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Expanding Youth Employment in the Arab Region and Africa



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Joachim von Braun and Chiara Kofol

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http://www.globalmarshallplan.org/sites/default/files/imce/download_files/2016-11-denkschrift-bundesregierung.pdf

Abstract

The low level and adverse trends of youth employment in Africa and in the Middle East in the last decade are key driving factors of poverty, stress migration, frustration and political instability. There needs to be a sense of urgency to change the situation. How can employment, especially for youth, be created rapidly in these regions? The paper discusses different policies for the generation of mass employment of both skilled and unskilled labor. The sectoral priorities differ within the regions, with rural and agricultural jobs playing a more significant role in Sub-Saharan Africa (SSA). Both SSA and the Arab region show potentials for largescale public works programs. Un-orthodox economic policy actions are called for due to the pressing nature of the youth unemployment situation. These policies should aim at generating productive employment improving skills, and can be implemented both at the central and at the local level. Countries should be responsible for ownership, accountability and self-monitoring of policies and programs. Large scale international funding support should be considered when planning, implementation and supervision are actually credible and results oriented.

Keywords: youth employment, human capital, labor policies

1 Introduction

The already high rates of youth unemployment in countries of the Arab region and Sub-Saharan Africa are expected to increase further due to an expanding labor force and due to a slowdown in economic growth (ILO, 2016). The World Employment and Social Outlook 2016 of the ILO indicates that 38 percent of the youth in Sub-Saharan Africa and 28 percent of those in Northern Africa and the Arab States, would like to migrate in 2015 (ILO, 2016). Creating youth employment is a challenge, even more so if the aim is to create jobs rapidly (Betcherman et al. 2007). In the last decade both African and Middle Eastern countries addressed this policy challenge by making use of Active Labor Market Programs (ALMPs) and other policies (such as education policies and agricultural ones).

This paper contributes to the current debate on youth unemployment in the developing world by identifying opportunities and lessons to learn from different countries and suggesting policy recommendations. The article summarizes recent trends, challenges and policies in three regions, where the youth unemployment problem and gender differences are most severe: Sub-Saharan Africa (with examples from Burkina Faso, Ethiopia, Kenya, Senegal, Tanzania), North African countries (Algeria, Egypt, Libya, Morocco, Tunisia) and the Middle East (e.g. Afghanistan, Iran, Iraq).

Investing in youth employment could improve economic growth and lead to social inclusion and poverty reduction. Broecke (2013) suggests that one of the main triggers of the Arab Spring in 2010/11, which was followed by complex political change across the MENA region, could be graduate unemployment. Kapsos (2013) suggests that even in the aftermath of the North-African uprisings, graduate unemployment continues to be a major cause of social unrest. Consequently, both local governments and the ILO made it a priority in their "Call for action" at the International Labor Conference held in June 2012 (ILO; 2012) that this issue should also be included in the Sustainable Development Goals (SDGs) of the 2030 Development Agenda.

The World Development Report (World Bank, 2012) describes the recent twin challenges, which consist in re-allocating people to better jobs and in creating jobs for millions of new job seekers. The need for creation of new jobs is related to the sustained labor force growth such as in Sub-Saharan Africa adding about 8 million people every year. Also in the last decade, structural and technological changes are causing a rural-urban shift that translates into higher supply of wage labor. Moreover, international migration is changing both the size and the composition of the labor force in many countries. Labor migration is caused by opportunities and employment deficits across borders and it increasingly targets the service sector.

Job creation is necessary in order to provide employment opportunities for new labor market entrants. In theory, a positive correlation between GDP growth and employment growth should exist. However, empirical evidence shows that the African Mediterranean countries have recently experienced jobless growth (Angel et al. 2010). A similar pattern can be observed in Sub-Saharan Africa that experienced a GDP growth of about 4.5%, yet insufficient job creation between 2000 and 2012 (Filmer & Fox, 2014). Labor force has been growing faster than the economy, employment creation in the public sector has stagnated in many Arab Mediterranean Countries (AMC) as a consequence of reform of the civil service; private investment rates in AMCs remained low since 1985; labor regulation is perceived as a constraint to employment creation in many AMCs. Economic growth may also be due to an improvement of economic sectors, which are capital rather than labor intensive, such as services and energy.

