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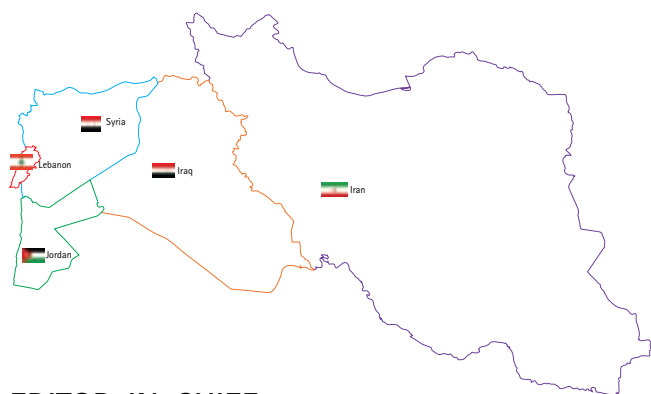
# Development HORIZONS

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In this edition

**Combatting Water Scarcity in  
the Middle East**



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## The Middle East's Water Scarcity... Urgency to Act Now



The Middle East and North Africa is the most water scarce region in the world, and per capita availability in the region is predicted to halve by 2050 as the population grows. But scarcity is only one of the water-related challenges facing MENA countries: altered rainfall patterns due to climate change, shifting demand structures and rising industrial and urban pollution all complicate efforts to efficiently manage water resources.

It is almost a feat that the Middle East, which is plagued with conflicts, has so far managed to avoid major water wars, even though water is a life-and-death economic issue for the people of the region. But for many of these nations, which already are treading the razor's edge of conflict, water is becoming increasingly a catalyst for confrontation – an issue of national security and foreign policy as well as domestic stability.

Given water's growing ability to redefine interstate relations, the success of future efforts to address water sharing and distribution will hinge upon political and strategic management at the national and regional levels of this diminishing natural resource. Already considered a zone of conflict in international planning, the Middle East stands poised to deteriorate into regional infighting over water allocation and accessibility if appropriate strategic and policy means are not urgently applied.

Most of the water that we use does not go to drinking, washing or flushing the lavatory. It is imbedded in foods which may even appear perfectly dry – such as flour. We each drink about one cubic meter of water a year and use between 50 and 100 for domestic purposes. But it takes a further 1,000 cubic meters a year to meet each person's food needs. So, although it may help to take a bath less often, this is but a drop in the ocean compared with the use of water for irrigating farmlands, which consume about 85 percent of the region's water.

In water-short circumstances, according to basic economic principles, water should be allocated to uses which bring the best economic and social return. In agriculture, water should be allocated to crops which bring the highest economic and social value, while using the most effective irrigation technologies.

A good place to start in optimizing water usage in the Middle East would be to bring the issue into the open and secure supplies of "virtual water" through optimal food supply on the international market at the least cost for the countries of the region. A second priority is to manage the demand for water and re-allocate it to the most profitable uses through adequate pricing policies. The third priority is to use it more efficiently by

improving irrigation techniques and practices, reducing waste, protecting water resources from pollution and re-using well-treated waste water.

Such policies involve strategic shifts in water usage from low value, intensive water-consuming crops, which bring poor economic return, to policies, which meet the increasing demand for the people, industry and services, but are less water consuming. Some governments have proved very reluctant to handle the politics and potential social implications associated with such reallocation. It is understandable that the political economy of water is complex and sensitive. But, given the political and economic importance of water, there is an urgent need for a debate on water resources management and policies that optimize water utilization.

For this debate to be successful, it should be well framed, evidence-based and highly participatory. Derived policies and implementation processes and pace will need to be contextual, depending on each country's situation. The anticipated dramatic paradigm shift to counter the looming water crisis in the region will benefit from the wealth of knowledge accumulated on strategic management of water resources. This is why it is necessary to engage in this debate, devise new policies and initiate the new shift to offset the high cost of further delays.

As one example of how desolate conditions are likely to be in a few decades, recent statistics show that worldwide the average water availability per person is close to 7,000 cubic meters per person per year, whereas in the MENA region, only around 1,200 cubic meters per person per year is available. Moreover, with the growing population and climate change, per capita availability is expected to halve by 2050.

On the regional front, water's growing role in the emerging hydro-politics of the region has stressed the need for a new approach to allocate and safeguard this diminishing resource. The integration of water into regional strategic integration cooperation frameworks becoming visible among regional states could facilitate water-sharing management, protection, and preservation of water resources. This interaction could eventually pave the way for the long-term security of Middle East water. In light of the formidable barriers that have prevented agreements to date, such an approach may represent the only method by which to turn back the tide of the new water politics of the Middle East.

**Hedi Larbi**  
Director  
Middle East Department

# New Vice President Unveils Her Agenda in MENA

Shamshad Akhtar assumed her post as the World Bank's Vice President for the Middle East and North Africa on July 7, 2009. Dr. Akhtar, a Pakistani national, brings with her a rich experience in social development, economic policies and public finance – Highly welcome resources in a turbulent region that is grappling with reforms on all levels. In this comprehensive interview, Dr. Akhtar explains her vision for development in the region and the priorities of her tenure.

**Q: How has the global financial crisis impacted reforms in MENA?**

**A:** The crisis has underscored the urgency for all countries, including MENA, to focus and augment the economic and sector reform to accelerate economic recovery, while maintaining macroeconomic stability. Reforms are also critical to mitigate the social consequences of the global financial and economic crisis. Policy makers are faced with difficult choices. While there is a need in most cases to stimulate economies, this has to be coordinated effectively in line with the available fiscal resources that are impacted by the slowdown in economic activity. Policy tradeoffs are complex, but the need to revive economies is imperative and this requires accelerating the pace of economic reforms, while avoiding protectionist tendencies. It is encouraging to note that a number of MENA countries have indeed seized this opportunity and are launching a range of economic reforms. Diversified countries with strong trade and tourism linkages with Europe and OECD (Organization for Economic Cooperation Development), such as Morocco, Tunisia and Egypt are good examples that are launching quite broad based reforms.

**AWI represents a process by which we and our partners identify ways where 'collective action' on economic policies, trade, infrastructure investments or financial intermediation, can bring gains to all. At this time, we are directing the focus of AWI to promote regional economic integration**

**Q: What else can be done to mitigate the impact of the global recession on MENA?**

**A:** More needs to be done. First, the global financial crisis may actually be an opportunity to identify the shortcoming of, and reforms to, targeted safety net programs and other social programs in order to free up resources for the poor and the vulnerable. Also, as countries put in place these necessary stimulus packages, there must be a judicious balance between short-term financial stability and long-term growth. As such, investment spending must continue, and hard choices towards sustainable growth and jobs in the long-term must continue to be made. Of course, coordination among MENA countries remains as important as ever, particularly in this period of global downturn, to ensure that the initiatives taken in individual countries are mutually reinforcing.

**Q: You have placed a lot of emphasis on the Arab World Initiative. What is its value added and what is the Bank planning to do differently under this initiative?**

**A:** This is indeed my highest regional priority, only insofar as regional economic integration represents a massive growth potential for the region, and one that has been tapped in a limited way to date. In other words, it is extremely important to the World Bank because it is extremely important for future growth and jobs for the region's youth. We will of course continue to work bilaterally with each of our client countries to support their growth strategies, both financially and technically.

But this AWI represents a process by which we and our partners identify ways where 'collective action' on economic policies, trade, infrastructure investments or financial intermediation, can bring gains to all. At this time, we are directing the focus of AWI to promote regional economic integration.

This is due to the relatively small size of several MENA countries, and the need for integration to widen the market for potential investors and firms. Economic integration also reduces the

# Interview



*Dr. Shamshad Akhtar*

financial and time costs of trade between the countries. Within this context, we are looking at three pillars to govern our work:

- Regional projects. We will work with our partners to identify projects that can be handled on a regional scale, including infrastructure, trade facilitation, financial sector and support to Small and Medium Enterprises (SMEs), and environmental issues. We hope to have at least one regional project identified and advanced within the next year or so, and a pipeline of other projects soon afterwards.
- Harmonization and standardization of approaches: The adoption of standard regulations, procedures and standards greatly reduce the costs of trade among MENA countries (e.g., customs, freight forwarding, transit policies, etc), and facilitate the movement of goods, finances and people. The Bank Group will support regional approaches to public goods (such as environmental management); harmonization of standards and regulations.
- Knowledge and Capacity Building: At least one region-wide knowledge product will be prepared every year over the next 3 years, possibly a regional training hub to support the other pillars in this initiative.

## Biography

Prior to becoming a Vice President of the Middle East and North Africa Region in the World Bank, Dr. Shamshad Akhtar served as Governor of the State Bank of Pakistan (2006-2009) – a Federal Ministerial level ranking. Dr. Akhtar, was the first woman and the 14th Governor of the State Bank since its inception in July, 1948. During this period, she was Pakistan's Governor at the International Monetary Fund.

Dr. Akhtar began her career in the Asian Development Bank (ADB) in 1990 as a Senior and Principal Financial Sector Specialist. She became a Manager in 1998, and from 1998-2002 she was Director of ADB's (ADB) Governance, Finance and Trade Division. In 2004, Dr. Akhtar became the Director General of the Southeast Asia Department of the ADB. In 2006 and 2007 she was nominated Asia's Best Central Bank Governor by Emerging Markets and the Banker's Trust.

Dr. Akhtar worked as an Economist at the World Bank's Resident Mission in Islamabad, Pakistan from 1980-1990. She also worked briefly with the Planning Offices of both the Federal and Sindh Governments. Dr. Akhtar has contributed to the development of diversification of financial markets including the analysis of monetary policy and state of banking industry (at the World Bank) and restructuring of the Securities & Exchange Commission, Insurance Commission and worked closely with the private sector including the stock exchanges of Pakistan. She has been advising the central banks on reforms of financial markets and she has been dealing with the banking sector's legal, regulatory and institutional reforms, while advising on diversification of the industry to exploit long term funding through development of bond market.

Dr. Akhtar graduated from the University of Punjab with a B.A. Economics degree in 1974. She has a M.Sc. in Economics from the Quaid-e-Azam University, Islamabad; as well as M.A. in Development Economics from the University of Sussex (1977). She holds a Ph.D. in Economics from Britain's Paisley College

**Q: The AWI initiative has been discussed for two years, is there any tangible progress?**

**A:** Actually, there has been significant progress.

First, the MENA region has been involved in a process of economic integration for some time now. The GCC is now a full-fledged Common Market. The Maghreb Countries have quite an elabo-

rate trade network. Significant initial investments in trade and transport infrastructure in the Mashreq have been made. Now, it's time to pull this all together.

Second, in terms of World Bank activities relating to the Arab World Initiative, we have been in consultations with senior policy makers across MENA and have generated a high sense of enthusiasm for collective economic action; and since last year, the AWI has been an effective vehicle supporting:

- Investments in ports, airports, and trade logistics in Egypt, Jordan and Tunisia;
- Assessments of cross-border facilitation and infrastructure across the region (Iraq, Jordan, Lebanon and West Bank and Gaza);
- Assessments of the benefits of energy trade;
- Student loan schemes in West Bank and Gaza and to schools for females in Jordan to promote labor market access for young female graduates;
- Support for the launching of the Arab Water Academy as a platform of knowledge exchange and enhancement of Arab leadership in sustainable resource management; and
- Support for the launching of the Regional Academy for Learning and Leadership in Education in Jordan.

### **Q: Why is Regional Economic Integration important, and what are its prospects?**

**A:** We believe that regional economic integration will help unlock the potential of the Arab World to create opportunities for its growing and young population and to become a key player in the global economic and financial architecture.

Despite good progress in the past two decades, the Arab World's economic growth remains slow compared to dynamic regions such as East Asia and less than the levels required for creating sufficient jobs for an increasing labor force. The Arab World labor force growth averages 3.4 percent a year due to a large number of young people and an increase (from low levels) of female participation; and it is estimated that to provide employment for this burgeoning population of young adults, the region must create 5 million jobs a year over the next 20 years. One important factor that has played a role in holding

## **We believe that regional economic integration will help unlock the potential of the Arab World to create opportunities for its growing and young population and to become a key player in the global economic and financial architecture**

back economic growth in the Arab World is limited economic integration—both with the rest of the world and within the region itself. Arab countries have a diversity of economic conditions and resources; and the experiences of Europe, and more recently Asia, suggest this

diversity is an asset that can boost economic growth and help create opportunities for the citizens of the Arab World.

### **Q: Will the Bank increase its assistance to MENA countries in FY10 and beyond?**

**A:** Indeed lending is expected to rise in FY10 as is the case in other regions. In fact we are expecting IBRD and IDA lending requests from MENA countries to reach US\$6 billion in FY10 -- three times the level of the previous year. We are seeing increased demand for development policy loans to support reform efforts and respond to fiscal deficits that the global crisis has triggered.

During FY09, IBRD lending in MNA rose to US\$1.9 billion. IFC and MIGA were also active with IFC putting on its books \$1.2 billion of new business. In addition, we provided technical assistance and policy advice to many countries.

### **Q: What do you see as the key priorities for the World Bank in the MENA region over the next 2- 3 years?**

**A:** The top priority is to help our clients recover from the impact of the financial crisis and resume economic growth. The emphasis will remain on supporting growth that is both inclusive and sustainable, which means placing job creation and the related private sector development, youth and gender agendas at the center. Another key priority is to support our countries in promoting regional economic integration; that is the Arab World Initiative.

### **Q: The region you cover is fraught with conflict. How do you see this instability impacting the Middle East's prospects for growth?**

**A:** The short answer is that the conflict-growth cycle is complex. On the one hand, conflict seriously cripples the prospects for prosperity and growth. On the other hand, sustainable and



inclusive growth is a determinant of whether a country will emerge from and remain out of conflict. Ultimately, we are a development institution, and have an over-riding goal of alleviating poverty, but one cannot fully address the needs of the poor if recurrent conflicts prevent the delivery of development assistance and capacity building efforts.

**On the Palestinian-Israeli conflict.** I have just returned from the Ad Hoc Liaison Meeting on the West Bank and Gaza on the sidelines of the UN General Assembly. The Palestinian Authority and the State of Israel

were there and the discussions focused on the current security and development challenges in the Palestinian Territories. The emerging consensus is that peace and stability is not a zero sum game. All parties benefit from it, including the international community, and must therefore invest in it.

**Our work in conflict-affected countries is based on one premise, while inclusive economic opportunities do not guarantee peace and stability, the inverse is true: poverty fuels conflict**

**In Iraq,** we have provided about US\$1 billion from our own resources and other donor resources that we manage (IRFFI) to support reconstruction and development there. The Bank's overarching objective is to help the Iraqis use their own resources more effectively to support private sector-led growth and deliver basic services. That is why our portfolio of investments

targets infrastructure, education, health, transport and electricity. All of these projects are implemented by Iraqi institutions, with which we work closely and provide technical assistance to on a wide range of issues.

