livestock's Products Sector	0.91
Hotels & Restaurants Sector	0.73
Health Services Sector	0.67
Crops & Other Agriculture Sector	0.63
Dairy Products Sector	0.60
Education Sector	0.46
Construction Sector	0.32
Pharmaceuticals products Sector	0.25
Textile Industry Sector	0.23

### Table 15 - Simulation of effect of water subsidy removal on other sectors

Source: Applications of Jordanian Input-output tables for the year 2006, MOPIC

54. Overall, the magnitude of these second-order effects is rather small. All of these price changes are well into the realm of single digit figures, closer to zero than to five percent. Therefore, this input-output exercise suggests that focusing on the first-order effects is what counts when it comes to understanding the welfare consequences of removing water subsidies.

### VII. Oil Shocks

55. Much of the concern about consumption subsidies generated during the last decade is motivated by sharp increases in the global prices of food and oil products. Up to now, we have simulated cuts in subsidies as if the Jordanian economy was immune from global shocks. In this last section we provide a simple and very basic simulation of an oil price shock on the economy using the same model that MOPIC uses for its projections. This is a VAR model programmed in E-views.

56. We tested the impact of an oil shock on macroeconomic aggregates. The gross assumption here is that cuts in oil subsidies are equivalent to increases in international oil prices and that these increases are fully transferred on to consumers. As international oil prices we used three parameters: USD 68.9/barrel (which is the average actual price over the past 5 years), 107.5 USD/barrel (which is the IMF forecast for 2011) and USD 150/barrel (which is an arbitrary upper bound). This is equivalent to a price increase of 56 percent between USD 68.9 and USD 107.5 and of 118 percent between USD 68.9 and USD 150.

57. The results of this simulation (Table 16) show that GDP would remain approximately stable (supposedly the combination of price increases and reduction in quantities would lead to stable GDP) while private consumption would be reduced by 3 percentage points with a 56 percent increase in oil prices and by 8 percentage points with a 118 percent increase. These are relatively small impacts on private consumption given the large increases in oil prices simulated. However, a reduction of 8 percentage points in final consumption is larger than a cut in all cash and tax subsidies considered in this note. Therefore, oil shocks of the magnitude simulated here can potentially have a greater effect on household consumption than the combination of existing cash and tax subsidies. As the price of oil approaches USD 150 per barrel, the cost of subsidies becomes untenable for the government and the cost for households is bound to increase. This is an additional argument to move quickly to a system of transfers targeted to the poor. Such system would protect the poor and would be sustainable for the government during externally induced food and oil shocks.

JD Millions	Oil price per bar	rrel	
	68.9	107.5	150
GDP (m.JD)	21155	21232	21318
GDP growth	9	10	10
СРІ	131	132	135
Private consumption (m.JD)	15143	14625	13956
Public consumption (m.JD)	4775	6113	6689
Population (000)	6247	6247	6247
Private consumption per capita (JD)	2424	2341	2234
% changes			
Oil price	100	156	218
GDP	100	100	101
GDP growth	100	104	109
СРІ	100	101	104
Private consumption	100	97	92
Public consumption	100	128	140
Population	100	100	100
Private consumption per capita	100	97	92

Source: MOPIC, E-views simulations

### VIII. Rationale and options for reforms

58. The simulations provided in this note have clearly indicated that universal subsidies as the ones adopted by Jordan are regressive, they benefit the non poor relative more than the poor. They have also indicated that removing subsidies would hurt the poor and that the poor need to be compensated if the government decides to remove subsidies. The central question for the Government is how to reform subsidies in a way that is acceptable for the non poor and, at the same time, will not hurt the poor.

59. As a tool-kit for decision making, Table 17 below summarizes the main results of this note. As an example, the first line in the table describes the effect of a 100 percent cut in food subsidies (wheat and barley). Such cut would increase poverty by about 0.6 percentage points and would reduce the expenditure capacity of the poor by about 2 percent. The lower and upper middle class would also be affected, although the impact of consumption would be lower, about 1.3 percent for the lower middle-class and 1 percent for the upper middle-class. Eliminating food subsidies would increase prices of subsidized commodities by 68.6 percent and generate budget savings for JD 103 million (the cost of food subsidies). A reform that would combine cuts in food subsidies with cash transfers that would compensate the poor for the loss of subsidies would cost the government JD 14.4 million, which is about 14 percent of the budget savings. Thus, reading Table 17 by line provides the most essential information for making a decision on reforming subsidies.

60. The picture for subsidies on gas cylinders is similar to that of food but total expenditure on this subsidy is lower than for food and the cost of compensating the poor is also lower, about JD 8.5 million, while the government could save on the cost of subsidies, which in 2010 amounted to JD 88.2 million. The increase in market prices of gas is expected to be around 54 percent.

61. The situation for water subsidies is different, mainly because these subsidies have substantially increased throughout the year 2010. Eliminating these subsidies would save the government JD 220.3 million while the cost of compensating the poor would be of only JD 20.5 m., about 9.3 percent of total savings. We have seen that these subsidies are clearly pro-rich and this explains why the cost of compensating the poor for the loss of subsidies is low.

62. The most drastic of the reforms, the one that would eliminate all the three subsidies considered in this note, would save the GOJ about JD 411.5 m. while the cost of compensating the poor would be JD 45.7 m.

63. In terms of tax subsidies, if sales tax exemptions on all 10 (of the 13) subsidized products were to be removed, fiscal savings would amount to JD 98 million, with only 6.5 percent of this amount needed to compensate the poor for the negative impact on their expenditure.

64. The table below can be easily adjusted to take into account reforms that imply only partial cuts in subsidies given that the results would change proportionally. For example, a 50 percent reduction in food subsidies would reduce all the statistics presented for food in Table 15 by half. Therefore, **the table provides an indication for any gradual reform that the GOJ may want to do**.

