

## Chapter Ten

### Public Policy and Poverty in the Arab Region: Major Findings and Lessons Learned

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The persistence of poverty in the developing world has drawn the attention of policy makers, donors, and international organizations alike over the last decade. The Millennium Development Goals, adopted at the UN Millennium Summit by most of the World's governments, set ambitious goals to be achieved by 2015. The first goal of halving the percentage of poor placed poverty reduction at the center of the global agenda. Many developing country governments have also adopted their own poverty reduction strategies or similar concept papers to outline strategic plans and to earmark financial resources for achieving significant poverty reduction goals.

As national governments and their development partners develop plans for reducing poverty, they require a nuanced understanding of the specific mechanisms through which public policy interventions can contribute to poverty reduction. Indeed, the role of the state and of public policy has been debated for a long time. The general consensus is that public policy designed by the state should maximize economic efficiency by correcting market failures while also ensuring more equity and reducing poverty. Governments can use a diverse set of interventions to achieve these objectives, including trade, price, tax, monetary and spending policies. Among these, public spending is one of the most effective instruments that governments can use to achieve development goals such as economic growth and poverty reduction.

Government spending affects final development objectives through different channels. For example, government investments designed to build human and physical capital –education, infrastructure, technology, and research, for example -- can have a long-term impact on economic growth, and therefore on per capita income and poverty. This type of investment can also contribute to poverty reduction more immediately by increasing demand for intermediate inputs, labor, and other factors of production. Social spending on health, social security, and cash transfers or subsidies often have an immediate impact on poverty and equity through direct income (or in kind) transfers, while contributing less to growth generation. Yet public resources are limited and each expenditure has an opportunity cost. Using empirical evidence to prioritize expenditures that best achieve growth and equity objectives is therefore critical.

Development economists have generated an impressive body of knowledge about the impact of public spending on growth and poverty reduction in many regions. Such studies provide policymakers with the evidence necessary to make difficult choices. But, to date, few studies have examined the effects of government spending policies in Arab countries. The Arab region is economically diverse, and, while international estimates show low poverty rates for the region as a whole, large sub-populations live in poverty or suffer economic vulnerability. Accordingly, this book sought to examine the channels through which public expenditures in Arab countries affect development indicators in both the short- and long-run, and to identify how priorities can be set to maximize the social development impact of limited public resources.

The remainder of this chapter reviews the major findings of the study. After considering the regional-level trends in poverty and public policy in the Arab countries presented in the three overview papers, we highlight the key findings of the five country case studies. We conclude with a discussion of cross-cutting themes and future research directions.

### ***Poverty and Public Policy in the Arab Region***

Poverty and inequality are significant public policy problems in the Arab region. Using country-specific poverty lines, Ali estimated the overall head-count ratio for the Arab region at 26.7%, an order of magnitude higher than the international estimates of Chen and Ravallion (2004). This figure more accurately captures the poverty trends observed on the ground over the last decade. The region is also characterized by high income inequality, ranking second to Latin America in the early 1980s, and third in the period from 1986-90. Macroeconomic shocks, such as structural adjustment, trade liberalization, commodity price fluctuations (oil), and/or inflation, appear to negatively impact microeconomic welfare more significantly in this region than others. Since poorer households are less able to insure themselves against such shocks, they are affected disproportionately, which may account for some of the inequality observed.

To combat such problems effectively, policymakers must understand the varying impacts of different policy interventions on poverty outcomes. Solid empirical analysis is necessary for such a task since the final impact of any given public policy on poverty cannot be known a priori; a policy intended to increase the mean income of the population may also change income distribution in either direction. Researchers have experimented with a number of methodological tools to measure the returns to public investment including benefit incidence, labor intensity, regression, and Computable General Equilibrium (CGE) modeling. The authors of Chapters 3 and 4 assessed the impacts of specific public policies on poverty, income distribution, and growth at a regional level

using two of these methods: the cross-country regression and CGE modeling.

Laabas and Limam estimated a simultaneous equation model with three endogenous variables, namely growth, inequality, and poverty, for a sample of 77 countries. The results of this study contested the conventional development prescription that the only viable anti-poverty measures are those promoting growth. Rather, the authors found a high elasticity of poverty with respect to income distribution in their sample, so policies aimed at improving income distribution more effectively reduced poverty than policies meant to increase mean consumption and growth. Growth-promoting policies need to be accompanied by equity-enhancing policies in order to effectively reduce poverty. In addition, government expenditure, transfers, and monetary policies that curb inflation reduced poverty. Policies that support basic necessity production, like cereals, also had a large impact on poverty and income distribution – larger, in fact, than transfers. On the other hand, openness, while promoting growth, was found to have a negative impact on poverty and income distribution. Given the conflicting impact of public policies on growth, poverty, and income distribution, policymakers must choose the right mix of policies with care. However, cross-country regression has its limitation in addressing general equilibrium effects of various public spending and in modeling the opportunity costs of raising public resources.