Our work in conflict-affected countries is based on one premise, while inclusive economic opportunities do not guarantee peace and stability, the inverse is true: poverty fuels conflict.

# Water in the Mashreq: Managing Scarcity Challenges and Priorities for Consistent Policy Action

- by Claire A. Kfoury<sup>1</sup>

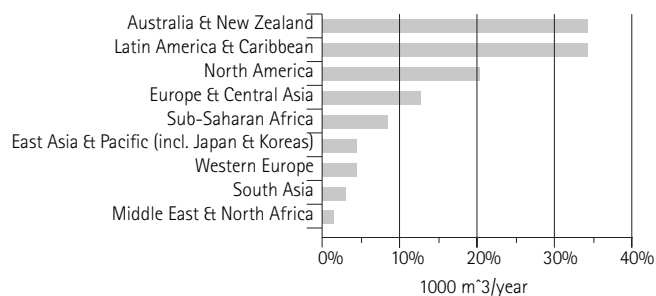


In 2008, the citizens of Lebanon spent over US\$308 million (1.3% of GDP) on private tankers and water bottles. Lagging sanitation in Iran incurred 2.2% of GDP<sup>2</sup> in costs of environmental degradation. Syria's dependency on transboundary water sources remained highest of the Mashreq region at 80%. Jordan, grappling with severe water scarcity, continued to consider the mega Red Sea – Dead Sea Project with its riparian neighbors and Iraq still has to rebuild water supply, sanitation and irrigation infrastructure and institutions.

Several millennia of experience, a rich history of innovation in managing scarce water resources and heavy investments in infrastructure have placed the Mashreq<sup>3</sup> region in the vanguard of some of the most advanced water management techniques. These include constructing dams under conditions of high seismic risk in Iran, reusing treated wastewater in Jordan and managing complex irrigation and drainage networks in Iraq and Syria as only some examples.

Today however, Mashreq nations face the challenge of managing water scarcity in an environment of fast and perpetual change - changing political economies, increasing urban populations and now science confirms, a rapidly changing climate, with serious impacts on available water resources. Moreover, with the regional population expected to grow from around 193 million today to around 320 million in 2025, per capita water availability is expected to halve by 2050<sup>4</sup>.

Figure 1. Annual renewable water resources per capita



<sup>1</sup> Claire Kfoury is a Water and Sanitation Specialist in the Middle East and North Africa Region of the World Bank in Washington, DC.

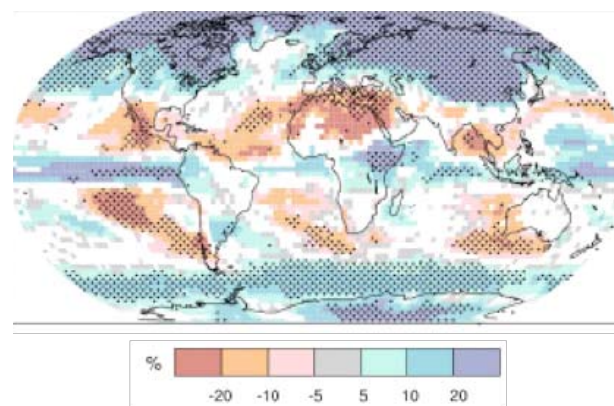
<sup>2</sup> Public Expenditure Review of Lebanon Water Sector, World Bank, 2009

<sup>3</sup> In World Bank operations, the Mashreq Region refers to Lebanon, Jordan, Syria, Iraq and Iran

<sup>4</sup> Making the Most of Scarcity, World Bank, 2007

The competing demands for water and the implementation of new, forward-facing initiatives for strategic action, both described in further detail below, are an opportunity for the Mashreq region to continue to lead in mitigating and adapting to the consequences of living in the most arid and water scarce region of the world. (See figures 1 & 2)

Figure 2. Projected Percent Decreases in Runoff, IPCC 2007



## Competing Demands For Water:

### Water for Food

With precipitation averaging less than 250 mm per year, the subsequent natural limitations to rainfed agriculture have rendered Arab nations (including those of the Mashreq) the largest worldwide net importers of cereals (58.7 million metric tons in 2007<sup>5</sup>). Furthermore, over 50% of all food calories consumed in the Arab world are also imported.

Heavy dependence on food imports and international commodity markets has naturally raised concerns about food security, measured by price and availability of supply. Five exporters (Argentina, Australia, Canada, the EU, and the United States) supply 73% of the world's traded cereals<sup>6</sup> making access to imported cereal heavily dependent on events in these countries and on Arab countries' relationships with them and their allies.

The need to mitigate food security risks, support rural communities and manage urban migration has consequently shaped Mashreq countries' water policies to heavily support the irrigated agriculture sector. Iran alone for example, has the world's fifth largest expanse of irrigated land, and has water stored in reservoirs to irrigate significantly more<sup>7</sup>.

<sup>5</sup> Improving Food Security in Arab Countries, World Bank, 2009

<sup>6</sup> FAO, 2008

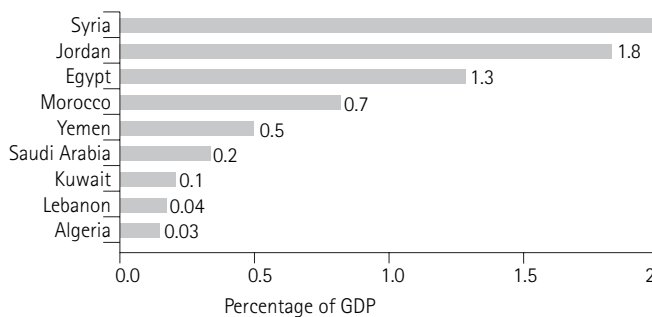
<sup>7</sup> Making the Most of Scarcity, World Bank, 2007

# The Middle East



Irrigated agriculture today consumes over 83% of the region's water resources but remains the sector with the lowest economic returns to water use and only modest contributions to GDP. In Jordan for example, the economic returns to water use in industrial and urban domestic use are respectively 60 times and 6 times higher than irrigated agriculture<sup>8</sup>.

Figure 3: Food subsidies as a share of GDP (World Bank 2008)



Furthermore, irrigation infrastructure in many Mashreq countries is plagued by high inefficiencies with large percentages of input water lost to evaporation (up to 50%) and leakage from the supply networks and/or field plots.



Ancient Waterwheels and aqueducts used for irrigation in Hama, Syria

Despite the sector's technical and institutional weaknesses and high demand for water reallocation from municipal and industrial users, agriculture nonetheless remains a large employer in rural areas with a strong social dimension that makes reforms both in agriculture and water supply and sanitation slow, politically uncertain and even risky.

Growing populations and impending climate change will inevitably reduce the amount of water available to agriculture. Farmers will either be forced to adapt when their aquifers be-

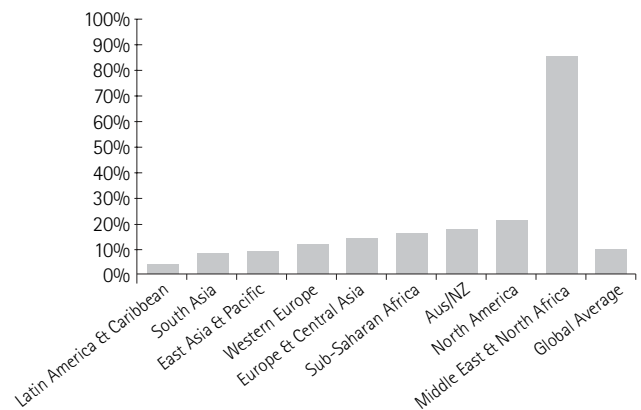
<sup>8</sup> Shiffler, 1998

come exhausted or surface water too unreliable. Alternatively, the transition can be managed, and mitigated to some extent by policies to increase water productivity, increase investments in modernized irrigation systems, encourage a shift to high value-added, and less water-intensive crops, invest in the use of non-conventional water resources in addition to an overall enhancement of knowledge on available resources for more realistic and sustainable hydrological planning.

## Water For People

In response to the temporal and spatial variation in regional precipitation and dependence on transboundary waters, most Mashreq countries have developed major networks of water storage infrastructure, which helps minimize supply risks, smooth inter-seasonal supply and reduce flood risks.

Figure 4: Proportion of Regional Freshwater Resources Stored in Reservoirs (World Bank, 2007)



Water supply and sanitation infrastructure is also relatively widespread in the region. According to official data, 87% of the region's population now has access to improved water sources and three-quarters have access to improved sanitation<sup>9</sup>. It is also important to note that although rates of coverage are relatively high, continuity of water supply is low and can reach as little as 3 hours per day in Beirut and Amman in summer months for example.

Sanitation investments have typically lagged about a decade behind water supply. Furthermore, as in most parts of the world, service in rural communities is lower than in urban areas, with rural connection rates to water and sanitation at 77% and 70% respectively.

Over the past few decades, several countries in the region have focused on improving not only coverage but also the quality

<sup>9</sup> World Development Indicators, 2005

of water supply and sanitation services. While the majority of utilities in the region suffer from problems such as high rates of non-revenue water (averaging 42%) unclear lines of responsibility for operations, low tariffs, difficulties retaining qualified personnel, and political interference in staffing policies and other aspects of operations, some countries have tested various institutional models such as the management contract for the City of Tripoli in the North Lebanon Water Authority and the successful Build-Operate-Transfer (BOT) contract in force for the Asamra wastewater treatment in Jordan.

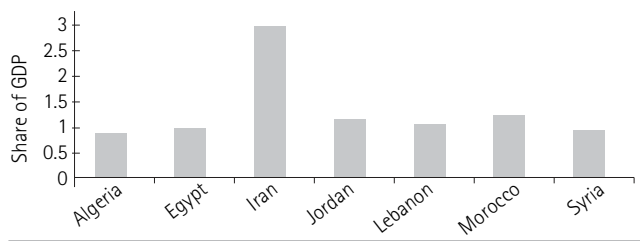
Most regional utilities however operate with weak incentives for improving organizational performance and therefore deliver relatively poor quality services<sup>10</sup>. Most are dependent on direct or indirect government support to finance their investments and operations and maintenance. This inability to generate cash flow from the water service business largely results from political reluctance to raise water tariffs which in turn does not tend to empower water utilities to deliver high quality, cost-effective services.

### Water for the Environment

Insufficient sanitation infrastructure to collect and treat wastewater in many countries of the region has led to the contamination of surface and groundwater, with negative impacts on the environment and public health. The cost of environmental degradation in Lebanon in 2000 for example was calculated to be in the range of 2.8-4.0% of GDP, with a mean estimate of 3.4%. This is substantial and on the order of 1.5 times higher than in high income countries<sup>11</sup>.

In general, environmental degradation in the Mashreq can be principally attributed to: (i) lack of safe water and sanitation facilities and inadequate hygiene; (ii) substantial negative impacts on health from air pollution; (iii) productivity losses associated with soil degradation; and (iv) significant coastal zone degradation.

Figure 5. Cost of Environmental Degradation



<sup>10</sup> *Making the Most of Scarcity*, World Bank, 2007

<sup>11</sup> *Cost of Environmental Degradation, the Case of Lebanon and Tunisia*, the World Bank, 2004



Yammouneh lake, Bekaa Valley, Lebanon

Courtesy of CDR

### Water for All

Of all of the roles that water in the Mashreq region plays, perhaps the most notorious is its role as catalyst of tension over riparian rights.

Table 1. Riparian Agreements in Mashreq (Hadadin, 2008)

| Water conflict  | Issue                                | Countries involved        | Outcome  |
|-----------------|--------------------------------------|---------------------------|--|
| River Tigris    | Irrigation in Syria                  | Syria, Iraq, Turkey       | N/A  |
| Shatt al Arab   | Boundaries                           | Iran, Iraq                | N/A  |
| River Euphrates | Irrigation, urban and industrial use | Syria, Iraq               | Share Waters 42:58   |
| River Orontes   | Irrigation                           | Syria, Lebanon and Turkey | Lebanon (80mcm), Syria (430 mcm). irrigation in Turkey   |
| River Jordan    | Irrigation, urban and industrial use | Jordan, Syria             | Syria (flow from springs above 250 meters) Jordan (Maqarin dam flows with 70% of power generated allocated to Syria) |

With the exception of Lebanon and Iran, most countries of the Mashreq, depend in large part on surface and ground water sources that originate in neighboring countries. Pertinent examples, tabulated in Table 1 below include Syria and Iraq's delicate relationship with Turkey over the Tigris and Euphrates Rivers and the sharing of the Disi Aquifer between Jordan and the Kingdom of Saudi Arabia.



*Kaboudwal Waterfall, Golestan Province, Northern Iran.*

## Initiatives For Action

The following recommendations further develop specific and immediate actions that Mashreq countries can take to expedite the process of sustainably adapting to water stress and mitigating extreme water scarcity in the future, given the competing demands for water described above:

- **Optimize Existing Water Resources**

As previously mentioned, unaccounted for water<sup>12</sup> in urban water supply across the Mashreq region averages at 40%. This means that for every 1,000 m<sup>3</sup> of water treated and distributed into the water supply network for consumption for example, 400 m<sup>3</sup> either (i) leak out of the network<sup>13</sup> and/or (ii) are not billed to consumers. Similarly, water losses in irrigation are estimated to reach as much as 50% due to inefficiency and evaporation.

Managing the demand for water and the way in which it is used, both in urban services and agriculture, is thus the first step to rationalize and control use, reduce waste and increase efficiency and equity in view of limited supplies. This is achieved through a combination of technical, economic, legislative and institutional tools:

### Urban Demand Management

First, Mashreq countries must aim to increase the financial and technical capacity of water utilities to efficiently

<sup>12</sup> *Unaccounted for water is defined as the percentage of total water produced which is lost to the network in leakages or which is not billed to end users.*

<sup>13</sup> *It is important to note that the high technical losses of 400 m<sup>3</sup> are equivalent to the water consumed daily by 3,330 people (Assuming 120L/capita/day consumption)*

operate and maintain water treatment and wastewater facilities. To do so, it is essential to ensure that water utilities operate in an environment that allows them: (i) to recover operation and maintenance costs by collecting adequate tariffs (ii) recruit and retain adequate numbers of technically qualified staff<sup>14</sup> (iii) reduce technical and financial losses by installing meters, making collections and repairing leaks and (iv) outsource to the private sector where required using tools such as output based aid (OBA<sup>15</sup> – See Box 1) to incentivize improvements in urban and rural access to services.

## Water utilities and output based aid (OBA)

OBA is a successful method to change the way external financing is provided to service providers in water sector. OBA consists of providing subsidies based on outputs effectively delivered by a service provider rather than upfront input subsidies. The advantages of such a methodology are stronger incentives given to the provider to actually deliver the service. It also allows the mobilizing of private sector financing up-front, which can be very useful when there are constraints on public financing.

OBA methods can be applied in various ways, including to provide subsidies for new connections (coverage extension) or to provide consumption-based subsidies to cover the gap between cost recovering and social tariffs. However, output based subsidies for new water connections or sanitation facilities are the most commonly used; they have been used in Paraguay and Cambodia and are currently being tested in Morocco.