Table 17 -	Choice	Box for	Reforms
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Reform	Target	Impact on poverty (percentage change, headcount index)	Impact on consumption of the poor	Impact on consumption of the lower middle-class	Impact on consumption of the upper middle-class	Increase in market price of subsidized commodity	Budget savings (JD)	Cost of compensating the poor (JD)	Cost of compensating the poor (% of budget savings)
100% Cut in food subsidy	Mills, bakers, consumers	+0.6%	-2%	-1.3%	-1.0%	+68.6%	103.0 m.	14.4 m.	+14.0%
100% Cut in gas cylinders subsidy	Consumers, gas industry	+0.5%	-1.7%	-1.2%	-0.9%	+54.0%	88.2 m.	8.5 m.	9.6%
100% Cut in water subsidy	Consumers, WAJ	+1.4%	- 4.3%	-2.9%	-2.1%	+257.2%	220.3 m.	20.5 m.	9.3%
100% cut in all subsidies	All of the above	+1.9%	-5.6%	-3.8%	-2.7%	n.a.	411.5 m.	45.7 m.	11.1%
100% cut in tax subsidies	Consumers, government budget	+0.9%	-1.4%	-1.3%	-1.1%	+16%	97.7 m.	6.4 m.	6.5%

In order to compensate the poor for cuts in consumption subsidies, Jordan would need to 65. move aggressively with implementation of the NAF renewal program, which adopts the PMT method of targeting. As demonstrated in section VI, the introduction of a PMT system could improve the targeting of the poor from about 15 percent to about 80 percent. In the above table, the cost of compensating the poor is simply calculated as the amount that the poor would lose if subsidies were cut. This calculation assumes a PMT targeting method and no cost of targeting<sup>6</sup>. Also, the introduction of a PMT system requires some time and will inevitably imply a certain degree of exclusion error (poor people who are erroneously excluded) and inclusion error (non poor people who are erroneously included). This suggests that reforms have to be phased out in coordination with the phasing in and adjustment of the PMT system. Both the effects of the reduction of subsidies and the introduction of the PMT system need careful monitoring and evaluation to minimize the number of poor who remain excluded from benefits. In fact, while the erroneous inclusion of non poor (especially the below middle-class) may not be a very negative outcome of the transition, the exclusion of the poor can have severe consequences for welfare. This would suggest keeping the threshold for benefits above the poverty line, at least during the period of transition from one system to the other. The introduction of the PMT system could also follow very different approaches such as regional as opposed to country-wide targeting or could be piloted first. All these questions need to be carefully reviewed before launching the transition process.

66. When reforming subsidies, a particular word of caution is also needed for the question of the price implications. One of the first effects of cuts in subsidies will be a sharp increase in market prices. Such increases may be more important for households in the very short-term than the real impact on household consumption. For example, cheap bread may account for a very little share of the household consumption of a middle-income family. But a sharp increase in the price of cheap bread may induce middle-income households to protest. Table 17 shows that prices for food could increase by 68.6 percent, prices for gas cylinders by 54 percent and prices for water bills by 257.2 percent. Alternative estimates

<sup>&</sup>lt;sup>6</sup> Any targeting system has costs associated with implementation. The additional costs of implementing a PMT system in Jordan compared to the current (categorical/income based) system would include such items as: additional social workers to conduct household visits, modernized IT hardware and software, effective media campaigns and outreach, all of which are not very large and which should replace outdated systems and procedures. Costs of implementation of the PMT system is being supported through the World Bank financed "Social Protection Enhancement Project" (SPEP), Component B (\$2.9 million over five years).

from the Ministry of Finance and the Ministry of Trade and Commerce suggest an even sharper price increase in bread, from JD 0.16 to 0.39/kilo. Tax subsidized goods would become 16 percent more expensive, assuming the entire sales tax burden is borne by consumers. These increases will not go unnoticed and can potentially spark severe reactions despite the relatively small effect on actual consumption.

67. If cuts in subsidies are implemented, the government may also be concerned with the reaction of the middle-class. This is understandable as the middle-class represents the largest part of the population and is also most visible when it comes to social claims. However, compensating the middle-class with direct transfers requires a good targeting mechanism, just as it was for the poor. The only difference would be the use of a higher welfare threshold for targeting that would include the middle-class (two-times or four times the poverty line). This would evidently be more costly but would reduce the risk of social unrest.

68. Alternatives to simple cuts in subsidies exist but these are few and the effects on poverty and expenditure are not easily estimated. These alternatives may include self-targeting, categorical targeting and product targeting. Self-targeting can be implemented by linking subsidies to the quality of products. For example, the government may cut subsidies for better quality bread and keep subsidies for lower quality bread. Given than better off households tend not to consume lower quality bread, this measure would be pro-poor. However, these kinds of measures have behavioral effects difficult to estimate – such as encouraging some better off households to shift to lower quality bread. Also, such system increases the likelihood of mismanagement on the part of mills and bakers who would start fiddling with size, weight and flour mixes to a point that the initial intentions of the reform would be largely diluted.

69. **Categorical targeting implies using categories of people rather than welfare thresholds to target consumers**. For example, the government may grant access to subsidized products to only certain categories of needy people such as families with many children or the elderly with no pensions. This would have the advantage that targeting could be done through the subsidies system rather than shifting to the social assistance system with direct transfers. The disadvantage is that categorical targeting often requires the introduction of a voucher or card system where people in need are distributed vouchers or cards that can be used to collect subsidized products. The implementation of such system is costly and usually results in large targeting errors with many poor people being excluded and many rich people being included.

70. **Product targeting is similar to self-targeting but, instead of linking subsidies to different qualities of the same product, the targeting would be done through different products**. This is what was illustrated when we discussed pro-poor products and it would imply to start cutting subsidies for those products that are the least pro-poor such as dairy products (currently tax exempted). However, one may argue that protecting the poor is also about nutrition and the fact that the poor consume less dairy products than the rich should not imply that the poor should consume less of these products. Therefore, product targeting is a good approach insofar cuts in subsidies concern products that are not consumed by the poor and that are not needed by the poor. In the current structure of consumption subsidies in Jordan, it is hard to find any of such products. Therefore, it would be difficult to follow a product targeting strategy.

71. If the GoJ wishes to implement a simple and less risky reform, the easiest option would be to re-introduce the sales tax on exempted products. This is the last option in Table 17. The advantage of this relatively small reform is that it is simple, it is easily understood by the population, it would increase poverty by less than 1% and it would increase prices for subsidized products by only 16%. The

disadvantage of course is that the savings for the government (the increased revenues from the tax increases) would be relatively small, less than 100 millions JD.