Thus, Computable General Equilibrium (CGE) models provide a powerful tool to help policymakers better understand the tradeoffs between macroeconomic and microeconomic development hinted but not addressed by Laabas and Limam. CGE models are analytical tools that simulate economy-wide dynamics -- they link macroeconomic structure with microeconomic behavior. They have been widely used to simulate both exogenous and policy shocks on the socioeconomic system and to design public policies to mitigate negative impacts.

In Chapter 4, Babiker provided a road map for how poverty analysis could be conducted using a Computable General Equilibrium framework for a typical Arab country. The components of such a framework include: a database known as a Social Accounting Matrix (SAM), a standard CGE model with a method to capture dynamic effects, a methodology for modeling public policies and measuring poverty, and a set of scenarios describing the future policy environment. The key to poverty analysis using CGE models is the availability of a detailed disaggregation of the household sector and the factors account in the SAM. The author reviewed the available data and poverty-related CGE modeling in the Arab region, and concluded that CGE applications to public policy analysis are relatively recent (starting in the early 1990s), with an almost exclusive focus on trade. Often, the lack of appropriate data permitting the construction of SAMs is a major obstacle hindering broader application of CGE models for the assessment of public policy

interventions in Arab countries. Nevertheless, a number of countries have made progress updating or constructing SAMs for their economies, or have conducted relatively recent household surveys that may be used for CGE analysis of poverty.

All methodological applications will have context-specific strengths and weaknesses when applied at the country-level. To draw these out further, the next section examines the major findings of the multi-level, multi-method analyses of public policy and poverty conducted within five Arab countries.

### ***Major Findings from Country Case Studies***

Case studies were presented for Egypt, Morocco, Sudan, Tunisia, and Yemen. The case countries were selected to reflect some of the diversity of the region: they represent different stages of development and differing types of economies, poverty rates, and reliance on the rural and agricultural sectors. At the same time, the five countries make up half of the Diversified Economies or Primary Export Economies in the region. Poverty is expected to pose a development problem in all of the Arab countries with these types of economies.

#### ***Egypt***

Fan, Al-Riffai, El-Said, Yu, and Kamaly presented the case study on Egypt in Chapter 5. Following a structural adjustment program in the early 1990s, Egypt enjoyed rapid economic growth, with GDP increasing by 4.6% per annum between 1994 and 2004. Nevertheless, poverty remains a significant problem in Egypt today. The national poverty rate was 16.7% in 2000, but poverty was much worse in upper Egypt and rural areas, where many depend on agriculture for their livelihood. Moreover, Egypt still lags behind many middle-income countries in key social indicators. Fortunately, the Egyptian government views public spending as an important instrument for achieving economic growth and equity goals; it has increased investments in transportation and communications infrastructure, education, health, and agriculture since 1980. Historically, a substantial proportion of government spending has also been in the form of expensive universal subsidy programs, which have proved politically difficult to reform. As Egypt pursues macroeconomic adjustments in relation to its limited – even declining – public resources, it is critical to analyze the relative contributions of various expenditures to growth and poverty reduction in order to improve allocative efficiency.

The authors used both econometric analyses and CGE modeling at the household, sector/regional, and macro level to assess the effects of various types of government spending on growth and poverty reduction

and the trade-offs between these two goals. They relied on data from the 1997 Egypt Integrated Household Survey, as well as data from different governorates for the period 1980-2000 and the 1997 SAM for Egypt. The chapter confirmed results from earlier studies finding that universal subsidies are inefficient. Universal subsidies usually achieve their intended goals at a much higher cost than a targeted approach. Targeted social safety nets reduce the fiscal burden and free funds for uses that promote growth and alleviate poverty. Saved government resources can be reallocated toward more productive investments in human capital, infrastructure, and agricultural technology. They are also more equitable, which is of significant importance in the case of Egypt because the existing subsidy program has long been biased toward the higher quintiles. Among all types of targeted programs, direct income transfers, as well as transfers targeted to the aged, women, and children deserve special attention.