### Irrigation Demand Management

In parallel, to manage demand in irrigation, Mashreq countries must engage in implementing the following priority actions:

- Implement water pricing policies that reflect the scarcity of irrigation water;
- Establish water markets to allocate water efficiently
- Encourage water-saving technologies including drip and sprinkler irrigation systems
- Promote the shift to high-value and less water-intensive crops
- Encourage the establishment of water user associations.

In addition, from a legislative and institutional perspective, Mashreq countries would benefit from further exploring the various roles and functions of water regulation frame-

<sup>14</sup> *International standard to be 3 staff per 1000 connections*

<sup>15</sup> *Taking account of the poor in water regulation, World Bank 2006*

works, which to date are limited in the region<sup>16</sup>.

- **Invest in New Water Resources**

- **Reuse of Treated Wastewater and Drainage Water**

Despite the perceived potential advantages for a region ranked as the most water-scarce in the world, the spread of treated wastewater reuse across Mashreq countries is surprisingly uneven and slow. This is namely due to (i) Insufficiency of economic analysis on the costs and benefits of reuse (ii) Relatively high cost of wastewater treatment and conveyance (iii) Pricing of irrigation water that does not adequately reflect its scarcity value (iv) Technical and social issues affecting the demand for reclaimed water and (v) Difficulty in creating financial incentives for safe and efficient water reuse<sup>17</sup>.

The reuse of treated wastewater and agricultural drainage water are nonetheless critical components of a sustainable water balance in the Mashreq region. Reuse can limit or eliminate effluent discharges while generating an alternate resource rich in nutrients, thereby indirectly allowing the preservation of fresh water resources for higher quality uses such as potable water supply, and postponing potentially more costly water supply approaches (storage, transfer, or desalination schemes).



Yammouneh irrigation project, Bekaa Valley, Lebanon

<sup>16</sup> Regulation consists of ensuring that water service providers comply with existing rules with respect to tariffs or quality standards and adapting those rules to cope with unforeseen events. The objective of regulation is that those services be provided in an efficient, fair, and sustainable manner, while bearing in mind social priorities set out by the policy makers (both at national and local government levels).

<sup>17</sup> Kfoury et al, *Water Reuse in the MENA Region*, 2008.

### Box 2: Calculations of Water and Nutrient Benefits of Reuse in Agriculture (WHO 2006 and Pescod 1992).

As an example, a city with a population of 500,000 and water consumption of 200 l/day per person would produce approximately 85,000 m<sup>3</sup>/day of wastewater, assuming 85% inflow to the public sewerage system. If treated wastewater effluent is used in carefully controlled irrigation at an application rate of 5,000 m<sup>3</sup>/ha per year, an area of some 6,000 ha could be irrigated.

In addition to the economic benefit of the water, the fertilizer value of the effluent is of importance. With typical concentrations of nutrients in treated wastewater effluent from conventional sewage treatment processes as follows:

**Nitrogen: 50 mg/L**

**Phosphorus: 10 mg/L**

**Potassium: 150 kg/ha per year**

And assuming an application rate of 5,000 m<sup>3</sup>/ha per year, the fertilizer contribution of the effluent would be:

**Nitrogen: 250 kg/ha per year**

**Phosphorus: 50 kg/ha per year**

**Potassium: 150 kg/ha per year**

Thus, all of the nitrogen, phosphorus and potassium normally required for agricultural crop production would be supplied by the effluent.

### Artificial Groundwater Recharge

Although not a source of "new" water per se, artificial groundwater recharge or aquifer storage and recovery (ASR) provides a cost-efficient and technically proven means by which water can be stored underground for retrieval and use in subsequent dry periods. Artificial groundwater recharge also provides significant cost-savings compared to surface water storage and allows for reduced reliance on vulnerable and costly surface water reservoirs. This technique has been very successfully applied in the United Arab Emirates and can be considered as an additional source of supplemental water.

- **Inform Decisions with Sound Data**

Providing reliable information on the many issues related to water management remains a challenge in the Mashreq region namely due to the costs of data collection and analysis and the absence of thorough data management systems. To this end, it becomes necessary for Mashreq countries to engage in solid data collection and management practices to ensure that water man-



agement decisions, within any given sector, are based on true depictions of actual water situations and scientifically sound predictions for the future.

In addition to notable efforts by regional institutions<sup>18</sup> and academic centers to collect and document relevant water data, it is important to note the ongoing collaboration between countries of the Mashreq, NASA and the World Bank to develop an Arab-region specific water management software. When completed in Fall 2010, this software will use NASA satellite data, surface observations and publically-available meteorological analyses to:

- Improve water managers' ability to monitor changes in water availability, including surface and groundwater storage, river runoff, and related land use changes (vegetation, cropped areas) retrospectively and in near real-time;
- Provide a tool for predicting the regional hydrological impacts of climate change scenarios; and
- Provide a platform for cooperation and data sharing among nations. Specific applications would include coordinated management of transboundary water resources, estimating the recharge rates of oversubscribed shared aquifers, and optimizing the response to drought and floods on the regional scale.

The results are unique in that they use primarily satellite-derived datasets in order to generate water balance estimates, do not depend on ground based data and thus are not similarly limited by human and technical resources, geographic constraints and political boundaries.

#### • Strengthen the Capacity of Water Managers

Successful water management requires the integration of a diverse range of stakeholders from farmers, slum dwellers, other civil society, media, and political leaders to civil servants, planners, economists, and engineers. Key stakeholders need to debate and discuss the practice gap, and reach a common appreciation of what is required for long-term sustainability in water outcomes. This consensus requires appreciating the human, financial, environmental, and technological aspects of water management through the systematic engagement of stakeholders in learning about water management.

The Arab countries have thus established an Arab Water Academy ([www.awacademy.ae](http://www.awacademy.ae)) in Abu Dhabi in 2008, so that such learning events are organized and a new genre of "water managers" and water stewards are created from different disciplines and representing all sections of society. Courses are currently being offered on water diplomacy, water governance, wastewater reuse and water utility management in the current year. Having water managers from the Mashreq countries participate in these courses could build a common appreciation of the impending risks.



*Outdated irrigation techniques in Wadi Kharz, Muthanna Province, Iraq*

#### Conclusion

Mashreq countries have managed their water with efficiency and equity in the past, and whilst the scales and dynamics of today's challenges are large and fast, there are many examples of success that give hope for the future. Bridging those gaps and moving beyond "business as usual" to an understanding of water through multiple lenses will help countries of the region manage scarcity, better adapt to climate change and ensure water security for their people. It is time for policy decisions and actions on the ground.

<sup>18</sup> Including International Center for Agricultural Research in the Dry Areas (ICARDA) in Aleppo, Syria, The Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD) in Damascus, Syria, the American University of Beirut in Lebanon among many others.

# Lebanon

## Lebanese Economy Beats Global Crisis With Strong Performance

- by Sebnem Akkaya<sup>1</sup>



**L**ebanon's financial sector prospered in 2009 despite the global financial turmoil. Deposits and reserves have risen sharply. The money supply increased by US\$6.0 billion (19 percent of GDP) over the first half of 2009 (H1-09) of which US\$4.2 billion were registered in the second quarter (Q2-09) of the year. Gross reserves of the Central Bank - Banque du Liban (BDL) - continued to accumulate both due to large foreign inflows and a shift by depositors from dollars into the local currency because of a high interest rate gap. The dollarization rate declined to 67 percent of deposits by June-2009 from 70 percent at end-2008 (and 77 percent at end-2007). Gross reserves reached US\$20.6 billion in H1-09 (up from US\$17.1 billion at end-2008). Lending to the private sector remained strong during H1-09.

The global economic slowdown has had a mild impact on the economy. BdL has revised real GDP growth projections for 2009 to 6 percent—up from 3 percent projected earlier by the Ministry of Finance. This improvement reflects the continuing strength of foreign capital flows and domestic private investment. Macroeconomic variables such as inflation and the current account deficit (CAD) are also improving, mostly because of lower oil and food prices and a decrease in imports associated with relatively slower growth in 2009 (6 percent) compared to 2008 (8.5 percent).

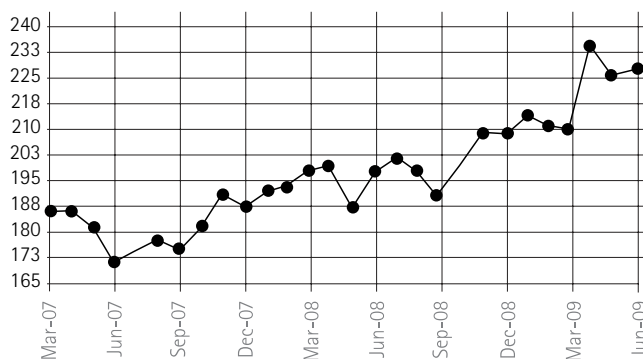
However, Lebanon remains vulnerable to external shocks and has limited fiscal space. The CAD hit a record high 20 percent of GDP in 2008 and is expected to remain high above 10 percent of GDP in 2009. The fiscal deficit is also expected to remain high, continuing to feed a very high public debt (160 percent of GDP in 2008) and interest payments on public debt absorbing 50 percent of government revenues.

### Real Sector Developments

Strong regional demand for Lebanon's services and large inflows of capital contributed to strong economic performance in the first half of the year (H1-09). The Coincident Indicator of BdL, which is a proxy for overall economic activity, increased by 13.8 percent in H1-09 compared to an 8.8 percent increase in H1-08 (see Figure 1). Services exports remained dynamic and passenger arrivals at Beirut International Airport increased by 32.6 percent in H1-09. Investments in the real estate sector remained strong, with cement deliveries rising by 19.8 percent during this period. In sum, economic activity is expected to remain robust in 2009 and BdL's latest projections put expected GDP growth at 6.0 per-

cent for 2009, up from the 3 percent projected earlier in the year. Unlike 2008, growth in 2009 is not based on a real estate bubble: indeed real estate registration fees declined by 3.4 percent in H1-09, after registering 70.3 percent growth in H1-08.

Figure 1. BdL Coincident indicator



Source: Central Bank of Lebanon (BdL).

Inflation decelerated in the first half of 2009, following the drop in international prices. Inflation as measured by the Consumer Price Index (CPI) increased by 2.9 percent in H1-09 (year-on-year). The deceleration of prices was particularly prominent in April-May when taken together the CPI increased by only 1.9 percent on average. Since then, inflation has picked-up, reaching 3.3 percent in June, as the tourism sector entered into a boom season. The slowdown of the CPI in 2009 mainly reflects the decline of international oil and food prices. Imported inflation in Lebanon has a strong impact on CPI since imports of goods amount to 40 percent of domestic absorption. Estimations show the prices of imported goods have declined by 18.4 percent in H1-09 compared to H1-08. It should be noted that the CPI index does not directly reflect trends in real estate prices, which remained stable in 2009 due to continuous capital inflows and persistent demand in the sector.

### Fiscal Developments

The fiscal balance deteriorated slightly in the first half of 2009. The fiscal deficit (including grants) increased to US\$1.56 billion in H1-09, up from US\$1.32 billion in H1-08 (See Figure 2); similarly, the primary surplus was lower at US\$389 million in H1-09, compared to a US\$429 million surplus in H1-08. This outcome reflects the offsetting effects of an increase in expenditures by 21.9<sup>2</sup> percent (compared to 13.3 percent in 2008) and in revenues by 23.4 percent (compared to 15.6 percent in 2008).

<sup>1</sup> Lead Economist, Middle East and North Africa.

<sup>2</sup> Inclusive of spending from foreign loans on investment projects.



Among the drivers of rising expenditures are: (i) the transfers to the electricity authority, Electricité du Liban (EdL), which increased by 27.2 percent (y-o-y)—although international oil prices declined, transfers to EdL have started reflecting this trend only in April 2009, as the government is paying oil contracts with a six months delay; and (ii) the rising primary expenditures (excluding transfers to EdL), which increased by 28.3 percent. This increase largely reflects the higher salaries and wages (retroactive from May 1, 2008) along with some non-wage benefits in the public sector which was introduced in response to sharp increase in inflation in 2008<sup>3</sup>. On the revenue side, the most dynamic component was customs and excises which doubled in H1-09 (y-o-y). With the removal of the cap on gasoline prices, collected petroleum tax increased to more than US\$300 million in H1-09 compared to only US\$3.3 million in H1-08.

Debt has increased slightly. Public debt increased by US\$289 million in H1-09 reaching US\$47.29 billion up from US\$47 billion at end-2008 (or around 160 percent of the estimated GDP for 2008). This reflects the Government's decision to close part of the financing requirement by using public sector deposits which declined by US\$1.2 billion during this period. The composition of debt remained stable between end-2008 and June 2009, with the share of debt denominated in LBP at 55 percent of total against 45 percent for debt in foreign currencies. The average interest rate on foreign currency debt increased to 7.36 percent in June 2009, up from 7.21 percent at end-2008. This rise in average interest rate on foreign currency debt is due to the exchange before maturity of US\$1.9 billion worth of debt against new issuances of Eurobonds at higher interest rates<sup>4</sup> in early 2009. Disbursements of Paris III pledges were slower than expected. To date, about 72 percent of the total US\$7.5 billion pledged has been allocated (US\$5.6 billion)<sup>5</sup> and actual disbursements have amounted to US\$3.2 billion<sup>6</sup>.

<sup>3</sup> Salaries were increased by LBP200,000 (US\$133) per month for all public servants, and the daily transportation allowance was increased by LBP2,000 (US\$1.3) per day. Salaries of retirees were increased by LBP150,000 (US\$100) per month. The total cost of these measures to the budget is estimated by the Government at 1 percent of GDP for 2008 and 1.6 for 2009. The Government paid the increase in the last quarter of 2008 together with two retroactive payments. Retroactive payments continued in Q1-09, thus amplifying the increase in wage bill. Indeed, while the overall increase in wage bill was 19.9 percent in H1-09 (y-o-y), this increase was as high as 29.5 percent in Q1-09.

<sup>4</sup> The exchange was done in three issuances: two in US\$ and one in Euro. One issuance in US\$ is maturing in 2012 and has a yield of 7.5 percent. The other issuance in US\$ is maturing in 2017 and has a yield of 9 percent. The issuance in Euro is also maturing in 2017 with a yield of 7.75 percent.

## External Accounts

The decline in international prices of commodities had a positive impact on Lebanon's foreign accounts. The trade-in-goods deficit increased by only 8.8 percent in H1-09 compared to a 34 percent a year earlier. This improvement reflects a deceleration in imports which increased by 7.0 percent in H1-09 (y-o-y) down from 34 percent increase in H1-08, while exports increased by 1.5 percent (33 percent in H1-08). Exports of services continued to improve in 2009 with tourism arrivals to Lebanon increasing by a substantial 32.6 percent in H1-09 (y-o-y). Net foreign inflows of services, transfers, income and capital reached US\$8.2 billion in H1-09 compared to US\$5.7 billion in H1-08. Similarly, change in net foreign assets reached US\$2.1 billion, up from US\$83 million a year earlier.