In this paper, we refer to youth as young people between 15-24 years old. This is also the definition given by the International Labor Organization (ILO, 2015). When quantifying youth employment, we will look at the employment-to-population ratio, a standard indicator used by the ILO. Section 2 highlights the recent youth employment trends and structure; Section 3 provides an overview of the policies aimed at increasing youth employment in the three regions of interest distinguishing those for educated youth from those for the unskilled. Section 4 summarizes the conclusions and the policy recommendations.

2 Troubles in the Youth Employment Structure and Recent Trends

2.1 Youth under-employment patterns and trends

Both the Middle East, Arab-Mediterranean Countries (AMCs), and Sub-Saharan Africa face important youth employment challenges. Figures 1-4 below show the trends of the youth employment-to-population shares by gender from 2000 to 2014 according to the ILO estimate based on recent World Bank data.

We choose to focus on three Middle-Eastern countries, i.e. Afghanistan, Iran and Iraq, because of data availability issues. Figure 1 shows quite low employment-to-population ratios in all these three countries. When looking at male employment-to-population shares in the region in Figure 1a (upper chart), on average, only about 40 percent of the population (in the age group 15-24) is employed in 2014. The trends have been quite constant over time, except in Iraq, where male youth employment was affected by the war in 2003-2004. The level of the employment-to-population shares is heterogeneous across countries: Iraq has the lowest employment-to population share (about 30 percent), while Afghanistan has the highest (about 50 percent) in the region.

The gender difference in the ratios is quite striking across the whole region: Figure 1b (lower chart) shows that in both Afghanistan and Iran only about 10% of females between 15-24 years are working, while in Iraq the percentage is even lower (around 2 percent).