Among productive investments, investing in human capital and infrastructure, particularly in rural Egypt, offers the highest return in terms of both economic growth and poverty reduction. Regionally, investment in Upper Egypt would lead to larger poverty reductions because poor people are concentrated there. Investing in agriculture is potentially pro-poor and can contribute to long-term national food security. However, because current trade policy isolates the domestic market and the domestic demand for food is inelastic, increased agricultural production linked to productivity improvements drives down the domestic prices of agricultural goods. As agricultural terms of trade deteriorate under an autarky economy, most of the benefits from agriculture investment are reaped by urban consumers, and the majority of the rural population, as net producers, may suffer. Investing in Egyptian agriculture and rural areas is a must to lift the rural poor out of poverty, but securing market access for increased agricultural exports is a pre-condition for this to happen.

### ***Morocco***

Abdelkhalek and Rockmore presented the case study on Morocco in Chapter 6. Morocco's structural adjustment program and free trade agreements with the U.S. and EU led to significant improvements in macroeconomic indicators since the early 1980s. Yet despite the health of the economy, it has grown only slowly – not enough to reduce unemployment, which nears 20% in urban areas. Poverty also increased between 1990 and 2000. In that year a considerable 17.8% of the population fell below the poverty line, with a wide rural-urban spread (28.2% vs. 9.6%). Low nominal growth was the leading cause of this increase in poverty. In addition, Moroccan society is characterized by a high degree of inequality in both consumer expenditure and access to infrastructure and other public resources. Part of the accumulated deficits in basic infrastructure can be explained by the structure of

government revenue flows. The investment component of the Moroccan budget has generally fluctuated during periods of economic decline, since other budgetary expenses, namely public sector wages and debt servicing, are more fixed. Urban bias in public expenditure has also contributed. At the same time, the government has expanded “priority” social expenditure over the past decade.

The authors used economic and statistical optimization approaches to examine the impact of public policies on the evolution of both household and regional poverty in Morocco. They relied mainly on the 1998/99 National Survey of Household Living Standards (ENNVN). Both socio-demographic and public policy variables affect household well-being in Morocco. In urban areas, a male head of household, a low dependency ratio, employment outside of the home, education, electricity, telephone ownership, and access to water all decrease the likelihood of poverty. In rural areas, policies increasing access to land, infrastructure, and services may decrease poverty, as access to drinking water, owning a telephone, and the area of owned land all increase the rural standard of living. Due to data gaps and unreliability, the results of the regional analysis were only suggestive. However, they showed that poverty eradication requires that a reduction in inequality be paired with economic growth. When growth occurs alone, poverty rates actually increased. At the same time, the reduction of inequality at the regional level is more difficult to achieve than the reduction of poverty. With this objective in mind it is useful to note that increased industrial production decreases inequality while population density and per capita government expenditures that disproportionately favor the non-poor increase inequality.

### ***Sudan***

Chapter 6, authored by Mahran, presented the case study on Sudan. Sudan is emerging out of a long conflict, the reality of which has taken a severe toll on poverty and public investment trends. While real GDP has registered an impressive growth rate of 10.2% between 1990 and 2002, poverty rates are abysmal. Over 90 percent of Sudanese people live in poverty, in both urban and rural areas – one of the highest poverty rates in the world. Adverse weather, weak world agricultural prices, and chronic instability contribute to the extreme poverty. More than half of the workforce is employed in agriculture, which contributed 35% of GDP, but most farms remain rain-fed and susceptible to drought. Moreover, public policy before 1992 exploited the agriculture sector to fund industrial development. In addition, the escalation of the civil war in the south has led to a reduction in foreign aid and a significant increase in the resources devoted to war, at the expense of productive investments. These developments have frustrated previous concerted efforts made to move the economy onto a sustained growth path. The relative economic stability that Sudan has witnessed in recent years has come largely from the advent of oil in the late 1990s.