Large foreign inflows led to a significant increase in the reserves of BdL. Gross foreign currency reserves augmented to US\$20.6 billion at end-June 2009 from US\$17.1 billion at end-2008 (and US\$12.6 billion in June 2008). The coverage of goods imports by gross reserves increased to a record 15.8 months in H1-09 from 10.4 months in H1-08. The dynamic of reserves reflect both higher capital inflows and shift by depositors out of dollars into the local currency because of interest rates advantage. Preliminary figures show that this dynamic continued during the summer with further increase by US\$1.48 billion in gross reserves between end-June and mid-August 2009.

## The Financial Sector

The sector continued to expand despite the international financial crisis and domestic political tensions over the formation of a new Government. Lebanese banks have enlarged their assets base in 2009<sup>7</sup>. BdL had tightly monitored the foreign investments of commercial banks in the past few years to ensure that they were not involved in high risk investments (see Box 1). Broad money supply (M3)<sup>8</sup> increased by 18.8 percent (equivalent to US\$6.0 billion) as of end-June 2009 over end-2008. The most dynamic component of money supply was resident deposits, with those in domestic currency increasing by 17.6 percent and those in foreign currency increasing by 3.9 percent

<sup>5</sup> Out of the allocated amount, about US\$2.1 billion are budget support, US\$1.2 billion project lending, US\$1.4 billion private sector support, and US\$0.3 billion TA/in kind assistance.

<sup>6</sup> Out of the disbursed amount, US\$1.5 billion are loans and grants to the public sector; US\$100 million is project lending, US\$0.3 billion are in kind contributions and US\$0.8 billion are loans to the private sector.

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over December 2008. The financial sector continued to play its role as the major channel for financing the private and the public sectors. Lending to the private sector increased by 6.5 percent (equivalent to US\$1.4 billion). Credit from commercial banks to the Government slightly declined by 0.5 percent (equivalent to US\$136 million). The dynamic of lending to the private sector reflects the sharp increase in Banks' resources as well as improved incentives from BdL to promote lending in local currency.

The rise in the spread between interest rates on domestic currency and foreign currencies led to a sharp decline in dollarization rate. The average interest rate on US dollar deposits declined by 151 basis points (bpt) from 4.69 percent to 3.18 percent between end-2007 and June 2009. This is partly due to the decline in international interest rates (the 3 months Libor declined by 446 bpt over the same period). The average interest rate on Lebanese Pound (LBP) denominated deposits declined by 44 bpt, from 7.40 percent to 6.96 percent during this period, which reflects the comfortable availability of liquidity in domestic currency. Lending rates to the private sector partially reflected the decline in deposit rates: lending rate to the private sector in foreign currencies declined by 78 bpt while lending rates to the private sector in LBP declined by 34 bpt. In the case of loans in LBP, the BdL has taken a series of measures to boost lending to the private sector. These measures extended the subsidy on interest rates<sup>9</sup> and exemptions on compulsory reserves to all kinds of loans denominated in LBP, excluding consumers loans and real estate lending (except those financed through

### Pre-emptive steps taken by the BdL to strengthen regulatory framework

Starting June 2008, the BdL set tighter regulations on asset choices by banks and on risk assessment and monitoring. An example is the Intermediary Circular number 176 (July 8, 2008) that requires banks to secure "the approval of the Central Bank of Lebanon prior to any direct or indirect investment or contribution in any foreign financial institution". The same circular extends the control of BdL over "the investments and contributions done by companies and funds in which the Lebanese Banks own parts and shares of capital". An example of stronger regulations for the domestic market is the Intermediary Circular number 177 (07-21-08) which restricts lending to the construction sector to "60 percent of the value of the project, except for primary residences".

BdL issued four basic Circulars aiming at: (i) compelling each Bank to establish an Internal Audit Committee; (ii) instructing banks to review their capital adequacy in line with Basel-II norms; (iii) regulating credit risk mitigation techniques; and (iv) regulating external audit toward a greater rotation of external auditors. In addition, the BdL also issued intermediary Circulars asking banks to: (i) release to the BdL at higher frequency their operations statements, including on documentary credits operations; (ii) report in more details on their loans portfolio to the Central Office of Credit Risk at BdL; and (iii) increase the reserves for unspecified banking risks. In parallel to strengthen risk control, the BdL has also taken measures to increase Bank's financing to resident private sector in domestic currency.

Government supported housing schemes). Reflecting these developments, the dollarization of deposits has declined to 67 percent by June-2009 from 70 percent at end-2008 and 77 percent at end-2007.

<sup>7</sup> Many Lebanese expatriates and Arab nationals sought safe haven in Lebanese banks after the outbreak of the global financial crisis. One reason behind this confidence in the system is the resilience of Lebanese banks. Indeed, the Lebanese banking system survived highly challenging period over the past few years, including the assassination of former PM Hariri, the war of summer 2006 with Israel, and years of insecurity and political instability. Part of the resilience is explained by the support from international community and some regional actors – e.g. Saudi Arabia deposited US\$1.5 billion at the BdL during the summer 2006 war. The consolidated balance sheet of Lebanese banks was equivalent to 321 percent of GDP at end-2008.

<sup>8</sup> M3 equals money in circulation in Lebanese pounds plus deposits in Lebanese pounds plus deposits in foreign currencies. M3 was equivalent to 254 percent of GDP at end-2008.

<sup>9</sup> Since 2000, the BdL and the Government initiated schemes to promote lending to private sector investment operations. These initiatives include subsidizing interest payments of the borrowers and granting exemptions on compulsory reserves of creditors. Initially focusing on projects in agriculture and industry, these schemes were gradually developed to include other sectors.

# Lebanon

## Moving the Water Agenda Forward

- by Mohammed Benouahi<sup>1</sup>



**L**ebanon has been struggling to reform its Water Supply and Sanitation (WSS) sector, but the progress on that front is strikingly below expectations and the level of economic development in the country. The policy actions needed to improve performance and meet the development needs of the sector are addressed in a recently completed World Bank Public Expenditure Review (PER) for the Lebanon WSS sector. Its findings are elaborated in this article.

**The state of the water supply and sanitation (WSS) sector in Lebanon is not in line with the country's level of economic development,** which is well above comparable countries in the Middle East and North Africa, excluding the Gulf. Lebanon per capita GNI amounted to US\$5,800 in 2007, significantly above Morocco's and Tunisia's levels, respectively US\$2,290 and US\$3,210. The outcomes in the WSS sector are, however, not commensurate to the level of economic development in the country. Despite connection rates within the regional average, continuity of supply is low and sensitive to seasonal fluctuations in rainfall. The situation is particularly severe in the Beirut Mount Lebanon region, where the summertime water supply averages barely three hours per day. Comparable MENA countries such as Tunisia and Morocco have achieved 24/7 water supply continuity in their main cities.

**It is time for Lebanon to push forward the reform agenda to achieve service standards comparable to other MENA countries.** Moving the agenda forward will necessarily require multiple policy levers, given the complex political reality of the country and the multitude of issues affecting the WSS sector. The severe data limitations (with respect to both sector performance and public expenditure trends) add to the challenge. The recently completed WSS PER study sheds light on the key issues faced by the water sector (and to a lesser extent wastewater and irrigation) in Lebanon. The study also identifies the core policy areas where reforms are needed to meet the development objectives of the sector.

### The Institutional Framework

**Law 221/2000 of May 2000 initiated the reform of the WSS sector.** Prior to the enactment of Law 221, WSS service provision was fragmented into 22 Water Boards and 209 Local Committees, with significant scope for efficiency improvements. Law 221 delegated responsibility for the delivery of potable wa-

ter, wastewater and irrigation to four consolidated Regional Water Authorities (RWAs) and a pre-existing river basin agency - Litani River Authority.

**Law 221 has laid the foundation for clear accountability and efficiency improvements in WSS service delivery.** *First*, the law mandates separation between policy-making and service provision, establishing a clear line of accountability between policy-makers and RWAs. *Second*, the law has set in motion the establishment of financially and administrative autonomous RWAs. *Third*, if effectively implemented, the regional consolidation of service provision can lead to efficiency gains (economies of scale) in service provision, to be passed on to end users.

**However, the reform agenda reached an impasse soon after the enactment of the law.** The transfer of functions to the four RWAs has been subject to severe implementation delays. The RWAs have yet to build the capacity to take over the functions bestowed upon them by Law 221, and have very limited enforcement powers (e.g. over bill collection). The Ministry of Electricity and Water (MoEW) still manages some service contracts for the operation and maintenance (O&M) of pumping stations on behalf of the RWAs. Investment planning and execution functions are highly centralized - the Council of Development of Reconstruction (CDR) is the leading sector investment agency in charge of planning and executing donor-funded water and wastewater investments. Wastewater collection - legally under the jurisdiction of the RWAs - is carried out largely by the municipalities and un-regulated small-scale private operators. The discrepancy between legal and de facto responsibilities has created institutional uncertainty, and weakened the accountability line between policy-makers and service providers.

**Several accountability weaknesses emerge from the institutional analysis of the WSS sector.** *First*, the severe delays in the implementation of Law 221 have led to institutional uncertainty over sector responsibilities. *Second*, accountability is weakened by inadequate inter-agency coordination, in particular between the line ministry and the CDR. *Third*, MoEW's regulatory and oversight powers over the WSS sector are de facto very limited. *Finally*, and more importantly, RWAs cannot be held accountable for service provision as they are not empowered to function as autonomous entities.

### The Supply Side

**The RWAs suffer from inadequate technical, financial and commercial performance.** Despite its relative good endowment of water resources, Lebanon faces severe water shortages during

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the dry season (July–October). Unless actions are taken to reform the sector, Lebanon is poised to face chronic water shortages year round by 2020. The weak performance of the RWAs is one of the drivers of the demand–supply imbalance, together with the lack of storage capacity and the growing demand.

### **Public network coverage is relatively high, but continuity of supply is low, and water losses above the optimal level.**

About 78 percent of the Lebanese population is connected to the public water network. Continuity of supply is however low, ranging from 3 to 22 hours of daily water supply during the dry season. Tripoli is the only urban area which benefit from 24 hours of daily water supply as a result of the efficiency improvements delivered by 5-year management contract with a private operator. Water losses are above optimal level, and conservatively estimated at 40 percent country wide.

**The RWAs are not yet performing as financially autonomous entities,** despite the progress made since their establishment. Currently RWAs are able to cover their salary costs and part of their power charges. The MoEW is however indirectly subsidizing O&M costs by managing some service contracts for pumping stations under the jurisdiction of the RWAs. Only the Beirut Mount Lebanon Water Authority fully covers its O&M costs from collected revenues. Collection efficiency in the water sector is on average 70 percent, with significant variation across the RWAs, from 11 to 80 percent.

**Water tariffs are de-linked from both consumer demand and the economic cost of service provision.** Water tariffs are based on a fixed annual fee for a contractual volume of water of 1 m<sup>3</sup>/day. Domestic consumption is not metered, and the actual amount of water delivered to users is below the contracted amount. The current system creates a “double jeopardy” where the tariff system does not provide incentives for demand management, nor does it provide commercial incentives for RWAs to reduce water losses and increase water production.

**The development of the wastewater sector is still at an embryonic stage.** Despite efforts in the recent years to increase the amount of wastewater treatment facilities, there are still few Waste Water Treatment (WWT) plants in operation. Several larger plants have been developed by the CDR, but are not yet operational because of limited capacity and unfinished water supply network. Most of the collected raw wastewater is discharged untreated and no effective measures have been taken to mitigate the environmental costs of delayed action. No tariffs are currently levied for wastewater.

### **Water storage capacity is inadequate to meet water demand.**

Water storage capacity is far below the level of other MENA countries: dam capacity accounts for only 5 percent of total renewable water resources in Lebanon, against 56 percent in Morocco and almost 300 percent in Egypt. The lack of adequate storage capacity is a severe constraint for irrigation, which accounts for more than 60 percent of total water consumption.

### **... and the Demand Side**

#### **Availability, rather than affordability, is the main constraint for consumer welfare in the water sector.**

The rationing of public water supply for domestic consumption has led to significant growth of private sources of water supply. Private water supply accounts for 65 percent of total water expenditure of connected households, and 75 percent if un-connected households are included. The most prominent sources of private water supply are large water bottles (35 percent of total household water expenditure), followed by delivery trucks (21 percent) and small water bottles (16 percent).

**Consumers have no power to choose their preferred level of water consumption or control their water bill.** In the absence of metering, consumers do not have the option to adjust their water consumption in line with their optimal demand. The lack of consumer power is a major deterrent to improvements in sector performance and also raises welfare concerns. The inability to control consumption and the lack of payment options is particularly detrimental to low-income households.

### **Public Expenditure Trends**

#### **Public investment in the WSS sector has been inadequate to meet sector development needs.**

In spite of the recent decline in the debt-to-GDP ratio, public expenditure in infrastructure, including WSS, is constrained by fiscal pressure. Public annual water and wastewater investments amount on average to 0.4 percent of GDP (2008 prices). Annual capital expenditure is below investment requirements, which are estimated at about 0.8 percent of GDP for the average MENA Middle Income Country based on a top-down approach (expected WSS demand of for a given level of economic growth). Small scale private providers have played a major role in filling the “public expenditure gap” in the sector.

#### **CDR accounts for the bulk of investment in the WSS sector.**

Since 1994, CDR has executed the largest share of investment in the water sector (46 percent) followed by the Council of the South and the Central Fund for the Displaced. In the wastewater sector, the entire capital expenditure program has been delivered by CDR. However, CDR is highly dependent on donor



funding for the financing of its investment, and cannot fully control its expenditure patterns. In addition, the lack of a comprehensive capital expenditure plan negatively affects the ability to prioritize projects based on the sector needs.

**The sector's investment absorptive capacity is low.** Absorptive capacity is an important measure of the efficiency of capital execution. Only 55 percent of planned capital expenditure has been executed over the period 1992–2006 in the water sector. The percentage of executed investments is even lower in the wastewater sector (20 percent). The low absorptive capacity is largely due to delays in securing donor funding and project approval, which has led to a backlog of projects in the pipeline.

**The disconnect between capital and maintenance expenditure.** The RWAs are responsible for maintaining the capital investments executed by the CDR. In practice, they are ill-equipped to perform this function, as they are only marginally involved in the execution of the public investments. They have also limited leeway to mobilize additional resources for maintenance through user fees. Given the low capacity of the RWAs, the MoEW continues to be involved.

### The Costs of Inaction

**The total costs of inaction in the water supply sector are estimated at about 1.8 percent of GDP.** Households bear the largest share of the costs: the private opportunity costs of inadequate public water supply amount to 1.3 percent of GDP, equivalent to the domestic expenditure for private water supply. The hidden costs for the Government (i.e. the implicit financial burden associated with water supply sector inefficiency) are conservatively estimated at 0.5 percent of GDP. The cost of inaction is even higher if one adds the cost of health and environmental degradation caused by untreated wastewater discharges. Doing this increases the cost of inaction from 1.8 to 2.8 percent of the GDP.