72. **Finally, the political economy of reforms needs to be carefully managed.** Successful subsidies reforms require proper and transparent information on the objectives and the contents of the reforms. Public debates and a public information campaign are two ingredients that have proved to reduce opposition to reforms. Reforms could be explained and motivated by a fairer allocation of resources, the necessity to promote energy savings and eco-friendly activities, to reduce dependence on foreign resources, to reduce the public debt, to better cater for the poor, ect. Compensation for some groups through targeted activities may also be necessary if instruments such as the NAF are not able to reach some of the vulnerable groups most affected by the reforms.

### IX. International Experiences in Subsidy Reform

73. A discussion of policy options would not be complete without considering international experience on subsidy reform. Noteworthy are the cases of Mexico and Indonesia. The former conducted a progressive substitution of generalized food subsidies and fragmented programs for targeted cash transfers, with the now widely used approach of making the transfers conditional on children attending school and health checkups. It was introduced in 1997 and today covers a quarter of the population, absorbs 0.5 percent of GDP, and generates positive and durable impacts on children education, health and nutrition. In 2005, Indonesia reformed its inefficient and pro-rich fuel subsidy introducing unconditional transfers to the bottom three deciles of the population to mitigate negative effects of price hikes. Both these reforms were carried out under tight fiscal conditions. Both have had lasting effects on the well being of the poor.

74. Other key considerations when introducing subsidy reforms is the timing of the reforms, and the phase in and transition to other more effective programs. For instance, Indonesia indicated clearly that a compensation scheme with direct transfers to a large number of people would be put in place and that significant increases in health and education expenditures would be allocated from the budget savings of the increased price for gasoline. The Mexico experience demonstrated that is a gradual approach is chosen then starting with goods where price increases are less likely to affect the poor is prudent.

75. While a more detailed discussion on international experience can take place in follow-up engagements to this note, we highlight three key lessons learned from past experiences:

- a) A transition that includes a phase-out of price distortions (subsidies, consumption tax exemptions) and phase-in of compensation mechanisms, while maintaining or even increasing the poor and vulnerable population's real income, generates better results and is less prone to cause instability and alter social order.
- b) A widely cast and well-designed communication strategy plays a crucial role in addressing uncertainties and managing expectations. Making an effective use of available channels to project transparency, clarity on the role of programs, public information on objectives, operation rules, and results is necessary to tackle information asymmetries and concerns of different sectors of the population.
- c) Political leadership and vision are un-substitutable ingredients. A clear and strategic vision on poverty reduction, equity improvement, and commitment to change are essential to the reform's success. The process needs credibility that the government will allocate funds productively with concrete social benefits (investment in education, health, infrastructure, employment) and will compensate the needy and vulnerable.

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Evaluating public policies is complex and the technology available for evaluations is vast ranging from ad hoc randomized evaluations designed before a program is launched to ex-post evaluations based on macro and micro data. Evaluations can also range from simple incidence evaluations where the effect of a policy is simply assessed by looking at direct and primary effects on outputs to impact evaluations that attempt to determine indirect, secondary and behavioral effects of policies.

In our case, we look at consumption subsidies retrospectively and we will limit this initial work to incidence evaluations, i.e. to evaluations that will only consider direct effects by simulating changes in consumption subsidies and their effects on outcomes such as budget costs and household welfare.

Simulations of alternative subsidies reforms can be carried out with macro, micro or macro-micro models. Macro models look at the effects of external and internal shocks on the macro aggregates such as GDP and final household consumption. One can assume, for example, that a cut in subsidies for oil derivatives is equivalent to an external shock in oil prices that is fully transmitted on to consumers. In this case, modeling cuts in subsidies is equivalent to modeling exogenous shocks and this can be done with either general equilibrium models or with less ambitious macro econometric models. These models allow for measuring primary and secondary effects, meaning direct effects on outputs and indirect effects induced by behavioral changes. Static and dynamic models are both possible with macro models.

Micro models use instead micro data such as household consumption surveys and focus on estimating the effects of changes in prices on the overall welfare of households, on the distribution of welfare and on poverty and inequality. Cuts in subsidies result in increased prices and micro-economic simulations amount to test changes in prices of specific subsidized products. This type of simulations is effective in determining distributional impacts that cannot be measured with macro models but are limited by the fact that it is difficult to estimate secondary and behavioral effects unless one has panel data and designs a specific model able to capture elasticities between inputs and outputs and elasticities of substitution between agents and products.

Macro-micro models are the most complex but also the better tool to use for simulations of subsidies. These models can be set in a Computable General Equilibrium framework using software such as GAMS or in a macro-econometric framework using software such as E-views. CGE models would generally be preferable because of closure rules and the solvers in-built in the software available. These models use both macro and micro data. In addition to the macroeconomic indicators, CGE models can include the Social Accounting Matrix (SAM) and also the entire matrix of households taken from the household budget surveys (therefore having all available households rather than one representative household) and the entire matrix of enterprises (therefore having all producers rather than representative aggregated economic sectors). Macro-micro models of this kind can simulate primary and secondary behavioral effects and can provide the changes induced by subsidies on all macro and micro-economic indicators. They can also measure changes in poverty and inequality and provide indications on the changes in the distribution of welfare due to changes in subsidies.

The Government of Jordan has currently limited tools for simulations.7 The Ministry of Finance (MOF) uses a macroeconometric model in E-views that can be used for some limited macro simulations of subsidies reforms. The ministry of Planning and International Cooperation (MOPIC) uses input-output tables as well as a macro model in E-views (VAR). These two tools can be used to make basic simulations of changes in prices and their impact of macroeconomic aggregates. The Department of Statistics (DOS) does not use any particular model for simulations but the available micro data allow for some basic incidence analyses using ready-made packages such as ADePT produced by the World Bank,

<sup>&</sup>lt;sup>7</sup> Note that the overview of models used by the GOJ is only partial and limited to a few directions under MOF, MOPIC and DOS.

DASP for STATA produced by the University of Laval in Canada or designing ad hoc programming codes for simulations in available statistical packages such as SPSS or STATA.