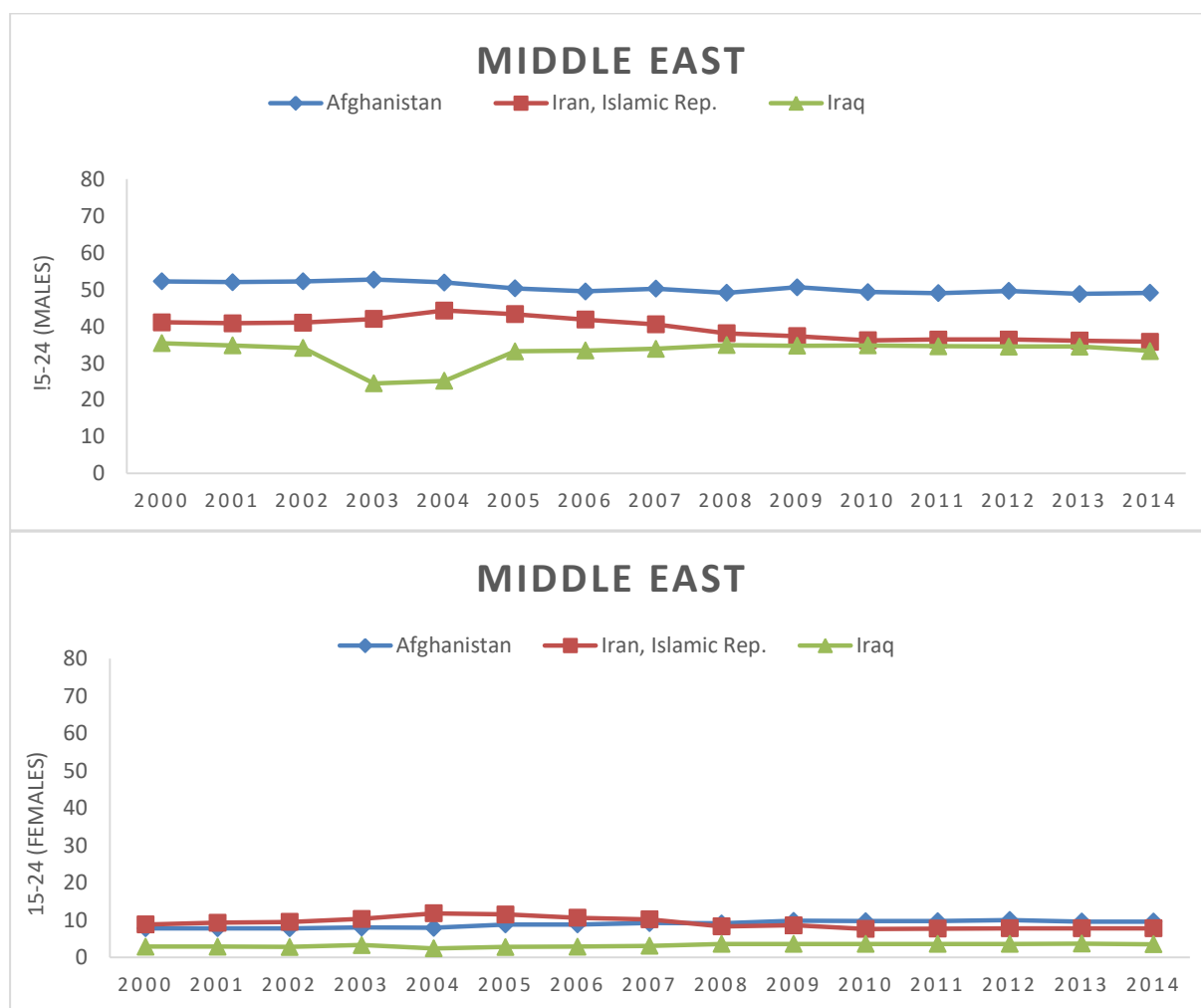
The data shows similar patterns in North Africa (Algeria, Egypt, Libya, Morocco, and Tunisia). Figure 2 below shows quite low employment-to-population ratios. Male employment-to-population shares in the region (as shown in Figure 2a), on average, are only about 40 percent of the population between 15-24 years. In this region, the trends have been quite constant over time since 2005 even if during and after 2011 a dip in youth employment occurred, due to the political instability in the region. An exception is Egypt, where the employed-to-population-ratios slightly decreased further by almost 10 percentage points between 2010 and 2014.

The level of the employment-to-population shares is diverse across countries. Morocco has the highest male employment-to-population share (about 50 percent), while Tunisia has the lowest (about 30 percent) in the region. The gender difference in the ratios again is quite striking across the whole region: Figure 2b shows that in 2014 the average female youth employment-to-population ratio in this region is lower than about 10 percent. In Morocco only about 20 percent of females between 15-24 years old are working, while in Algeria the percentage is even lower (around 5 percent).

Countries in Sub-Saharan Africa (Burkina Faso, Ethiopia, Kenya, Nigeria, Senegal, Tanzania) show greater heterogeneity both in the levels of employment-to population shares and in the trends between 2012 and 2014 (see Figure 3) below. Male employment-to-population shares in the region is shown in Figure 3a (upper chart). On average, again, only about 50 percent of the population between the age group 15-24 are employed in 2014. The level of the employment-to-population shares is diverse across countries. Senegal, Tanzania and Ethiopia are those with the highest shares of employment in 2014 (about 70 percent), while Nigeria and Kenya have lower ratios (about 35 percent). These striking differences are due to the fact that in countries such as Ethiopia the gross school enrolment rate in 2014 was quite low (about 35%), while in Kenya was very high (about 75%; World Bank, 2014).