**Hidden costs in the water sector (0.5 percent of GDP) are above the annual level of investment in the WSS sector** (estimated at 0.4 percent of the GDP, maintenance included). The main source of hidden costs is collection efficiency (45 percent), followed by water losses (40 percent). Cost-recovery tariffs account for the remaining 15 percent of hidden costs.

### The Reform Agenda

**Improving efficiency is a priority to meet sector objectives within a framework of fiscal responsibility.** Efficiency improvements, by reducing hidden costs, can generate sufficient

resources to close the investment gaps in the WSS sector. Improving efficiency calls for a broad range of actions to support (A) investment prioritization, (B) implementation of Law 221, (C) utility management and (D) information management.

### (A) Increasing continuity of water supply to achieve 24/7 provision country-wide is the priority for the water sector.

Projects under preparation that aim at increasing water supply continuity should be prioritized. In the short-term a "targeted investment plan" could be envisaged, focusing on the reduction of water losses through the rehabilitation of water supply networks and installation of meters, and the expansion of treatment and storage facilities to cope with the needs for a 24 hours service.

### (B) Ensuring the effective implementation and update of Law 221 is the entry point for improving sector performance.

The unfinished reform agenda is at the core of poor sector performance. In the short-term, the priority is to start empowering the RWAs to operate as autonomous entities in critical areas, such as the hiring of staff and procurement, and complete the transfer of O&M functions for water supply to the RWAs. In parallel, coordination between the MoEW and the CDR needs to be enhanced to optimize the sequencing of investment. In the medium term, as the autonomy of the RWAs is reinforced, more effective participation of the RWAs in the planning and execution of water supply investments is essential to improve coordination. Increased RWAs' autonomy will also call for strengthening MoEW's role as a sector regulator. In the long-term, there is the need to rationalize investment responsibilities by gradually transferring the execution of capital works to the RWAs under the oversight of the line ministry.

### (C) Institutional reforms need to be complemented by utility management improvements.

Unless clients are empowered to hold RWAs accountable, institutional reforms are unlikely to deliver the expected improvements in service provision. Reinforcing client power requires utility management reforms, first and foremost a country-wide metering program and consumption-based tariffs. In parallel, RWAs should be empowered to enforce bill collection. While in the short-term there may be limited scope for traditional forms of private sector participation in the water sector, partnerships with small-scale domestic private operators can be instrumental to deliver efficiency gains

## Moving the Water Agenda Forward

**(D) Improving the availability of accurate and consistent information is crucial for effective decision-making.** Going forward, good policy formulation and implementation will be challenging without reliable sector statistics and information. The collection and management of data is to be strengthened at both the RWA level, through capacity building programs and the use of improved information systems, and at the central level, as part of MoEW's regulatory functions. A dedicated unit could be created within the MoEW with the objective to collect, update and maintain public expenditure data in the water sector.



Courtesy of CDR

*Afqa spring in upper Jbeil, Lebanon*

# A Milestone for Lebanon: Successful Piloting of the National Poverty Targeting Program



The proxy-means testing (PMT) targeting mechanism, applied to social programs such as cash assistance, energy subsidies, health subsidies, or education support, has proven to be very effective in reducing poverty in many countries around the world. This mechanism defines a metric that ranks households by their welfare based on a number of defined characteristics, for the ultimate purpose of efficiently and transparently identifying the target beneficiaries of different kinds of social assistance programs.

On May 22, 2009, Lebanon crossed a milestone along the road towards owning a targeting mechanism that can be used as a tool by the Government to deliver social transfers and services that improve the living standards of Lebanese households, in particular the poor and vulnerable. At a heavily attended press conference, the Ministry of Social Affairs (MOSA) announced the results of the pilot phase of the Lebanon National Poverty Targeting Program (NPTP), a program which is supported by the World Bank, the Italian Cooperation, and the Canadian CIDA. During the press conference, the success of the pilot phase and the efforts of the team at the MOSA were highly commended. It was acknowledged that Lebanon is truly in need of strengthening its

**Lebanon is truly in need of strengthening its ability to identify and reach the poor and vulnerable in order to increase the impact of social assistance – something which remains weak, and which this program promises to deliver**



*Old man applying for aid with the help of a social worker*

ability to identify and reach the poor and vulnerable in order to increase the impact of social assistance – something which remains weak, and which this program promises to deliver. It is expected that the NPTP, by enabling the targeting of social safety net interventions, will significantly improve their efficiency, effectiveness and poverty impact.

“Our goal is to serve the poorest and most vulnerable, without any other consideration” was the concluding statement of the presentation delivered by the team at the MOSA during the event. The team presented the main results of the pilot phase to a wide audience that included a number of ministers, namely the Minister of Social Affairs, the Minister of Finance, the Minister of Health and the Minister of Education and Higher Education, as well as staff of the different ministers and agencies.

The diverse attendance reflected the significance of the targeting mechanism as a tool for the Lebanese Government as whole, and not only a particular sector

or ministry. The Canadian and Italian Ambassadors and the World Bank Country Director represented their respective development agencies which are involved in the financing of this initiative.

The NPTP Pilot Phase was launched in December 2008, when residents of three areas – Ein El Remmaneh, Chiyah, and Tarik El-Jdideh – were invited to come to their local Social Development Center (SDC) to fill out applications if they were “in need”. Two months later, a total of 6,394 households had applied to the program. In addition to qualifying for the symbolic 50,000 LL which would be distributed to each eligible household, the registrants understood that participating in the program is an opportunity that will enable them to claim and justly receive their rights and privileges from the Government. The staff of the SDCs shared anecdotes of days when the modest capacity of the centers suffered from excess numbers of applicants, to the extent that, at one point, the local police had to interfere to control the crowds. The pilot phase was supported by a visible media campaign which included the circulation of posters, brochures and flyers at strategic locations within the areas, as well as banners on leading roads.

After extending the deadline due to popular demand, applications were closed and 100 trained social inspectors were sent out to conduct household visits. Once all the data was collected, it was entered into a software application developed particularly for this program. Then, using the data collected on each household's characteristics, the proxy-means testing formula that was developed by World Bank experts based on statistical analysis of the 2004 Lebanese household survey, was used to electronically

## A Milestone for Lebanon

rank households according to their level of welfare. Consequently, each household was assigned a score. The cut-off score was set so that the 3,000 lowest scoring households were chosen to be eligible for the token 50,000 L.L, in line with the budget that was allocated by the government to the pilot phase.

Lessons learned from the pilot continue to be uncovered as preparations for the national roll-out of the NPTP are in progress. Applications are planned to open nation-wide mid 2010. It is anticipated that by the end of 2010, Lebanon will own a credible, accurate and reliable, fully automated and live database of about 150,000 Lebanese households that includes the poorest and most vulnerable, enabling an objective assessment of each household's welfare. A total investment of US\$9.3 million has been committed to the national roll-out of the NPTP. US\$1.25 million will be financed by the World Bank, US\$2.6 million by other development partners including the Italian Ministry of Foreign Affairs and the Canadian International Development Agency and another US\$5.5 million will be financed by the government.

The Government has underscored its commitment to the program back in June, when it formally established the NPTP in a decree. The statement announced the Government's adoption of the program as a means to help the poor and vulnerable Lebanese households, while keeping in consideration the need to limit both possible distortions in the beneficiaries' incentives to work and their absolute dependence on Government aid. The Policy Statement also laid out the NPTP institutional arrangements, where the MOSA will continue to assume the responsibility of all data collection processes at the ground level, and a NPTP Central Management Unit (CMU) at the Prime Ministry will house the national database. Management and quality control of the data, monitoring of the database and ranking of households according to their welfare, will fall under the responsibilities of the CMU. Defining the cut-off scores, which determine the beneficiaries of the different social safety net programs, will be based on decisions made by the Council of Ministers, which is ultimately in charge of determining the overall social strategy for Lebanon.

The National Poverty Targeting Program was conceived in the aftermath of the July 2006 war on Lebanon, a time when Lebanon found itself facing severe economic and social difficulties. In addition to making it possible to target government assistance

to the most disadvantaged households, the establishment of the NPTP will help build a relationship of trust between the government and the citizens by strengthening the role of government and its institutions. Today, this program has been successfully piloted and formally adopted through the passing of the NPTP Policy Statement. 'Equality'; 'justice'; 'supporting the neediest'; and 'promoting transparency and objectivity', are the four fundamental principles of the Lebanon National Poverty Targeting Program.

**It is anticipated that by the end of 2010, Lebanon will own a credible, accurate and reliable, fully automated and live database of about 150,000 Lebanese households**



### Khede Kasra: Women Empowerment Campaign Wins Cannes Gold Lion Award

Leo Burnett has won the Cannes 2009 Gold Lion Award for the *Khede Kasra* advertising campaign of the Women Empowerment Program implemented by Hariri Foundation for Sustainable Human Development.

The Program, part of the World Bank-funded Community Development Project, was executed by the Council for Development and Reconstruction. It sought to address the injustice vis-a-vis women in Lebanese Law, raise awareness about women's rights and responsibilities and enforce the role of the media in combating the existing social stereotypes. The program focused on Law and Media as the two primary entry points for changing social attitudes and promoting gender equality.

The program produced three major reports: i) An Analytical Review of Studies on Women and Law and Women and Media; ii) Towards the Empowerment of Women in the Media: To Achieve Equal Opportunities between Men and Women Citizens, and iii) Six Steps Towards Empowerment: An Analysis of Certain Aspects of the Discrimination against Women in Lebanese Law.

The Hariri Foundation for Sustainable Human Development launched the *Khede Kasra* campaign on October 20, 2008, at the end of a joint conference with the World Bank titled "Gender in Economy and Decision-Making," which discussed obstacles to the effective participation of women in decision-making processes and reviewed regional as well as international best practices.

The *Khede Kasra* campaign was designed to address gender inequality in the Lebanese society as well as empowering women. The essence was to tackle the Arabic language in its default male-dominant form of speech. Spoken and written words in the media, which would otherwise be addressed to men by default, were altered with a "kasra" accent, making them addressed to women. With a call for action line that encouraged women to "make your mark," the target audience that included every Lebanese woman from every possible demographic, was inspired by such a simple idea. The meaning behind literally changing the word empowered them to take their fate in their own hands.

The campaign witnessed increased buzz and the heightened interest of reporters. It enjoyed a substantial share of newspaper and magazine coverage with articles appearing in major regional publications. Bloggers online adopted the campaign.



*Minister of Education and Higher Education Bahia Hariri launches Khede Kasra campaign on October 20, 2008*

It became the talk of the town and many adopted the "Khede Kasra" phrase in their everyday conversations. The campaign sparked debates and roundtables about female regulations in the Lebanese judicial system.

To reach the whole country geographically and all women demographically, a moving interactive billboard as well as posters were set up, whilst stickers were distributed, in rural and upscale areas on the streets of Lebanon throughout November 2008, to engage the public and physically get them involved. The campaign also hit the digital circuit, through emails, YouTube and Facebook, reaching the Lebanese internet population, which found the forum an outlet for their opinions. On the occasion of International Women's Day (March 8, 2009), TV personalities were contacted to wear the "kasra" on air and endorse the campaign during that week.

To view the *Khede Kasra* advertisement, visit:  
<http://www.youtube.com/watch?v=CpXzKZhfa8>

# Syria

## Electricity Sector Challenged by Fast Economic Growth

- by Husam Beides<sup>1</sup>



**E**lectricity outages in Syria during this hot summer served as a wakeup call for the Government, which needs to face the increasing demand. The Government has been developing a strategy for improving the overall performance of the electricity sector, but the summer experience and fast economic growth have underscored the urgency of endorsing and implementing the Government's strategy. Moreover, the two daily rolling electricity cuts, each lasting two hours in the Damascus region and probably longer elsewhere, provided clear evidence that the aging electricity system and its operational issues threaten to undermine the competitiveness of Syrian enterprises and the sustainability of economic growth in the country.

### Increasing Demand, Rising Challenges

After years of relative stability the Syrian power sector is now facing a number of major challenges. Firstly, electricity demand has been growing since 2002 at a high rate of about 7% and is expected to continue to grow at an annual rate of 5% or more through 2020. Secondly, because of this growth in demand and lack of investment in new capacity and maintenance, a demand-supply gap has developed and is widening, which leads to frequent load shedding. Thirdly, high technical and non-technical losses equal to about 27% of total demand add to the shortages and have caused the distribution companies to lose about US\$275 million in revenues during 2007 alone. Fourthly, the financial performance of the electricity sector is poor and deteriorating due to these losses and the low level of electricity tariffs, especially in the residential sector.

### Low Tariffs, Inadequate Gas Supplies

Today in Syria, electricity tariffs are set much below the cost recovery level and are amongst the lowest in the MNA region. Tariffs are comparable to those in oil and gas exporting countries such as Algeria, Abu Dhabi (UAE), and Qatar, but significantly lower than the tariffs in regional non-oil rich countries such as Jordan, Tunisia and Morocco. Finally, the lack of reliability of the domestic gas supply to the power sector also has constrained the availability and production levels of existing generation plants. This is also posing risk to eventual development of new least cost gas-fired power plants, and would require Syria to seek long-term gas import contracts from the regional market to supplement its domestic gas supply.

### Government Strategy

At the request of the Government of Syria, a World Bank energy team has worked with Syria's Ministry of Electricity to develop a comprehensive Electricity Sector Strategy Note addressing these challenges. An assessment of the sector's needs showed that about US\$ 11 billion of investments in new generating capacity (7,000 MW) and expansion of the transmission and distribution networks will be required through 2020. The Strategy also recommends options and measures to:

- increase the efficiency of the electric power sector by reducing the large technical and commercial losses in the network;
- increase security of supply further in an environmentally sustainable manner by developing vigorous energy efficiency and renewable energy programs;
- encourage regional energy integration through a series of targeted investments in electric power and natural gas;
- attract private sector investment into generation capacity expansion;
- make the electricity sector financially viable, including through tariff adjustments associated with improvement in social protection programs to vulnerable electricity consumers; and
- introduce electricity sector reforms and associated institutional changes to facilitate implementation of these measures.

The preparation of the Strategy included roundtable discussions among the staff of the Ministry of Electricity and other stakeholders to evaluate the various policy options. The Strategy will be further discussed at the Government level to assess and refine the measures recommended prior to its final adoption by the authorities.

The strategic approach adopted by Syria is commendable. It will enable the Government to develop a comprehensive action plan, whose implementation will address the electricity needs in a cost-effective manner and support the fast growing economy. Introducing the private sector to generation and production will alleviate the burden on public finance and further enhance the sector's performance.

<sup>1</sup>Senior Energy Specialist-The World Bank, MENA

# Education Reform In Syria: Supporting The Transition To A Social Market Economy

- By Haneen Sayed<sup>1</sup>



**A**s part of its transition to a social market economy, Syria committed in the 10th Five Year Plan (FYP) 2006–2010 to reform the education system to align it better with the emerging social and economic realities. The objective of the FYP is to facilitate the transition from a socialist to a market economy. The FYP focuses on enhancing social development including strategies to reduce poverty and decrease unemployment through reforms in the education, health and social protection sectors and a greater role for the private sector.