# Tax breaks and exemptions (2008)

Item			
No.	Item Name	Type of Exemption	<b>Decision Date</b>
I)	Food Items:		
1	Milk	GST Exemption	2-Jan
2	Cheeses	GST Exemption	3-Jan
3	Humus	GST Exemption	4-Jan
4	Lentils	GST Exemption	5-Jan
5	Coffee	GST Exemption	6-Jan
6	Tea	GST Exemption	7-Jan
7	Rye	GST Exemption	8-Jan
8	Rice	GST Exemption	9-Jan
9	Yellow corn	GST Exemption	10-Jan
10	Corn flower	GST Exemption	11-Jan
11	Palm oil	GST Exemption	12-Jan
12	Sugar	GST Exemption	13-Jan
13	Noodles	GST Exemption	14-Jan
14	Fresh beef	Apply 0 tax rate	15-Apr
15	Frozen beef	Apply 0 tax rate	16-Apr
16	Goat and sheep fresh meat	Apply 0 tax rate	17-Apr
17	Goat and sheep frozen meat	Apply 0 tax rate	18-Apr
18	Goat and sheep cooled meat	Apply 0 tax rate	19-Apr
19	Frozen and uncyt pultry meat	Apply 0 tax rate	20-Apr
	Identified fresh or frozen fish (includes 8		
20	kinds of fish)	Apply 0 tax rate	21-Apr
	Fresh and frozen chopped fish filet		
21	(includes 2 kinds of fish)	Apply 0 tax rate	22-Apr
22	Butter	Apply 0 tax rate	23-Apr
23	Fat products	Apply 0 tax rate	24-Apr
24	Dairy products including fat	Apply 0 tax rate	25-Apr
25	Oils extracted from yogurt	Apply 0 tax rate	26-Apr
	Fresh or frozen potatoes except those		
26	prepared for seeds	Apply 0 tax rate	27-Apr
	Sardine, Sardinella, Tuna, Aspert, Ponet,		
27	Sarda, Small Ranga (names of fish)	Apply 0 tax rate	28-Apr
28	Natural Honey	Apply 0 tax rate	29-Apr
II)	Internet services		11-Jun
29	Internet Services provided for land lines	Decrease GST from 16% to 8%	11-Jun
III)	Energy Saving Equipments:		15-Apr
30	Paint with chrome basis	Apply 0 Rate Tax	15-Apr
31	Paint with copper or nickel basis	Apply 0 Rate Tax	15-Apr
	Tempered glass imported by		
32	manufactures as production input	Apply 0 Rate Tax	15-Apr
	Saj (arabic word for a metal that is used		
33	in solar plates)	Apply 0 Rate Tax	15-Apr

	Copper pipes imported by manufactures		
34	as production input	Apply 0 Rate Tax	15-Apr
	All valves: thermostatic, three way, four		1
	way and selonoid imported by		
35	manufacturers as production input	Apply 0 Rate Tax	15-Apr
	Wind energy production systems (whole		<b>1</b>
36	system)	Apply 0 Rate Tax	15-Apr
37	Pumps	Apply 0 Rate Tax	15-Apr
	Heat censors for industrial use imported		
38	by manufacturers as production input	Apply 0 Rate Tax	15-Apr
	Blocking valves imported by		•
39	manufacturers as production input	Apply 0 Rate Tax	15-Apr
40	Solar receivers	Apply 0 Rate Tax	15-Apr
41	Solar panels	Apply 0 Rate Tax	15-Apr
	Flexible pipes and whose enduring		<b>^</b>
42	pressure of at least 27.6 MPa	Apply 0 Rate Tax	15-Apr
43	Steel pipes	Apply 0 Rate Tax	15-Apr
44	Supplies for linking and pulling	Apply 0 Rate Tax	15-Apr
45	Binding materials	Apply 0 Rate Tax	15-Apr
46	Elbow connections	Apply 0 Rate Tax	15-Apr
47	Supplies for forging	Apply 0 Rate Tax	15-Apr
48	T shaped connections	Apply 0 Rate Tax	15-Apr
	Parts of wind energy systems: blades,		Î
49	generators or gears	Apply 0 Rate Tax	15-Apr
50	Towers	Apply 0 Rate Tax	15-Apr
51	Wind speed measurement equipments	Apply 0 Rate Tax	15-Apr
	Hydraulic equipments to control the		
52	system	Apply 0 Rate Tax	15-Apr
	Electronic equipments to control the		
53	system	Apply 0 Rate Tax	15-Apr
54	Temperature control equipments	Apply 0 Rate Tax	15-Apr
55	Water tank with isolation and thermostat	Apply 0 Rate Tax	15-Apr
56	Solar energy system (whole system)	Apply 0 Rate Tax	15-Apr
	Electrostatic changers weighting less		
57	than 10 Kg	Apply 0 Rate Tax	15-Apr
58	Lead for batteries	Apply 0 Rate Tax	15-Apr
59	ACs working with solar energy	Apply 0 Rate Tax	15-Apr
60	Refrigerators working with solar energy	Apply 0 Rate Tax	15-Apr
61	Heating and cooling control systems	Apply 0 Rate Tax	15-Apr
62	Isolator (rocky wool)	Apply 0 Rate Tax	15-Apr
63	Polyester	Apply 0 Rate Tax	15-Apr
64	Polirythinate	Apply 0 Rate Tax	15-Apr
65	Fiber glass	Apply 0 Rate Tax	15-Apr
66	Sun beam reflectors	Apply 0 Rate Tax	15-Apr
67	Equipments for energy efficient of plants	Apply 0 Rate Tax	15-Apr
68	Energy saving bulbs	Apply 0 Rate Tax	15-Apr
69	Fluorescent lamps	Apply 0 Rate Tax	15-Apr
70	Lighting control systems	Apply 0 Rate Tax	15-Apr
71	Dimmers	Apply 0 Rate Tax	15-Apr
72	Sodium lamps	Apply 0 Rate Tax	15-Apr