In light of this endemic poverty, Mahran used a two stage regression approach to identify the most promising public policy and policy-related tools for accelerated poverty reduction in Sudan. In the first stage, province-level data compiled from the 1996 Manpower and Labor Force Survey was used to examine the determinants of poverty (i.e. average income and distribution); in the second stage national-level data compiled from the Bank of Sudan Annual Reports was used to examine the impact of public policy on poverty determinants (i.e. real per capita income). Based on his analysis, the author concluded that policymakers should give more attention to opening the economy for investment, with an emphasis on industry. The emerging oil sector as well as agro-based industry could play instrumental roles in poverty alleviation efforts, if supported with adequate and reliable infrastructure. In addition, like Morocco, Sudan's poverty indices are more responsive to inequality than economic growth. For this reason, public policies geared toward poverty reduction should focus more on improving income distribution. Past income inequality was caused in large part by skyrocketing inflation related to scarcity and production rigidities, so anti-inflationary fiscal policy as well as the reallocation of resources toward productive activities seem to be important to combating inflation. Finally, a number of institutions that help in poverty alleviation could be consolidated.

### ***Tunisia***

Bibi and Chatti considered the case of Tunisia in Chapter 7. Since its independence from French rule in 1956, Tunisia has enjoyed a very successful development trajectory with strong progress in human development. Tunisia's leaders generated broad prosperity by investing in basic education and health services, as well as an effective social security system based on direct transfers to the needy and consumer food subsidies. Since 1995, Tunisia has gradually removed barriers to trade with the EU; Using trade and economic growth to widen people's choices was a primary objective. Today, extreme poverty is no longer a very serious problem in Tunisia, which boasts a poverty rate of about 4.7%.<sup>1</sup> However, economic vulnerability remains an important concern. Nearly 40% of the rural population and 15% of the urban population fall within 200% of the lower poverty line. Agricultural production fluctuations, due to variability in rainfall, account for a major share of rural vulnerability and GDP growth volatility, but with the increased diversification of the economy, this effect has been declining.

The authors conducted a multi-level analysis at the household, regional, and economy-wide scales to capture the likely effects of various types of public expenditure on growth, inequality, and poverty. They drew data from the official publications of the *Institut National de la Statistique*, a

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<sup>1</sup> Based on 2000 data.

1990 household survey, and governorate data from the period 1980-2000.

The results of this study highlighted the trade-offs that exist between policies that lessen poverty in the short-run and those that operate over the long-term. Investments in infrastructure and human capital amplify the positive impacts of growth on the poor, and should thus have a high priority in terms of economic growth. But would the removal of food subsidies to enhance public spending on these be wise? Policies that increase the purchasing power of the poor appear to be more effective in reducing poverty in the short-run than infrastructure, human capital investment, or trade liberalization. Yet, in the long-run, the latter investments accelerate income growth over all segments of the population. Thus, it seems that safety net policies are needed in the short-run to smooth the negative impact of the policy changes that enhance economic growth in the long-run. Conditional cash transfers may be the most effective of such safety net policies. Proxy means tests are also shown to be more effective than targeting by commodities. In this regard, this study conforms to the results from Egypt finding that targeting subsidies greatly improves the allocation of scarce resources.

### ***Yemen***

Chemingui presented the final case study, on Yemen, in Chapter 8. Yemen is among the poorest countries in the world, with a GDP per capita of US\$460. Nearly half of the population lives in poverty. While it has enjoyed reasonably strong economic growth since implementing a structural adjustment program under the IMF in 1995, high rates of population growth have eroded any progress at a per capita level. Following a minor discovery of oil in the south, the share of oil and gas in the economy has increased from 13% to 34% of GDP between 1995 and 2000, while agriculture dropped from 24% to 15% during the same period. Nonetheless, three-quarters of the population is still employed in agriculture or herding. The Yemeni government has shown a recent interest in social sector spending – total public spending in social sectors increased from 41% to 50% of total spending between 1991 and 2001. However, oil and gas revenues account for almost 90% of government revenues, which creates a boom-bust cycle in public finances. The government's ability to finance investments and essential services fluctuates greatly. The government phased out its universal food subsidy in 1999, replacing it with a targeted cash transfer program.

Using data from Yemen's Social Accounting Matrix for 1998, Chemingui built a dynamic-recursive CGE model for Yemen, solved for the period 1998-2016. He compared alternate policy scenarios to assess the impact on economic growth and poverty reduction of increased public spending in the priority areas of agriculture, education, and health. The results of this study highlight the complex channels through which government expenditure conditions an economy for growth and poverty alleviation.

Human capital investments in health and education services are shown to generate more economic growth than investment in agriculture under normal simulation assumptions, a finding which differs from previous studies on returns to public investment. However, if one assumes that health and education spending does not improve productivity in the oil sector because it is a more capital- than labor-intensive sector, then spending on agriculture infrastructure generates the highest return in terms of economic growth, and thus poverty reduction. These results also demonstrate that expenditure priorities are highly country specific, since the differences in this study compared to those conducted by Lofgren or Fan might be explained by the importance of the oil sector in the Yemeni economy.