**Over the past three decades, the education system in Syria achieved major successes in expanding access, combating illiteracy and in producing a workforce for the public sector.** At a rate of 95 percent, Syria's primary net enrollment rate (NER) is higher than the average for the Middle East and North Africa Region (MENA) and for low middle income countries (LMIC). The literacy rate is estimated at 83 percent (2007) which is also higher than the average for MENA and LMIC. The gender gap in enrollment is small.

**Despite the large investments in expanding education coverage, access to schooling remains low at the pre- and post-primary levels** in comparison to countries in the region and other lower-middle income countries. While the enrollment rate at the pre-primary level is generally low in MENA with an average of 16 percent, in Syria it is even lower with only 13 percent of children enrolled. At the secondary education level, Syria experienced a substantial decline in the enrollment rates between 1985 and 2000, the only country besides Iraq. The gross enrollment ratio at the secondary level declined from 58 percent in 1985 to 41 percent in 2000. During the past five years, secondary school enrollments recovered with the gross rate reaching 68 percent, however, Syria is still below the regional average (74 percent) and the average for similar lower income countries (76 percent GER)<sup>2</sup>. At the tertiary level, fewer than half of those obtaining a secondary school degree enter public universities. Latest data from the MOE shows the GER in tertiary education at 17 percent in 2005.

**Over the past three decades, the education system in Syria achieved major successes in expanding access, combating illiteracy and in producing a workforce for the public sector**

**Quality of education in Syria is low compared to the region and LMIC.** International evidence has shown that expansion alone is not sufficient and the impact of human capital on growth will depend on the quality of the education and training system and the resulting quality of human capital. Analysis of Syria's performance in the 2007 TIMSS exam showed significant improvements from the 2003 TIMSS results, though Syria still performed below the international average in math and science (as in other MENA countries). In math, its performance was below the trend line in comparison to its GDP per capita (2003). Other indicators of low quality of education are the high dropout and repetition rates throughout the system, and the large number of under-qualified and under-trained teachers (more than 60% of teachers in Syria are qualified at the 2-year diploma level only, and a substantial number of those who have a 4-year degree have not had any training in teaching).

**Low internal efficiency is a major challenge facing the education system in Syria.** In addition to the high repetition and dropout rates, the student-teacher ratio in Syria is among the lowest in the world and in the region signaling another source of internal inefficiency. The fairly low student-teacher ratio (STR) in general education is due to the relatively high recruitment of teachers in comparison to the growth of students.

The number of teachers grew at an annual rate of 7 percent between 2000 and 2006, almost twice the growth rate for students which resulted in a decline in the STR to 19:1 in basic education and 9:1 in secondary education. While data is not

available to make a direct comparison with basic and secondary education, latest available data on the average STR in primary education shows East Asia and the Pacific at 31:1, and Latin America and the Caribbean 25:1. A low STR could potentially result in more motivated classes with better educational output, however, salaries and incentives to teacher are low in Syria which discourage high performance and result in low teacher productivity. Teacher salaries fall in the lower part of the public sector pay scale and an average teacher received about 80 percent of the salary in a comparable government job. Although salaries in the public sector have increased substantially over the past five years it did not close the gap between the salaries of teachers and those of other public sector jobs that require comparable skills and academic achievement.

<sup>1</sup> Human Development Coordinator for Lebanon, Syria and Jordan.

<sup>2</sup> World Bank World Development Indicators, 2007

**External efficiency of education is also low with weak linkages between education and the labor market.** The labor market is characterized by large demographic pressures, slow labor demand and deeply embedded rigidities having a negative impact on youth employment. The unemployment rate increased from 4.3 percent in 1981 to reach 11.6 percent in 2003 [UPDATE], mostly among youth ages 15-24. Unemployment is higher among educated than uneducated workers, mostly among those with primary education (47.3 percent)<sup>3</sup>. The education system in Syria is suspected of contributing to the current situation by failing to provide students with the skills and competencies demanded in the labor market<sup>4</sup>. Wages in Syria are low and do not change much with educational attainment. This has implications for the returns to education and the level of educational attainment in the country. A recent study estimated private rates of return to the different levels of schooling in Syria and found them to be low by international standards<sup>5</sup>.

### Elements of a Modernization Strategy for the Education Sector

**In the long run, the challenge of the education system is to produce a highly qualified workforce that embodies the skills and competencies that are necessary in supporting Syria in its transition to a market economy.** There is an urgent need to improve the quality and relevance of education to enhance the productivity of the workforce. This will entail primarily teacher training and development but within a comprehensive approach to reforming education inputs. It also involves greater provision of good quality early childhood care and education which provides a foundation for learning. Thirdly, it involves reforming the vocational education and training system in Syria, linking it better with the labor market and introducing greater flexibility in order to meet the changing needs of the economy.

**In the short and medium term, the education system needs to meet population pressures.** Expansion in school infrastructure needs to be carefully planned to ensure equity in access. The GoS's priority in expanding access to education should focus on targeting underserved and vulnerable populations and in

building a base for a pool of skilled workforce that can meet the demands of a globalizing economy. Targeting these populations would provide them with an equal chance to benefit from the emerging opportunities in the economy on the one hand and on the other hand would provide them with the necessary human capital to cope with the costs of transition.

**Also in the short term, the GoS needs to explore financing alternatives to sustain education reform and to improve efficiency of expenditure.** Improving the efficiency of expenditure would generate substantial savings that can be re-invested in further expansions in access and improvements in quality. There are substantial savings that can be generated from increasing the Student Teacher Ratio (STR) in both basic and secondary education by controlling teacher recruitment which would lead to potential savings of approximately one third of the wage bill by 2015. The freed-up resources could become a major source for financing the quality investments needed for education system. Channeling resources towards quality improvements would contribute to reductions in repetition which in turn leads to efficiency gains.

**There is a role for the private sector in meeting the high demand for schooling.** Syria has made positive steps in this direction by passing the private school law allowing for private sector investments in education but this remains an untapped resource. The GoS can put in place incentives to further encourage private sector involvement to expand access while monitoring closely the quality of private provision of education.

**Effective teacher training and development can improve quality and internal efficiency.** The GoS embarked on a Teacher Development Program that includes establishing teacher certification, upgrade of pre-service and in-service training and providing learning opportunities through distance learning, virtual and open education channels. While these are positive steps, experience has shown that partial administrative measures as the upgrading program are not enough to improve the quality of teaching. A comprehensive teacher policy should include reform in teacher initial education, design, and implementation of professional standards, reform of in-service training and opening accredited non-public

**In the long run, the challenge of the education system is to produce a highly qualified workforce that embodies the skills and competencies that are necessary in supporting Syria in its transition to a market economy**

<sup>3</sup> Preliminary results of Syria 2003/4 Unemployment Mapping Survey, 2008.

<sup>4</sup> Huitfelt and Kabbani 2006

<sup>5</sup> Ibid.



providers, as well as well-designed and implemented system of teacher incentives, which will affect student results.

**Expansion of early childhood care and education (ECCE) can contribute to better quality of education and can reinforce social integration for the young generation in Syria.** The FYP includes the basic elements of an ECCE strategy and policy development, however, a National Action Plan on ECCE needs to be developed within a comprehensive approach that combines education with care and health services and through greater partnerships with the private sector and local communities.

**Reform of the vocational technical education and training (VTET) system would contribute to improvements in the external efficiency of the education system.** If Syria is to compete in global markets, the economy needs to deliver higher value added and better quality products and services. This requires higher skill levels and a better qualified workforce. Moreover, increased competition and the introduction of ICT have prompted many firms to undertake fundamental changes in their internal organization and work practices which require greater responsibility and skills from the workforce, including problem-solving and communications skills as well as multi-tasking. Despite recent innovations that the GoS introduced, the VTET system will need major reform to adapt to a new market economy that is increasingly led by the private sector. Reforms should include: (i) deepening employer involvement in the design and delivery of training; (ii) providing more flexibility in the training system to meet changing demand in the labor market and to allow for life-long learning; (iii) innovations in training content and methods allowing for practical enterprise-based training; (iv) modernizing monitoring and evaluation systems; (v) reforming management structures for better coordination and greater accountability; and (vi) explore public-private partnerships in financing.

**Monitoring and evaluation of student learning is critical in assessing the impact of the education system and for setting evidence-based policy.** It would be necessary for the GoS to develop its capacity to conduct policy-oriented research based on evaluations and assessments including international assessments such as TIMSS and PISA. Syria should continue to participate in TIMSS to be able to benchmark its progress with other countries in the region and the world.

### World Bank Analytic and Advisory Assistance in Syria

The Bank has a productive technical engagement program in Syria which has been built in cooperation with the Government of Syria and technical counterparts in the central institutions. With this in-depth engagement the Bank has helped build robust knowledge in important sectors and cross cutting themes:

#### Human Development and Social Protection Support

**Enhancing Policy Making and Implementation Capacity in Social Protection** – The Bank is working to enhance the capacity of the Ministry of Social Affairs and Labor to analyze and improve implementation of social protection policies and programs. Capacity development activities are supported in two areas of social protection: (i) social safety nets; and (ii) pension reform.

**Education Sector Strategy** – A follow-up to the recently completed strategy is being conducted through capacity building for evidence-based policy making in education, as well as assessment of expansion options for higher education that are affordable, of high quality and meet the demands of the labor market.

**Integrated Policy Framework for Growth and Job Creation (MILES)** – Assisting the Government to develop an integrated policy framework for continued reform focusing on alleviating the binding constraints to growth. Linkages between macroeconomic conditions, investment climate, labor market regulations and institutions, education and skills development and social protection are assessed.

#### Economic Growth and Transition

**Capacity Building Activities on Public/Private Partnerships** – Improving the capacity of the Public/Private Partnership Unit to be established in the Prime Minister's Office to carry out PPP transactions.

**Country Economic Memorandum** – This study reviews the economic reform process in Syria to-date and examining the main opportunities for, and constraints to, broad-based economic growth. It also addresses the consequences of shocks such as the steep increase in food and oil prices and the depletion of oil reserves in Syria.

Public Expenditure Policy Notes – Production of a series of policy notes that could be consolidated as a Public Expenditure Review.

**Trade Policy Review** – Review of Syria's current trade policies in addition to the impact of previous reforms and remaining issues. This program supports the GoS in designing an action plan for trade reform and capacity building of the Ministry of Economy and Trade and relevant Government agencies.

**Country Procurement Assessment Report (CPAR)** – Assessing procurement and contract management practices following the implementation of the new procurement law; and identifying areas requiring further improvements in order to maximize the intended benefits of previously undertaken procurement reforms.

**Doing Business (DB) Indicators** – This program aims to build the government's capacity in understanding the methodology underpinning the DB indicators, and identify potential reforms to improve the business environment. Following a Doing Business workshop, organized by the Bank in March 2009, a draft reform action plan focusing on business environment reforms has been prepared by technical working groups under the leadership of the Ministry of Economy and Trade. This action plan has been adopted by the authorities and implementation is being started with Bank assistance.

**Investment Climate Assessment (ICA) Update** – An update of the Bank's 2005 ICA is providing up-to-date information and advice to the Government on priorities to improve investment climate and further promote private sector development.

To enhance its capacity for economic survey processes and analysis, the Syrian Central Bureau for Statistics has requested a grant from the Bank's **Trust Fund for Statistical Capacity Building**, which will provide technical assistance on economic surveys. Three main areas of support have been identified: the design of questionnaires, support to the conduct of the surveys and capacity building on data processing and analysis.

**Public Financial Management (PFM) Reform** – Support to the Ministry of Finance in order to improve fiscal control by linking policy and budget management; support budget integration to increase the focus on service delivery/quality, and strengthen fiscal/budget control and reporting to improve performance and transparency. These PFM reforms are integral part of the Action Plan endorsed at the recent Governance Symposium and the Minister of Finance has requested Bank assistance in their implementation.



## Environment Improvement for Sustainable Development

**Electricity Sector Strategy Study** – aims to identify options to improve the financial and technical performance of the electricity sector, particularly on ways to reduce the electricity demand and supply gap. It will also provide options for sectoral reforms and institutional changes needed to improve the efficiency and quality of service delivery and to enable private participation in electricity sector investments.

**Technical Assistance in the Transport Sector** – through workshops and working papers focused on determining the role and importance of the Transport sector in the Syrian economy, providing a framework for assessing the sector investment priorities, improving the efficiency and effectiveness of urban transport, and supporting the preparation of a national transport action plan.

**Agriculture and Irrigation Sector Strategy** – Informing Government on issues and options for reforms in the area of agriculture and irrigation and providing technical assistance with specific irrigation-related projects to support the Government in the implementation of a National Agricultural Support Fund, reviewing and rationalizing the agricultural subsidy schemes, and in the development of a national Agriculture and Irrigation sector strategy.

## Trust Fund Support

The Bank is in the process of mobilizing a small **Japan Social Development Fund (JSDF) grant** to improve the employability of marginalized youth, defined as youth aged 17-20 years with less than a 9th grade education who have been out of work for more than 2 years. The grant will rely on strong private sector participation, building partnerships across providers and developing the organization capacities of local institutions and NGOs to provide targeted technical training and work skills in two pilot governorates.

An **Avian Influenza Preparedness Grant** (AHI Facility) will assist the Government of Syria in minimizing the risk of outbreaks of the Highly Pathogenic Avian Influenza (HPAI) in domestic poultry and will strengthen Syria's preparedness and control capacity for potential outbreaks in humans.

# Jordan

## Well-Developed Electricity Sector Challenged by Rising Demand

- by Vladislav Vucetic<sup>1</sup>



In many ways, the structure of the power sector in Jordan and the reform process it has undergone present a good model in the region: a clear institutional set up with an increasing private sector role in generation, underpinned by a modern regulatory framework<sup>2</sup>.

### Institutional reform

The Government has made significant progress in institutional reform in the power sector by restructuring the sector, establishing an autonomous regulatory commission, and moving towards privatization and public-private partnerships. A new energy law, under discussion in Parliament, stipulates certain degree of liberalization in the petroleum sector and establishment of an autonomous energy regulatory commission, which will include all energy sectors and subsume the existing electricity regulatory commission. The new law also envisages creation of a renewable energy and energy efficiency agency. In the power sector, the main challenge is to further reduce the role and financial exposure of the Government which directly (through explicit guarantees to investors) and indirectly (through ownership of NEPCO and fuel procurement) underwrites financial performance of the sector. Making generation more competitive and liberalization of end-user market with direct bilateral contracting between generation and distribution companies (and end-users where feasible), are some of the ways to transfer commercial risks away from the Government and – if properly done – to improve supply and end-use energy efficiency. Privatization has reintroduced a degree of dominance in the power sector structure as the largest generation company (CEGCO) and two out of three distribution companies (EDCO and IDECO) were sold to the same investor. Further structural and regulatory interventions will need to take into account this feature.