	Lighting units made of electronic fuses		
73	reflecting light	Apply 0 Rate Tax	15-Apr
74	Wind valves that saves energy	Apply 0 Rate Tax	15-Apr
75	Air leakage detectors	Apply 0 Rate Tax	15-Apr
76	Hybrid cars	Apply 0 Rate Tax	15-Apr
77			15-Apr
IV)	Other Energy Equipments		15-Apr
78	Cooling towers	Exemption on Duty Tax only	15-Apr
	Air compressors with units that return		
79	back heat	Exemption on Duty Tax only	15-Apr
80	Compressed air control equipments	Exemption on Duty Tax only	15-Apr
81	Isolation materials that include alumina	Exemption on Duty Tax only	15-Apr
82	Economizers and air pre-heaters	Exemption on Duty Tax only	15-Apr
83	Heat distributors	Exemption on Duty Tax only	15-Apr
	High quality engines for multiple usage		
	with capacity between 750 watts and 75		
84	Kw	Exemption on Duty Tax only	15-Apr
	Monophase Engines with alternative		
	electric courant for consumption savings		
85	of highly efficient energy	Exemption on Duty Tax only	15-Apr
86	Igniters of electrical engines	Exemption on Duty Tax only	15-Apr
87	Extinguishers	Exemption on Duty Tax only	15-Apr
88	Electronic delimiters	Exemption on Duty Tax only	15-Apr
89	High efficiency burners	Exemption on Duty Tax only	15-Apr
90	Loss energy collectors	Exemption on Duty Tax only	15-Apr
	Agriculture and Livestock Inputs		
<b>V</b> )	Agriculture and Livestock Inputs (group A):		27-Aug
<b>V</b> ) 91	Agriculture and Livestock Inputs (group A):Pesticides	GST exemption (previously 4%)	27-Aug 27-Aug
V) 91 92	Agriculture and Livestock Inputs (group A):PesticidesPlastic covers for agriculture	GST exemption (previously 4%) GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug
<b>V</b> ) 91 92 93	AgricultureandLivestockInputs(group A):PesticidesPlastic covers for agriculturePlanting plates for agriculture	GST exemption (previously 4%) GST exemption (previously 4%) GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug
V) 91 92 93 94	Agriculture and Livestock Inputs (group A):PesticidesPlastic covers for agriculturePlanting plates for agricultureTrees, plants, roots, flowers, leaves	GST exemption (previously 4%) GST exemption (previously 4%) GST exemption (previously 4%) GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
V) 91 92 93 94 95	Agriculture and Livestock Inputs (group A):PesticidesPlastic covers for agriculturePlanting plates for agricultureTrees, plants, roots, flowers, leavesSeeds	GST exemption (previously 4%)GST exemption (previously 4%)GST exemption (previously 4%)GST exemption (previously 4%)GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
V) 91 92 93 94 95 96	Agriculture and Livestock Inputs (group A):PesticidesPlastic covers for agriculturePlanting plates for agricultureTrees, plants, roots, flowers, leavesSeedsAgricultar products containers and cans	GST exemption (previously 4%)GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
V) 91 92 93 94 95 96 97	AgricultureandLivestockInputs(group A):PesticidesPlastic covers for agriculturePlanting plates for agricultureTrees, plants, roots, flowers, leavesSeedsAgricultar products containers and cansSkeletons of plastic tents	GST exemption (previously 4%)GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
V) 91 92 93 94 95 96 97 98	Agriculture and Livestock Inputs (group A):PesticidesPlastic covers for agriculturePlanting plates for agricultureTrees, plants, roots, flowers, leavesSeedsAgricultar products containers and cansSkeletons of plastic tentsTractors	GST exemption (previously 4%)GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
V) 91 92 93 94 95 96 97 98	Agriculture and Livestock Inputs (group A):PesticidesPlastic covers for agriculturePlanting plates for agricultureTrees, plants, roots, flowers, leavesSeedsAgricultar products containers and cansSkeletons of plastic tentsTractorsEquipments and machinery needed in	GST exemption (previously 4%)GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
V) 91 92 93 94 95 96 97 98	Agriculture and Livestock Inputs (group A):PesticidesPlastic covers for agriculturePlanting plates for agricultureTrees, plants, roots, flowers, leavesSeedsAgricultar products containers and cansSkeletons of plastic tentsTractorsEquipments and machinery needed in agriculture, gardening, plowing, pultry	GST exemption (previously 4%)GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
V) 91 92 93 94 95 96 97 98 99	Agriculture and Livestock Inputs (group A):PesticidesPlastic covers for agriculturePlanting plates for agricultureTrees, plants, roots, flowers, leavesSeedsAgricultar products containers and cansSkeletons of plastic tentsTractorsEquipments and machinery needed in agriculture, gardening, plowing, pultry raising, bird raisinf and bee keeping	GST exemption (previously 4%)GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
V) 91 92 93 94 95 96 97 98 99	Agriculture and Livestock Inputs (group A):PesticidesPlastic covers for agriculturePlanting plates for agricultureTrees, plants, roots, flowers, leavesSeedsAgricultar products containers and cansSkeletons of plastic tentsTractorsEquipments and machinery needed in agriculture, gardening, plowing, pultry raising, bird raisinf and bee keepingEquipments and machinery for crops	GST exemption (previously 4%)GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
V) 91 92 93 94 95 96 97 98 99 100	Agriculture and Livestock Inputs (group A):PesticidesPlastic covers for agriculturePlanting plates for agricultureTrees, plants, roots, flowers, leavesSeedsAgricultar products containers and cansSkeletons of plastic tentsTractorsEquipments and machinery needed in agriculture, gardening, plowing, pultry raising, bird raisinf and bee keepingEquipments and machinery for crops collection	GST exemption (previously 4%)GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
V) 91 92 93 94 95 96 97 98 99 100	Agriculture and Livestock Inputs (group A):PesticidesPlastic covers for agriculturePlanting plates for agricultureTrees, plants, roots, flowers, leavesSeedsAgricultar products containers and cansSkeletons of plastic tentsTractorsEquipments and machinery needed in agriculture, gardening, plowing, pultry raising, bird raisinf and bee keepingEquipments and machinery for crops collectionResiduals of agri-food industry and	GST exemption (previously 4%)GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
V) 91 92 93 94 95 96 97 98 99 100 101	AgricultureandLivestockInputs(group A):PesticidesPlastic covers for agriculturePlanting plates for agricultureTrees, plants, roots, flowers, leavesSeedsAgricultar products containers and cansSkeletons of plastic tentsTractorsEquipments and machinery needed in agriculture, gardening, plowing, pultry raising, bird raisinf and bee keepingEquipments and machinery for crops collectionResiduals of agri-food industry and animal feed	GST exemption (previously 4%)GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
V) 91 92 93 94 95 96 97 98 99 100 101 102	Agriculture and Livestock Inputs (group A):PesticidesPlastic covers for agriculturePlanting plates for agricultureTrees, plants, roots, flowers, leavesSeedsAgricultar products containers and cansSkeletons of plastic tentsTractorsEquipments and machinery needed in agriculture, gardening, plowing, pultry raising, bird raisinf and bee keepingEquipments and machinery for crops collectionResiduals of agri-food industry and animal feedSupplements for animal feeds	GST exemption (previously 4%)GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
V) 91 92 93 94 95 96 97 98 99 100 101 102 103 103	Agriculture and Livestock Inputs (group A):PesticidesPlastic covers for agriculturePlanting plates for agricultureTrees, plants, roots, flowers, leavesSeedsAgricultar products containers and cansSkeletons of plastic tentsTractorsEquipments and machinery needed in agriculture, gardening, plowing, pultry raising, bird raisinf and bee keepingEquipments of agri-food industry and animal feedSupplements for animal feedsPrimary inputs for animal feed	GST exemption (previously 4%)GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
V) 91 92 93 94 95 96 97 98 99 100 101 102 103 104	Agriculture and Livestock Inputs (group A):PesticidesPlastic covers for agriculturePlanting plates for agricultureTrees, plants, roots, flowers, leavesSeedsAgricultar products containers and cansSkeletons of plastic tentsTractorsEquipments and machinery needed in agriculture, gardening, plowing, pultry raising, bird raisinf and bee keepingEquipments and machinery for crops collectionResiduals of agri-food industry and animal feedSupplements for animal feedsPrimary inputs for animal feedEggs	GST exemption (previously 4%)GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
V) 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105	AgricultureandLivestockInputs(group A):PesticidesPlastic covers for agriculturePlanting plates for agricultureTrees, plants, roots, flowers, leavesSeedsAgricultar products containers and cansSkeletons of plastic tentsTractorsEquipments and machinery needed in agriculture, gardening, plowing, pultry raising, bird raisinf and bee keepingEquipments and machinery for crops collectionResiduals of agri-food industry and animal feedSupplements for animal feedsPrimary inputs for animal feedEggsHens	GST exemption (previously 4%)GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
V) 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106	Agriculture and Livestock Inputs (group A):PesticidesPlastic covers for agriculturePlastic covers for agriculturePlanting plates for agricultureTrees, plants, roots, flowers, leavesSeedsAgricultar products containers and cansSkeletons of plastic tentsTractorsEquipments and machinery needed in agriculture, gardening, plowing, pultry raising, bird raisinf and bee keepingEquipments and machinery for crops collectionResiduals of agri-food industry and animal feedSupplements for animal feedsPrimary inputs for animal feedEggsHensVeterenary medicine	GST exemption (previously 4%)GST exemption (previously 4%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug

108	All kind of egg plates	GST exemption (previously 4%)	27-Aug
109	Fertilizers	GST exemption (previously 4%)	27-Aug
110	Soil	GST exemption (previously 4%)	27-Aug
111	Calcium Nitrate	GST exemption (previously 4%)	27-Aug
112	Yuria	GST exemption (previously 4%)	27-Aug
113	Amoniac	GST exemption (previously 4%)	27-Aug
114	DAP	GST exemption (previously 4%)	27-Aug
115	МКР	GST exemption (previously 4%)	27-Aug
116	Yuria phosphate	GST exemption (previously 4%)	27-Aug
117	Potassium chloride 60%	GST exemption (previously 4%)	27-Aug
118	Hyomic acid	GST exemption (previously 4%)	27-Aug
119	Amino acids	GST exemption (previously 4%)	27-Aug
120	Agriculture Hormones	GST exemption (previously 4%)	27-Aug
			27-Aug
	Agriculture and Livestock Inputs		
VI)	Agriculture and Livestock Inputs (group B)		27-Aug
<b>VI</b> ) 121	Agriculture and Livestock Inputs(group B)Seeds in special cans	GST exemption (previously 16%)	27-Aug 27-Aug
<b>VI</b> ) 121 122	Agriculture and Livestock Inputs(group B)Seeds in special cansNAP	GST exemption (previously 16%) GST exemption (previously 16%)	27-Aug 27-Aug 27-Aug
<b>VI</b> ) 121 122 123	Agriculture and Livestock Inputs (group B)Seeds in special cansNAPPotassium nitrate	GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)	27-Aug 27-Aug 27-Aug 27-Aug
<b>VI)</b> 121 122 123 124	Agriculture and Livestock Inputs (group B)Seeds in special cansNAPPotassium nitrateMagnesium nitrate	GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
<b>VI</b> ) 121 122 123 124 125	Agriculture and Livestock Inputs (group B)Seeds in special cansNAPPotassium nitrateMagnesium nitratePotassium sulfate 50%	GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
<b>VI)</b> 121         122         123         124         125	Agriculture and Livestock Inputs (group B)Seeds in special cansNAPPotassium nitrateMagnesium nitratePotassium sulfate 50%	GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
VI) 121 122 123 124 125	Agriculture and Livestock Inputs (group B)Seeds in special cansNAPPotassium nitrateMagnesium nitratePotassium sulfate 50%Steel Products:	GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
VI) 121 122 123 124 125 	Agriculture and Livestock Inputs (group B)Seeds in special cansNAPPotassium nitrateMagnesium nitratePotassium sulfate 50%Steel Products:Fortified steel for construction (5.5)	GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug
VI)           121           122           123           124           125           126	Agriculture and Livestock Inputs (group B)Seeds in special cansNAPPotassium nitrateMagnesium nitratePotassium sulfate 50%Steel Products:Fortified steel for construction (5.5 millimeter and above)	GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)Decrease GST from 16% to 8%	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 15-Apr
VI)           121           122           123           124           125           126           127	Agriculture and Livestock Inputs (group B)Seeds in special cansNAPPotassium nitrateMagnesium nitratePotassium sulfate 50%Steel Products:Fortified steel for construction (5.5 millimeter and above)Bolt steel	GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)Decrease GST from 16% to 8%GST Exemption	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 15-Apr 29-Apr
VI)           121           122           123           124           125           126           127	Agriculture and Livestock Inputs (group B)Seeds in special cansNAPPotassium nitrateMagnesium nitratePotassium sulfate 50%Steel Products:Fortified steel for construction (5.5 millimeter and above)Bolt steelSteel nets used in fortifying steel bars for	GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)Decrease GST from 16% to 8%GST Exemption	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 15-Apr 29-Apr
VI)         121         122         123         124         125         126         127         128	Agriculture and Livestock Inputs (group B)Seeds in special cansNAPPotassium nitrateMagnesium nitratePotassium sulfate 50%Steel Products:Fortified steel for construction (5.5 millimeter and above)Bolt steelSteel nets used in fortifying steel bars for construction	GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)GST exemption (previously 16%)Decrease GST from 16% to 8%GST ExemptionGST Exemption	27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 27-Aug 15-Apr 29-Apr 30-Apr