### ***Lessons Learned***

This section draws out some of the cross-cutting themes observed in the work summarized above.

#### ***1. There is no one-size-fits-all solution***

The sample of case study countries varies widely on such variables as poverty rates, public spending, political stability, openness to trade, and agricultural workforce, partially because they were selected to capture this variation, but more so because the Arab region as a whole is home to a great diversity of economic and political systems. With such diversity, it is ill-advised to seek generalizable development strategies. It has been argued here that public spending is one of the most important tools that governments have at their disposal to promote development and reduce poverty in their countries, almost universally. But the most effective ways to spend public resources will necessarily vary from country to country. The country-level case studies in this book provided important insight into the specific contexts that shape the channels through which public spending facilitates economic growth and poverty reduction. Continuing this type of work, while building the capacity of local researchers and policy advisors to use such tools as CGE modeling will be invaluable to national governments as they pursue poverty reduction goals and strategies.

#### ***2. Agricultural growth is crucial to lift the rural poor out of poverty***

Poverty is largely a rural phenomenon in Arab countries. In all five of the case study countries, rural poverty rates were markedly higher than those found in urban areas. Because the poor are concentrated in rural areas, where the majority of people depend on agriculture either directly or indirectly for their livelihoods, agricultural spending is one of the most

important government instruments for promoting economic growth and alleviating poverty in the region. Targeting government expenditure in rural areas can also make up for long-standing urban and industrial expenditure bias that diminished rural people's access to basic infrastructure and government services in countries like Morocco and Sudan. Agricultural growth may also contribute to poverty reduction in urban areas by lowering food prices for urban residents.

Yet, even within agriculture, there is a wide array of interventions and expenditure categories that must be prioritized. Past studies have found productive investment in the agricultural sector to have a much greater poverty alleviation effect than non-productive investments, such as fertilizer or electricity subsidies. This point is particularly true for agricultural research and development. Agriculture in many Arab countries remains rain-fed and prone to fluctuations from drought, so irrigation may be another priority. Countries in the region should follow Egypt's example of investing heavily in agricultural research centers, as well as in the provision of irrigation and drainage.

At the same time, policy makers must develop agricultural policies that take into account specific national contexts. The case of Egypt is again instructive in this respect. Because of the structure of domestic demand, agriculture spending aimed at increasing agricultural productivity in that country would actually be detrimental to the rural poor unless measures were first taken to increase their access to new markets. Proper sequencing is essential.

### ***3. Broader types of investment in human and physical capital are also needed***

Many countries do need to increase their spending in the agriculture sector, but not in isolation. Arab countries seek broad based growth and this requires investing in human and physical capital such as infrastructure, education, and health. Well-developed and reliable infrastructure is necessary to fully exploit the forward and backward linkages between agriculture and other sectors of the economy so some rural expenditure should be targeted in this area.

Low educational attainment and/or illiteracy of the household head were predictive factors of household-level poverty in every case. Human capital investments, in education, but also in health, improve individuals' abilities to climb out of poverty. They also improve the labor productivity of society in a more aggregate sense, which can generate more rapid economic growth. Moreover, as agriculture declines as a share of economic activity in every country, investing in health and education may actually bring greater returns in terms of poverty reduction over time than investing in agriculture, since the gains to these investments are spread over all sectors of the economy. Yemen may be

one example of such a trend. It is important to note that government expenditures on basic education in developing countries have been found to be more pro-poor than investment in tertiary educational institutions, such as universities, which generally favor the better-off.

#### ***4. Targeted transfers are efficient ways to aid the extreme poor or vulnerable***

While the countries on the whole boast fairly low poverty rates for a developing region, a number of sub-regions or sub-populations in Arab countries are unable to access the growth process, and persist in extreme poverty. Targeting government policies and expenditures more closely to the needs of these populations is both more effective and less costly than universal subsidies.

Consumer subsidies, especially for food and fuel, have been a popular policy tool in Arab countries over the past several decades. However, a large percentage of this type of spending benefits the well-off at the expense of the poor. Despite the underlying social objectives of such programs, on balance, they often cannot be considered pro-poor spending policy. On the other hand, either subsidies or direct cash transfers that are targeted through means tests, proxy means tests, geographical or gender considerations, or in other ways can achieve the intended goals at a lower cost. Saved government resources can be reallocated toward more productive investments in human capital, infrastructure, and agricultural technology.