### Consumption and rising demand

Electricity demand in Jordan has been growing fast in step with the economy, which performed strongly over the 2004-2007, when GDP growth averaged over 7 percent.

End-users consumption reached 11,500 million kilowatts-hour in 2008, growing on average 9 percent per annum since 2002. Electricity consumption of the commercial sector had the fastest growth (12 percent per annum on average between 2002 and 2007), followed by household (10 percent) and water pumping (9 percent). The household sector takes the largest share of electricity consumption, accounting for 38 percent of the final

consumption, followed by the industrial sector at 27 percent, commercial at 17 percent and water pumping at 15 percent.

### A well-developed power sector

Practically all households are connected to electricity network. Total installed generation capacity is about 2,500 megawatts (MW) in six larger power stations. Peak demand in 2008 was 2,230 MW and total electricity generation and net imports were about 14 billion kilowatt-hours (kWh).

### Poor energy resources

Jordan is not well endowed with traditional sources of energy, such as conventional fossil fuels or hydropower, and imports more than 95 percent of its primary energy needs -- mostly crude oil, oil products, natural gas, and some electricity. Energy imports valued at about US\$3.7 billion constituted about 19 percent of total imports of goods and services (US\$19.1 billion) in 2008.

### Structure, Ownership, Commercial Performance

The current power sector structure consists of three generation companies, two of which are majority privately owned (CEGCO and Amman East) while the third is state-owned (Samra); three distribution companies – EDCO, IDECO, and JEPCO -- all three privately owned; and a state-owned transmission and dispatch company (National Electric Power Company – NEPCO), which also operates the wholesale electricity market.

### Single buyer model

The wholesale electric power trading arrangements are based on a single buyer model, under which NEPCO buys electricity from generation companies and exporting countries (Egypt and Syria) and, in turn, sells it to distribution companies and directly to some large industrial consumers<sup>3</sup>. Electricity purchase prices between NEPCO and generation companies are based on long-term agreements whose terms, in the case of private independent power producers (IPPs), are set through competitive bidding. Prices of electricity sold by NEPCO to distribution companies and industrial consumers are set by the Electricity Regulatory Commission (ERC), an autonomous agency, which also sets retail electricity tariffs between distribution companies and end consumers. NEPCO is also responsible for buying fuel for the power plants operated by generation companies.

<sup>1</sup>Lead Energy Specialist, the World Bank, MENA Region

<sup>2</sup>A fourth power generation company – Qatrana – has been established recently, but has no operating assets as construction of its 373-MW power plant is to be completed in 2011.

<sup>3</sup>Electricity imports from Egypt and Syria are small, especially from Syria, and electricity exports are even smaller, limited to occasional partial compensation of imports.



*370 mega-watt combined-cycle Amman East Power Station – the first private power station in Jordan*

End-user tariffs are generally cost-reflective. The sector receives no direct subsidies, although the Government guarantees NEPCO's purchases and payment obligations under long-term power purchase agreements with IPPs. Retail tariffs do contain cross-subsidies between consumer categories, with subsidies generally flowing to the residential sector and to lower-consuming households.

### Key sector issues

Because of relatively poor endowment with primary energy resources, Jordan has sought to diversify its fuel mix and energy imports. This became especially important as the import of oil from Iraq stopped in early 2000s and international price of oil started rising. In 2004, as the Arab Gas Pipeline crossed from Egypt into Jordan, the Government of Jordan signed a long-term gas import contract with Egypt and natural gas became the principal fuel for electricity generation, replacing oil. In 2008 Jordan imported 2.7 billion cubic meters of gas from Egypt, all of which was used for electricity generation. Gas imports have helped to mitigate the impact of the high and volatile oil fuel prices in recent years.

### Domestic alternatives

The Government is making efforts to develop domestic alternatives to electricity generation based on imported fuels, such as wind and solar power and oil shale, as well as nuclear energy. Jordan's policy is to increase the share of renewable in energy supply from 1 percent in 2007 to 7 percent by 2015.

### Power generation reserve margin

With increasing demand, generation reserve margin in Jordan has fallen under ten percent, below the level needed for secure supply. Jordan should take more aggressive measures to improve energy efficiency, which – given Jordan's relatively high consumption per unit of GDP -- is the most economic way of balancing demand and supply. Such measure will take time, however, and will reduce

but not stop energy and electricity demand growth. Thus, Jordan needs to continue adding new power generation capacity as a matter of priority to increase generation reserve margin and alleviate the threat of electricity shortages.

### World Bank Engagement

The World Bank has long supported development of Jordan's power sector through physical investments and policy assistance. The World Bank coordinates closely in its activities with the Government of Jordan, the private sector, development partners, and with other organizations in the World Bank Group (IFC, MIGA). Recent activities include:

- The first partial risk guarantee (PRG) for the Amman East Power Plant Project, which was successfully completed and put in operation in July 2009, demonstrating the viability of the new sector structure and the value of the Bank's involvement.
- A Japan Policy and Human Resources Development Fund (PHRD) grant, administered by the Bank, supported resource assessment in renewable energy, including the design of a legal and regulatory framework which resulted in the draft Renewable Energy Promotion Law and Jordan Renewable Energy and Energy Efficiency Fund design.
- The Bank is the implementing agency of a US\$6 million Global Environment Facility (GEF) grant to support the promotion of wind power in Jordan; work is now underway for the selection of a private project developer for the development of a wind farm at Al-Fujeij.
- The Bank is also the implementing agency of another US\$1 million GEF grant to support energy efficiency program in Jordan.
- The Bank is now expanding the support for regional energy integration and is preparing a proposal for the Clean Technology Fund (CTF) for development of renewable energy at regional scale, with an emphasis on concentrated solar power. The proposal is expected to include development of solar power plants in Jordan (and in other MENA countries) and strengthening of Jordan's high-voltage transmission network, which is an important transit link within Mashreq region.
- The Bank is providing technical assistance focused on implementation of Jordan's energy strategy, especially in relation to the medium-term investment priorities in electricity generation and energy efficiency.
- A study on the impact of the global financial crisis on investment environment in the sector is being undertaken, funded by the Energy Sector Management Assistance Program (ESMAP).

### Teacher Education at a Crossroad: Strengthening Teacher Preparation

Good teachers help create good students. The evidence shows that good teachers are the most important school-related factor influencing student achievement.

"We are ready to work with our neighbors and partners to find solutions. So let's join together and invest in our teachers, so our children believe they can be anything they want." This is how Queen Rania of Jordan summed up a two-day regional conference sponsored by the World Bank on the occasion of the launch of Queen Rania Teacher Academy (QRTA).

The academy was established in 2008 to develop a regional center of excellence through a partnership with Columbia University's Teachers College. The QRTA will focus on high-end, selective and quality teacher training and education programs for public school teachers in Jordan and the region.

A close partnership between Teachers College at Columbia University and the World Bank paved the way for QRTA to organize the "Teacher Education at a Crossroad" conference in June.

The conference held in Amman under the patronage of the Queen Rania brought together more than 130 participants. Both regional and international policymakers, practitioners, researchers and experts in the field of education convened in order to address critical issues facing the region's teaching force.

Regional academicians and experts from Teachers College at Columbia University, Chile and Singapore shared their best practices and methodologies for improving professional development. They presented the strategies for assessing learning and teaching, strengthening school and school leaders' capacities to ensure success for all students and identifying important directions for educational policy.

Throughout the conference, the panelists discussed national teacher standards and certification requirements to improve teaching quality, strengthen university-based teacher preparation and professional development. They stressed the importance of incentives in building quality teachers.

The two-day seminar culminated in a ministerial roundtable, which assembled in addition to the Minister of Education and Higher Education in West Bank and Gaza, representatives from

the Ministries of Education in Jordan and Lebanon and the Director of the Middle East and North Africa Human Development Department at the World Bank. The panelists presented the policymaker perspectives on the way forward and discussed the policy implications in the region and the available options.

Based on the findings of the Middle East and North Africa education flagship report, which was launched in 2008, the Jordanian Government requested World Bank assistance in ensuring a coherent overall policy framework for teacher professional development in Jordan, and in providing international expertise in the area of teacher professional development.



The World Bank Group's support to Jordan is defined in the 2006-2010 **Country Assistance Strategy**. The strategy is aligned with the Government priorities, as expressed in particular in the 10-year National Agenda, of poverty alleviation and the creation of higher productivity jobs. The Bank's assistance revolves around four clusters:

- Strengthening the investment environment and building human resources for value-added, skill-intensive and knowledge-based economy;
- Supporting local development through increased access to services and economic opportunities;
- Reforming social assistance and expanding inclusion; and
- Restructuring public expenditures and supporting public sector reform.

The strategy deploys several instruments to achieve its objectives: lending, analytical and advisory activities, equity and loan financing to the private sector, and training for institutional capacity. The new CAS covering fiscal years 2006 to 2010 was discussed by the Bank's Board of Directors on May 4th 2006. The Jordan Portfolio consists of eight active projects, totaling US\$288.5 million, that are primarily focused on education, social protection, transport and urban development. The portfolio also consists of a number of grants from the Global Environment Facility (GEF) that fund activities as follows: "Conservation of Herbal/Medicinal Plants" (US\$5 million), "Integrated Ecosystems in the Rift Valley" (US\$6.15 million), "Promotion of a Wind Power Market" (US\$6 million), an "Energy Efficiency Investment Support Framework" (US\$1 million), and one grant from the Institutional Development Fund (IDF) on "Measuring the Impact of National Policies and Strategies on Gender" (US\$254,000)

**Amman Development Corridor (US\$71 million)** - The project aims at: (a) assisting Jordan's growth strategy by providing needed infrastructure to support Amman's role as a regional center for trade and services; and (b) helping ensure that Jordan's road assets are managed in a cost effective and sustainable manner.

**Regional and Local Development (US\$20 million)** - The objective of this project is to: (a) strengthen the intergovernmental finance system, (b) upgrade local financial management, technical and administrative capacities at the local level, and (c) increase the coverage and quality of municipal service provision, with particular emphasis on under-served areas.

**Cultural Heritage, Tourism, and Urban Development (US\$56 million)** - The project builds on the experience and achievements of the Second Tourism Development Project and supports the National Tourism Strategy recommendations to develop regionally balanced cultural tourism through regeneration of historic urban neighborhoods and creation of cohesive and culturally rich urban

attraction poles. The main focus of the proposed project reflects the current international experience in boosting local economies and improving the local quality of life through creating investment opportunities in what is defined as cultural and tourism industries.

**Amman East Power Guarantee (US\$45 million)** - The project's main objective is to meet Jordan's electricity needs in an economically and environmentally sustainable manner to contribute to economic growth and well-being of the population of Jordan. The purpose of the IBRD Guarantee is to enhance competition and therefore help reduce the Project's financing costs. The Project components consist of a 370-MW gas-fired combined-cycle power station to be developed, owned, and operated by a private-sector project company.

**Social Protection Enhancement Project (US\$4 million)** - The project aims to improve the management and operations of the cash social assistance programs and to improve the access to and quality of social care services.

**Employer-Driven Skills Development Project (US\$7.5 million)** - The project aims to enhance the internal and external efficiency of the E-TVET sector by making it more flexible and demand driven through the development of employer community participation in (i) sector policy formulation, (ii) institutional development and reform, and (iii) skill development program design and delivery.

**Amman Solid Waste Project (US\$25 million)** - The solid waste project objective is to enhance the quality, environmental and financial performances of municipal solid waste management (MSWM) in the Greater Amman Municipality. Systematically address municipal solid waste management issues and initiate steps towards integrated and efficient MSWM while mitigating negative environmental effects at both the local and global level. The project could be a model for other municipalities in Jordan to enhance their MSWM systems.

**The Education Reform for the Knowledge Economy II (ERfKE II) Project (US\$60 million)** - This project is the follow up to ERfKE I which aimed at improving: (a) access to, and equity in, education through supporting pre-school education for disadvantaged children and expansion of the school construction to meet population growth; and (b) quality of education through the use of technology and professional development. ERfKE II will deepen the impact of the reforms and widen the scope of the the Government's Education Reform Program initiated in 2003. The objective of ERfKE II is to have students enrolled in all streams of pre-tertiary education in Jordan acquire skills necessary for participation in the knowledge economy.

# Iraq

## Priority to Providing Services to the People

- by Susan R. Razzaz\*



**O**n November 2, the Iraqi Poverty Reduction Strategy High Committee submitted a detailed plan for poverty reduction to the Council of Ministers.

Although Iraq is abundant in natural resources, such as petroleum, fertile land and water, 23% of the population falls below the official poverty line. Years of wars, sanctions and mismanagement have resulted in inadequate investment in the population and the destruction of infrastructure.

Today, Iraqis are trying to reconstruct their physical and human capital, but conflict and declining revenues due to declining oil prices makes that difficult. Spending on public services such as education, health, and agriculture remain well below that of other countries in the region. In this context, the newly developed Poverty Reduction Strategy is crucial to ensure spending priorities and policy decisions meet the needs of the population.

The Poverty Reduction Strategy was developed by a diverse team including high level representation from Parliament, the Prime Minister's Office, the Ministry of Finance, the Ministry of Planning and Development Cooperation, the Ministries of Education, Health, Justice, Trade, and Labor and Social Affairs, the Kurdistan Regional Government and Iraqi academia. The High Committee's work is particularly noteworthy in their ability to work across sectoral, institutional and political boundaries.

The Poverty Reduction Strategy is the culmination of several years of work by the High Committee, which was engaged in a three part process. The first stage of the work was the implementation of the Iraq Household Socio-Economic Survey – the first nationwide income and expenditure survey in Iraq since 1988. The second part of the process was the development of a poverty line (endorsed by the Cabinet in April) and the diagnosis of the causes and consequences of poverty (based on the survey data). The third part of the process – the Poverty Reduction Strategy itself – has been based on the diagnosis of poverty. In June of this year, the High Committee presented the draft strategy to a workshop of 120 participants from Iraqi private sector, Iraqi Civil Society Organizations, Iraqi government colleagues and donor organizations. The final version of the Poverty Reduction Strategy incorporates the feedback received during the June workshop, as well as coordinating its implementation with the ongoing work on the National Five Year Development Plan.

The International Reconstruction Fund Facility for Iraq (IRFFI) provided support to this work through the World Bank administered Iraq Trust Fund. The principle vehicle for this support has been the Household Survey and Policies for Poverty Reduction (HSPR)

project, which included a US\$5.5 million grant executed by the Ministry of Planning and Development Cooperation (MOPDC) and a US\$3.6 million capacity building grant executed by the Bank. The capacity building grant was used to train the Iraqi team in specialized techniques for data collection, poverty analysis and the process of strategy development.