# Tax breaks and exemptions (2010)

Number	Category
1	Special nutrition items for children, disabled people or food for special case disease
2	Supplied for the disabled
3	Input for the pharmaceutical industry and industrial machinery
4	Books and other printed items
5	Low density black polyethylene
6	Petroleum oils and oils, except all types of gasoline
7	Fresh bovine meat
8	Frozen bovine meat
9	Fresh or frozen sheep and goat meat
10	Frozen poultry
11	Fresh and frozen fish
12	Fresh and frozen fish
13	Fresh and frozen fish
14	Butter and products from fats and oils
15	Natural honey
16	Fresh or frozen potato
17	Fresh and frozen fish
18	Chrome paint
19	Chrome paint
20	Glass
21	Tin
22	Pipes and tubes
23	Valves
24	Power generation system
25	Pumps
26	Heat sensors for industrial use
27	Valves
28	Solar corrector
29	Solar cells
30	Tubes and pipes
31	Metallic tubes
32	Supplies used for industrial lifting and connecting
33	Parts and supplies related wind energy
34	Supplies used for energy and renewable energy generation
35	Devices for wind speed and direction measuring
36	Hydraulic control system
37	Electronic control system devices
38	Devices for controlling temperature
39	Insulated water tank insulated with heat exchanger
40	Solar water heating systems intended for domestic use
41	Power converters
42	Batteries
43	Solar air conditioners
44	Solar refrigerators
45	Devices for controlling temperature
46	Insulators

GST Full Exemption- Goods

47	Buildings insulators
48	Buildings insulators
49	Sun reflective sheets and plates
50	Devices to improve power plants
51	Lamps and tubes
52	Light control devices
53	Light control devices
54	Light devices
55	Light devices
56	Devices for energy generation
57	Air leak detectors
58	Agricultural pesticides
59	Agricultural plastic covers
60	Plates for planting
61	Agricultural seeds and plants
62	Agricultural seeds and plants
63	Agricultural containers
64	Agricultural plastic houses
65	Agricultural tractors
66	Agricultural equipment
67	Agricultural equipment
68	Residue and waste from the food industry
69	Prepared animal feed
70	Input for animal feed production
71	Eggs
72	Different kinds for chicks
73	Veterinary drugs
74	Veterinary vaccines
75	Trays used for egg packaging
76	Agricultural fertilizers
77	Soil
78	Calcium Nitrate
79	Urea
80	Ammonium
81	Diammonium phosphate (DAP)
82	Potassium phosphate (MKP)
83	Urea phosphate
84	Potassium chloride
85	Humic Acid
86	Amino acids
8/	Agricultural normones
88	Ammonium pnospnate (NPK)
89	Potassium nitrate
90	Nagnesium nitrate
91	Potassium suirate
92	Perulizers
93	Purchase of registered companies in the QIZ

Number	Category
1	Wheat flour

2	Bread
3	Water
4	Olive oil
5	A few items prepared by non-classified restaurants
6	Plastic mats
7	Paper money and coins
8	Gold and jewelry in all forms
9	Islamic banks products
10	Electric power
11	Duly cleared cars
12	Hand driven vehicles
13	Fire extinguishing vehicles
14	Aircraft, ships and their spare parts
15	Donated goods to orphanages, shelters, for the disabled, hospitals, mosques, the Zakat Fund,
	charities and churches.
16	Touristic cars
17	Cars transporting 10 or more passengers
18	Mobile phones
19	Milk
20	Chickpeas
21	Lentils
22	Tea
23	Wheat
24	Rice
25	Corn
26	Corn flour
27	Sugar
28	Vermicelli
29	Processed chickpeas and lentils
30	Foam insulation
21	Electric cars

# GST Full Exemptions -Services

Number	Category
1	Electricity production and distribution
2	Collection, purification and distribution of water
3	Construction performed under specific contracts
4	Land transportation (with a few exceptions)
5	Maritime transportation
6	Air transport
7	Other transportation services
8	Financial brokerage (with a few exceptions)
9	Life insurance and pension (except Social Security)
10	Supporting brokerage services
11	Land purchase and sell
12	Land rent
13	Services of legal offices for courts case follow-up
14	Public administration and defense, compulsory social security
15	Education
16	Health and social work (with exceptions)

17	Sewage disposal and other public health activities
18	Religious organizations' activities
19	Political organizations' activities
20	Radio and TV activities
21	News agencies activities
22	Libraries and museums' activities and other cultural activities
23	Funeral activities
24	Activities of the office of a facility outside the Kingdom
25	Non-regional organizations and bodies
26	Services subject to the VAT
27	Some dishes made from specific ingredients
28	Olive mill service
29	Medical and accident insurance
30	Re-insurance
31	Sport training

# Subject to 4% GST, instead of 16%

Number	Category
1	Live animals
2	Edible meat
3	Fish (with a few exceptions)
4	Dairy products
5	Agricultural seeds and plants
6	Dried or frozen vegetables
7	Dried, fresh or frozen fruits
8	Cereals
9	Thyme
10	Products from milling
11	Fruits and seeds used for sowing
12	Plants used for manufacturing of perfume, pharmaceutical products, insecticides
13	Straw and peeled beans
14	Cabbage, beet and related vegetables
15	Fats and vegetable oils except olive oil
16	Meat and fish
17	Sugar cane or sugar beet
18	Molasses for the manufacture of yeast
19	Raw pasta
20	Processed vegetables and fruits
21	Tomato paste
22	Olive
23	Olive
24	Fresh yeast
25	Halava
26	Kunafa and other sweets
27	Residue and waste from the food industry for animals
28	Gravel
29	Crude phosphate
30	Petroleum oils
31	Potash
32	Radioactive isotopes