Also, many Arab countries, such as Morocco and Tunisia, are in the process of opening their markets to international trade. While trade liberalization may have long-term growth benefits, increased openness will undoubtedly increase the vulnerability of some populations in Arab countries. Targeted transfers can smooth the short-run negative impact of policy changes that enhance economic growth in the long-run and ensure that Arab societies share broadly the prosperity from growth.

#### ***5. Diminishing persistent inequality is a difficult but important component of poverty alleviation***

Inequality in income distribution and consumption expenditure is a persistent characteristic of most Arab countries and a large factor in the poverty problem in many of them. High elasticities of poverty with respect to income distribution in many countries suggest that growth-promoting policies need to be accompanied by equity-enhancing policies in order to effectively reduce poverty. This may be a difficult task to accomplish. In the Moroccan case, it was actually easier to reduce poverty than income inequality at the regional level. But taking measures to decrease inequality can be seen as a win-win solution for

policymakers. While decreasing inequality is an important objective in itself, it is also good for growth because it allows poor people to participate in the growth process and to demand more of the economy's goods and services. Policies that have been shown to increase equity include anti-inflationary fiscal policy, investment in human and physical assets for the poor, policies that enable the poor to participate effectively in the labor markets, and social safety nets (transfers) for the extremely poor and vulnerable.

### ***Knowledge Gaps and Future Research Directions***

The existing literature on public spending and poverty reduction is rich, and this book adds a much needed perspective on the topic for the Arab region. However, much remains unknown. The following discussion points out a few potential research areas that would enrich the study of public policy and poverty reduction in Arab countries, and in the developing world more broadly.

**(1)** Arab countries must prioritize the systematic compilation of public investment data. Various international agencies such as the World Bank, FAO, and IMF have made efforts to help developing countries establish national statistical systems to collect, monitor, and present development indicators related to agriculture production and inputs, income, employment, wages, and poverty. But these efforts seldom include rural infrastructure, technology, education, and related government investment. There is also a lack of gender-disaggregated data. Without such information, it is difficult to comprehensively assess the impacts of government intervention on growth and poverty reduction. In addition, wherever possible, countries should invest in the development of current Social Accounting Matrices (SAMs) to enable economy-wide analyses that accurately estimate the overall impact of public investment on poverty. Obviously, data collection in situations of political instability and war such as in Sudan involves a more complex set of issues.

**(2)** Analysis of the political and institutional contexts in which public investment is allocated and disbursed is essential to understanding the final impacts of public policy on poverty. While policymakers may believe the evidence presented to them by researchers on the best uses of public resources, political realities may dictate a different outcome. In particular, research on how to overcome historical urban biases in investment as well as how to reform public institutions by improving incentives, accountability, and management would be valuable.

More generally, studying a region's development in isolation from its larger political context does not necessarily yield fruitful results. High poverty rates are not the reason that the Arab region appears daily on

the front page of major western newspapers. As the United Nations report on progress towards the MDGs noted, “war and conflict in the region continue to destroy resources and the social fabric of society while diverting Government budgets toward military expenditure (UNDP, 2005).” Acknowledging the geopolitical security concerns that many governments in the region are grappling with would bring an important perspective to the study of social welfare.

**(3)** Research needs to be done on the political economy of devolution and decentralization of power in infrastructure provision and problems of common property rights. In addition, the theories implicit in new institutional economics suggest that pricing policies and subsidies in infrastructure expenditure need further research. The potential of trans-boundary, regional cooperation in the provision of infrastructure for transport, energy, and water management would be a fruitful area for future investigation.

**(4)** High unemployment coupled with rapid labor force growth, especially among the young, educated, and women, is widely considered one of the most pressing challenges facing countries in the years to come. Conducting public expenditure analyses that explicitly consider employment as a primary outcome variable would be highly valuable in this context.

**(5)** Finally, gender-sensitive analysis may yield important insights into the study of poverty reduction in the Arab region. Many of the Arab countries are Muslim societies where the empowerment and rights of women vary to a great degree. Evidence suggests that gender discrimination leads to less rapid economic growth and poverty reduction than that found in more equitable societies.<sup>2</sup> Public policy may be key to enhancing women’s social standing, access to resources, and power in important economic sectors such as agriculture, but understanding the nuances of this will require sensitive, country-specific investigation.

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<sup>2</sup> See King and Mason (2001), and UNDP (2006) for discussion.

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