The diagnosis of poverty developed under the second part of the project (and articulated in a joint World Bank – Government of Iraq report) identified several important features of Iraqi living standards and poverty:

- There are large geographic disparities: poverty rates are much higher in rural areas (39%) than in urban areas (16%) and the poorest of the poor live in rural areas.
- Enrollment rates are low, especially among poor, rural girls. (Even at the primary school level, enrolment rates among poor rural girls are only 60%, falling to 4% by secondary school.)
- As with education, the health status of Iraqis has dropped in the past decades. Maternal and infant mortality rates are now among the worst in the region. Low health status is due to declining access to water and sanitation as well as the low quality of public health care.
- A universal food ration system prevents poverty from reaching even higher rates, but it absorbs a huge share of government resources, is vulnerable to corruption, distorts food prices and is highly inefficient as a safety net.
- Two thirds of the poor work in the informal sector – most in non-wage agriculture or as employees in small unregulated enterprises. As a result of distorted food prices and lack of investment, agricultural productivity has fallen dramatically over the past decades.
- Many of the poor own their own homes, but the quality of the environment in which they live is bad. Few have the electricity they need. And they lack access to paved roads which would facilitate access to markets, schools and health care. (71% of the poor live on dirt roads.)

The Poverty Reduction Strategy responds to these needs by prioritizing six areas for government action. These include: higher income from work; improved health status, improved educational status, better housing environment; an effective social protection system and reduced gender disparities. The strategy provides details of the activities needed to achieve these six priorities as well as a plan for monitoring the strategy's implementation.

The Poverty Reduction Strategy is expected to guide the priorities of government budget and donor activities. The submission of the PRS to the Council of Ministers this month represents an important development milestone for the people of Iraq.

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# Iraq

## Pension Reform: Improving Old-Age Income Security in Iraq

- by Ghassan N. Alkhoja\*



Iraq passed a pension reform law back in January 2006, but its implementation was suspended as it was widely deemed to be fiscally unsustainable. The Law was subsequently amended and ratified in December 2007. The new draft, commonly referred to as the Unified Pension Law, incorporated new measures to safeguard its financial sustainability and altered the design of public sector pensions in line with good international practices. The Unified Pension Law also mandated the unification of the currently distinct public and private sector pension schemes. The World Bank is supporting the Government in responding to the implementation challenges of the Unified Pension Law, through provision of long-term technical assistance to help the Iraqi Government build stronger and more sustainable institutional structures. The technical assistance complements existing support to the Government of Iraq, notably an Emergency Social Protection Project, financed by the Iraq Trust Fund (ITF), and a proposed new project to provide technical assistance for Social Safety Net Implementation.

The Unified Pension Law created the National Board of Pensions (NBP) and the State Pension Fund (SPF), to replace the old State Pension System. In addition, the Law requires the merger of the public and private sector pension schemes by January 1, 2010, with the intent to alleviate the existing labor market segmentation. The NBP will then become the unifying body of the mandatory pension schemes, to include the SPF, as well as the Social Security System (SSS – the private pension scheme) currently residing at the Ministry of Labor and Social Affairs. The envisioned merger of the public and private schemes is desirable in as much as it alleviates the segmentation of the labor market along the public/private divide, but the feasibility of the implementation within the legislated deadline poses a substantial implementation challenge. It is also highly likely that additional regulatory and legislative actions are needed since the ultimate intent behind such harmonization from a policy perspective is to discontinue the segmentation of the labor force across the boundary of the public and private employment sectors, i.e. allowing greater degree of labor mobility along a development path where the private formal employment sector is expected to play a more dominant role in employment creation.

Even if all the implementation issues of the new Pension Law are resolved, the mandatory pension system in Iraq will cover only roughly one fourth of the labor force representing a low level from a social protection point of view, and is 10 percentage points below the already low average coverage rate in the

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Old man applies for pension at center in Baghdad.

Courtesy, National Board of Pension

Middle East and North Africa (MENA) region. The coverage level of the national pension systems in MENA is below that of the one in Iraq only in two countries: Yemen and the West Bank and Gaza. The coverage rate reflects upon the capability of the pension system to prevent old-age poverty. A low coverage rate does not only reflect limited overall access to the pension system, but it also signals that only the already advantaged social groups have access to this social protection instrument. The primary beneficiary group of the pension system is public sector employees who already possess a solid and secure source of income compared to the uncovered masses in the informal sector. Both the goals of poverty alleviation and accelerating private sector led economic growth would point into the direction of extending social insurance coverage on the medium- to long-term.

### Short-Term Objectives

The short-term activities of the proposed technical assistance program will focus on the implementation of this legislation and on the associated capacity building. The uncertainty caused by incomplete implementation may undermine public belief in the pension system; thus, developing a pension administration system, which can reliably determine the pension benefits of new pensioners, is a first order priority. The data recording needs of the new pension benefit formula also must be accommodated immediately. This is a demanding task as the new legislation makes the pension benefit conditional on an average wage measure that gradually extends the number of years in the wage history considered in the average wage measure. In addition, the reserves of the SPF is expected to accumulate during the early maturation of the scheme should be protected by prudent investment management policies and investment man-

agement practices. As the implementation process is primarily constrained by the existing institutional capacities, the implementation support will specifically focus on identifying and unlocking the dormant capacities within the NBP, and in building the needed institutional capacity to sustain operations.

### Medium- and Long-Term Objectives

The medium-term objectives of the proposed program will focus on unifying the rules of the private and public sector pension schemes, and then implementing the associated administrative merger. The Unified Pension Law requires that the assets, liabilities and administrative resources of the Social Security System are transferred to the National Board of Pensions by 2010. The merger is complicated by the fact that the Social Security System (SSS) is not only a pension scheme, but other social insurance components (e.g. health insurance) are offered as a part of the SSS package. These components are not offered to public sector workers under the coverage of the State Pension Fund. In essence, the medium-term objectives of the technical assistance program will focus on assisting the GOI to develop a policy framework for the unification of the public and private sector social insurance packages, complete the associated legislative process, and then assist in the administrative merger of the currently distinct entities.

The longer-term objectives of the proposed technical assistance program will help the GOI to develop a long-term old-age income security strategy for Iraq with a focus on the expansion of social insurance coverage. The Unified Pension Law focuses on the existing formal sector pension schemes, but offers no coverage to approximately three fourths of the labor force. The incremental improvements in the pension system should be integrated in the context of a long-term national old-age income protection strategy. This strategy should consider techniques that would improve the coverage rate of the mandatory pension (social insurance) system. Such techniques should consider those social groups who face the consequences of exclusion imposed by the regulatory boundaries of the formal employment sector, but it also should create incentives that could attract those who currently stay outside of the pension system voluntarily.

### Implementation Considerations

The technical assistance will be organized along five main components, and prioritized to ensure immediate support to the short-term implementation requirements of the new Pension Law and building the institutional capacity of the NBP: (i) Develop Capacity to Implement the new Pension Law; (ii) Develop Actuarial and Pen-

sion Policy Analysis Capacity for the SPF; (iii) Improve the Physical Infrastructure of the NBP; (iv) Unify Mandatory Pension Provisions in Iraq; and (v) Develop Long-Term National Old-Age Income Protection Strategy for Iraq. While the World Bank will provide key technical assistance inputs, the GOI is committing to provide financial support to key infrastructure investment areas, including information technology systems and physical improvements to pension facilities. In addition, the technical assistance is designed specifically to build the institutional capacity of the NBP through extensive training to ensure sustainability during and after the technical assistance is closed. The main features of the implementation arrangements are as follows:

- Focus will be on specific implementation support tied to the provisions of the Unified Pension Law, as well as provision of "on-demand" advisory services and support;
- Institutional building will be a main focus, through support for the development of NBP and SPF guidelines, regulations, and human resource development activities, but also more importantly on its ability to utilize its own financial resources for capital investments;
- The World Bank team will focus on technical assistance areas, but will also provide technical assistance support to elaborate options for the capital investment requirements allowing the NBP/GOI to utilize its own financial resources for these items;
- Full-time national staff will be recruited in Baghdad who will provide "on-the-ground" support for the work;
- Periodic (at least three times per year) reviews will be undertaken by the World Bank team responsible for implementation;

With the NBP, the Pension Reform Management Office (PRMO) was established to support the implementation. The role of the PRMO is to coordinate pension reform implementation (including donor relations), and will act as counterpart to the World Bank in implementation of the technical assistance project. The PRMO is headed by the Director General of the NBP, and is currently staffed with five motivated and capable individuals. The PRMO had initially received baseline training in project management and organizational skills as part of USAID's contribution to the NBP. The implementation period for the technical assistance is expected to be three years. Implementation will be phased to allow for focus on immediate implementation requirements arising from the new Pension Law, while ensuring strategic focus on supporting the development of the long-term national old-age income protection strategies for Iraq.



The Joint World Bank-IFC **Interim Strategy Note** for 2009–11 benefited from a stocktaking of the Bank Group's engagement with Iraq to date as well as extensive consultations with Government of Iraq, the donor community, and other stakeholders, including representatives from private sector and civil society organizations. Activities under this ISN fall under one or more of three thematic areas of engagement:

- Continuing to support ongoing reconstruction and socio-economic recovery;
- Improving governance and the management of public resources, including human, natural and financial; and
- Supporting policies and institutions that promote broad-based, private-sector-led growth.

### The International Reconstruction Fund Facility for Iraq (IRFFI)

The International Reconstruction Fund Facility for Iraq aims to help donors channel resources and coordinate support for reconstruction and development in Iraq through two trust funds: The World Bank Iraq Trust Fund (ITF) and the UNDF Iraq Trust Fund. The ITF finances reconstruction and capacity building projects, within the framework of Iraq's National Development Strategy and International Compact with Iraq. The donors to the ITF agreed to extend the termination date of the ITF to December 31, 2013, effective on May 26, 2009.

### Portfolio

The Iraq portfolio includes three closed projects in capacity building, textbook provision, and community infrastructure development, and 20 active projects. 15 of these are financed by the ITF and 5 are financed by the International Development Association (IDA) and are concentrated in sectors such as water, road rehabilitation, health, energy, education, financial management, and social protection.

## Iraq Trust Fund (ITF)

### Closed Projects

**First Capacity Building Project (US\$3.6 million)** - The project focused on the immediate need for Iraqi ministries to upgrade project planning and management skills. More than 580 officials from various ministries and local institutions benefitted from the project.

**Textbook Provision Project (US\$40 million)** - The project was designed to maximize local content and employment by contracting local printers to the maximum extent possible, taking into consideration the quantity of paper available in Iraq.

Contracts to Iraqi printers amounted to US\$14 million; and an estimated US\$7.5 million was spent on local labor costs.

**Community Infrastructure Rehabilitation Project (US\$20 million)** - Aimed to rehabilitate rural infrastructure by financing labor-intensive, small-scale civil works programs, and create local employment.

### Active Projects

**School Construction & Rehabilitation Project (US\$60 million)** - Aims to alleviate hazards and overcrowding in schools through major rehabilitation of 133 existing schools and construction of 52 new schools, benefiting over 50,000 families with school age children (about 95,000 students).

**Second Capacity Building Project (US\$7 million)** - Builds on the First Capacity Building Project to help authorities introduce medium-term policies, focusing on economic and public sector management, and social safety nets.

**Health Rehabilitation Project (US\$25 million)** - Aims to help rehabilitate emergency services in 9 hospitals and provide 12 hospitals with basic medical and laboratory equipment and essential drugs.

**First Private Sector Development Project (US\$65 million)** - Aims to help strengthen the private/financial sectors by: (i) installing a national high capacity telecommunications network; (ii) linking the Central Bank to commercial banks to improve the payment system; and (iii) addressing selected priorities in institution building.

**Baghdad Water Supply and Sanitation Project (US\$65 million)** - Aims to help restore basic water supply and sanitation services for Baghdad through rehabilitating existing networks and facilities, and to provide institutional support.

**Water Supply, Sanitation and Urban Development Project (US\$110 million)** - Aims to upgrade and rehabilitate water supply and sanitation in 9 cities, and conduct urban reconstruction in the poorest areas of 3 cities, benefiting over 2 million people. The project also provides training and technical support.

**Community Infrastructure Rehabilitation Project (Additional Financing) (US\$26 million)** - Aims to undertake labor-intensive civil works to restore rural water infrastructure, create local employment, enhance community participation, and increase institutional capacity

**Emergency Disabilities Project (US\$16.8 million)** - Aims to improve rehabilitation and prosthetic services to the disabled to reduce the burden of physical disability by upgrading the infrastructure of selected rehabilitation or prosthetic centers and the skills of the staff to provide services.

**Social Protection Project (US\$8 million)** - Aims to strengthen the capacity of the Iraqi agencies to develop, manage and monitor pension and social safety net reform programs.

**Household Survey & Policies Project (US\$5.5 million grant / US\$3.6 million TA)** - Finances a comprehensive household income and expenditure survey and data analysis to enable the authorities to establish a poverty line, target social assistance to the neediest, and make informed policy decisions.

**Marshlands School Construction Project (US\$6 million)** - Provides additional financing for the Emergency Schools Construction and Rehabilitation Project to finance new school construction of 33 small schools in the Southern Marshlands area of Iraq, benefiting 6,000 to 8,000 children.

**Environmental Management Project (US\$5 million)** - Aims to strengthen key functions of the Ministry of Environment to enable it to undertake policy analysis, formulate laws and regulations, monitor environmental quality, promote environmental awareness, and conduct technical studies.

**Electricity Reconstruction Project (US\$6 million)** - Aims to upgrade technical skills in operations and maintenance of power utilities at the Ministry of Electricity (MOEI), in conjunction with the US\$124 million IDA credit that aims to restore the base load generation capacity of the Hartha power station.

**Regional Emergency Health Response (US\$8.7 million)** - Aims to assist the Kurdistan Regional Government to establish rapid, coordinated and effective response services to health emergencies.

**Banking Sector Reform Project: (US\$10 million)** - Aims to support Iraq's implementation of its Banking Reform Strategy and Action Plan, focusing on the institutional, operational and financial restructuring of the 2 state-owned commercial banks, and strengthening of the regulatory and supervisory functions of the Central Bank of Iraq.

## International Development Association (IDA)

**Third Emergency Education Project (US\$100 million)** - Aims to assist the Ministry of Education to reduce school overcrowding and strengthen its capacity to improve quality of teaching and curricula.

**Emergency Road Rehabilitation Project (US\$135 million)** - Finances the rehabilitation of highways and village access roads in Central, Southern and KRG Governorates of Iraq. 3 floating bridges will also be replaced with permanent structures.

**Dokan and Derbandikhan Emergency Hydropower Project (US\$40 million)** - Aims to upgrade electricity supply primarily in the Kurdistan region, but also nationally through its connection to the national grid. About 490,000 households will benefit directly, as well as a number of industries.

**Emergency Electricity Project (US\$124 million, with the companion ITF grant of US\$6 million)** - Aims to restore the base load generating capacity of the Hartha power plant and build capacity at the Ministry of Electricity.

**Emergency Water Supply Project (US\$109.5 million)** - Aims to improve the quantity and quality of water in 4 high priority governorates through the rehabilitation and upgrade of the water supply and distribution infrastructure, and engage the government to develop a sustainable water sector policy.