33	Carbonate salts
34	Pharmaceutical products
35	Fertilizers
36	Laboratory reagents
37	Sanitizing products
38	Acid salts
39	Bags used by patients
40	Trays used for egg packaging
41	Condoms
42	Sheets, strips, panels for coating windows
43	Other rubber products
44	Special forms of tire dressing
45	Rubber robes for tires
46	External tires for trucks
47	Erasers
48	Sharpeners
49	Ballpoint pens, pencils and crayons
50	School bags
51	School and university books
52	Rulers and geometry set
53	Fertilizers
54	Insecticides
55	Agricultural plastic covers
56	Plates for planting
57	Agricultural containers
58	Kerosene or gas heaters
59	Agricultural plastic houses
60	Brick, except refractory bricks
61	Agricultural tractors
62	Agricultural tools
63	Agricultural equipment
64	Agricultural equipment
65	Tents and related accessories
66	Fire extinguishers, alarms and air purifiers
6/	Ambulance cars and trucks
68	Medical lenses
69 70	Industrial filters
70	Balloon for heart muscle
/1	Viner devices used for heart problems
72	Medical Lainta
75	Nedical Joints
74	Diavides for the blood
75	Tools used for expending best ertery
70	Artificial heart values
78	Autorial lical valves Medical avvgen masks and related items
70	Pagnirators
80	Injections including needles
81	Noodlas
82	Orthonedic appliances
02	ormopour appliances

83	School uniforms and school uniform fabrics
84	Shampoo used to treat lice and nits, fungi and parasites
85	Sesame seeds
86	Leguminous vegetables
87	Basic cake
88	Materials used as fertilizers
89	Used imported tires
90	Canned beans

Subsidy provided By / To Tariff Sectors 2008					
		-		Average	
				Price for	
		Percentage	Actual Average	all	
	Consumption	consumption	Price	Sectors	Subsidy
				Fills/KW	Million
	GWH	%	Fills/KWH	Н	JD
Domestic	4,198.86	37.49%	60.71	58.65	8.66
Commercial sector	1,857.80	16.59%	80.62	58.65	40.81
Armed Forces	244.14	2.18%	73.66	58.65	3.67
Large Industries	985.90	8.80%	62.27	58.65	3.57
Agriculture /					
Commercial	17.59	0.16%	69.97	58.65	0.20
Small Industries	558.70	4.99%	47.04	58.65	(6.48)
Medium Industries	1,340.08	11.96%	47.78	58.65	(14.56)
Agriculture	480.02	4.29%	44.91	58.65	(6.60)
Water Pumping	1,220.69	10.90%	40.49	58.65	(22.17)
Street Lighting	284.86	2.54%	33.84	58.65	(7.07)
Port corporation	12.01	0.11%	56.23	58.65	(0.03)
Grand Total	11,200.65	100.00%	58.65	58.65	0.00

### ANNEX 3 – ELECTRICITY SUBSIDIES

Subsidy provided By / To Tariff Sectors 2009						
		-		Average		
				Price for		
		Percentage	Actual Average	all		
	Consumption	consumption	Price	Sectors	Subsidy	
				Fills/KW	Million	
	GWH	%	Fills/KWH	Н	JD	
Domestic	4,555.44	39.05%	63.62	61.78	8.41	
Commercial sector	1,905.73	16.33%	86.15	61.78	46.45	
Armed Forces	272.92	2.34%	81.59	61.78	5.41	
Large Industries	927.46	7.95%	65.18	61.78	3.15	
Agriculture /						
Commercial	19.72	0.17%	72.98	61.78	0.22	
Small Industries	573.07	4.91%	48.91	61.78	(7.37)	
Medium Industries	1,319.27	11.31%	49.72	61.78	(15.92)	
Agriculture	523.85	4.49%	46.76	61.78	(7.87)	
Water Pumping	1,233.60	10.57%	40.94	61.78	(25.71)	
Street Lighting	311.18	2.67%	38.66	61.78	(7.20)	
Port corporation	24.43	0.21%	58	61.78	(0.09)	
Grand Total	11,708.71	100.00%	61.78	61.78	0.00	

Subsidy provided By / To Tariff Sectors 2010					
				Average	
				Price for	
		Percentage	Actual Average	all	
	Consumption	consumption	Price	Sectors	Subsidy
				Fills/KW	Million
	GWH	%	Fills/KWH	Н	JD
Domestic	4,900.14	39.07%	64.63	62.68	9.55
Commercial sector	2,109.26	16.82%	87.04	62.68	51.38
Armed Forces	295.54	2.36%	82.34	62.68	5.81
Large Industries	843.67	6.73%	65.4	62.68	2.30
Agriculture /					
Commercial	22.74	0.18%	72.3	62.68	0.22
Small Industries	604.40	4.82%	49.8	62.68	(7.78)
Medium Industries	1,570.88	12.52%	50.51	62.68	(19.11)
Agriculture	568.30	4.53%	47.52	62.68	(8.61)
Water Pumping	1,285.36	10.25%	41.76	62.68	(26.88)
Street Lighting	316.29	2.52%	40.42	62.68	(7.04)
Port corporation	26.86	0.21%	44.13	62.68	(0.50)
Grand Total	12,570.00	100.00%	62.68	62.68	0.00

Subsidy provided By / To Tariff Sectors 2011 (Projection)						
				Average		
				Price for		
		Percentage	Actual Average	all		
	Consumption	consumption	Price	Sectors	Subsidy	
				Fills/KW	Million	
	GWH	%	Fills/KWH	Н	JD	
Domestic	5,187.12	38.99%	64.94	62.68	11.75	
Commercial sector	2,223.76	16.72%	87	62.68	54.09	
Armed Forces	303.12	2.28%	79.3	62.68	5.04	
Large Industries	843.21	6.34%	66.33	62.68	3.08	
Agriculture /						
Commercial	27.37	0.21%	74	62.68	0.31	
Small Industries	656.02	4.93%	50	62.68	(8.32)	
Medium Industries	1,656.12	12.45%	50.42	62.68	(20.30)	
Agriculture	641.20	4.82%	48	62.68	(9.41)	
Water Pumping	1,375.56	10.34%	42	62.68	(28.44)	
Street Lighting	362.62	2.73%	41.48	62.68	(7.69)	
Port corporation	27.12	0.20%	59	62.68	(0.10)	
Grand Total	13,324.98	100.00%	62.68	62.68	0.00	