Figure 1: Employment to population ratio by gender (based on ILO estimates and data from World Bank)

Panel A: Males, Panel B: Females



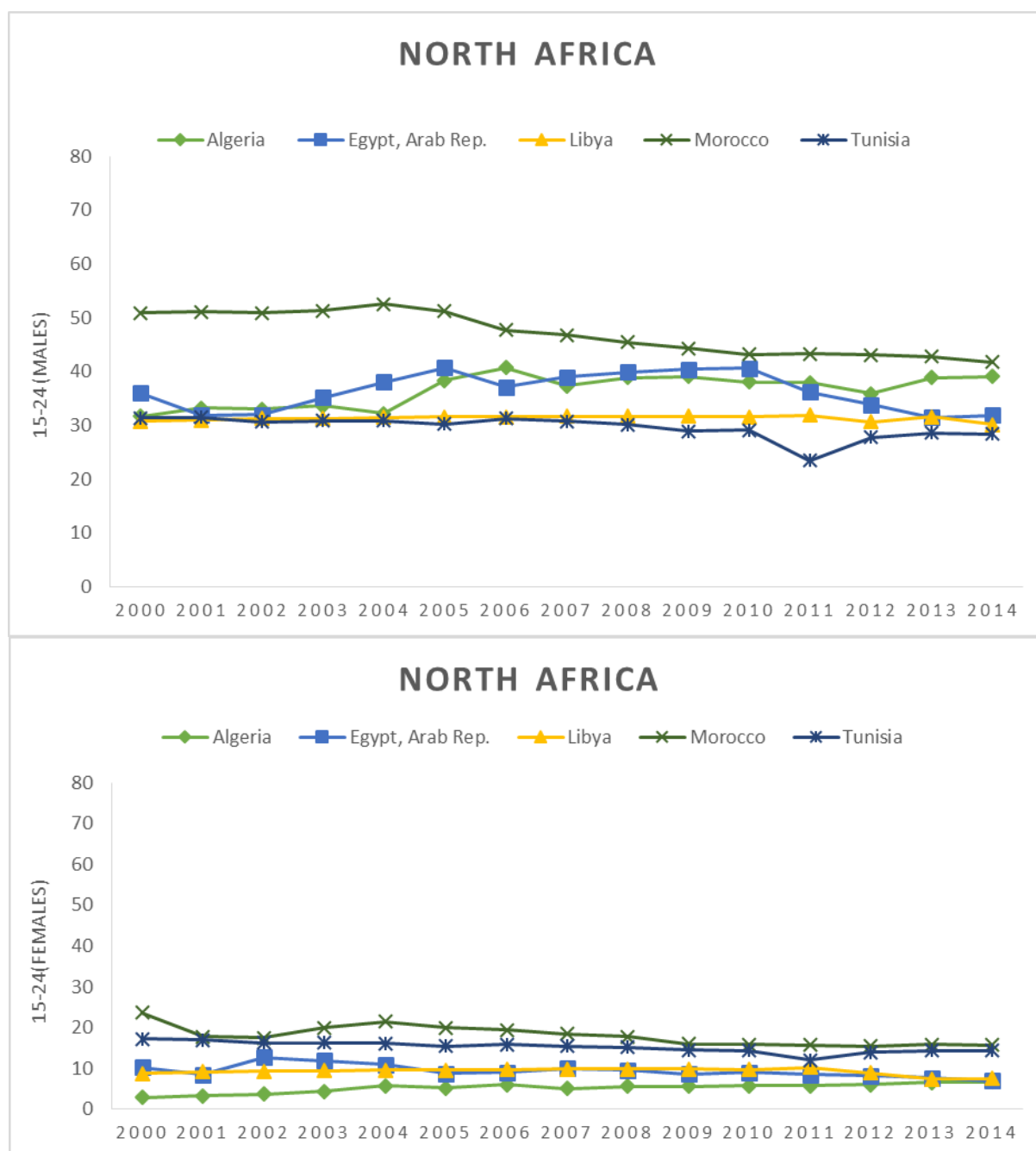
Source: ILO, 2014

The gender difference in the ratios is less considerable across this region when compared with the one in North Africa and the Middle East. Figure 3b (lower chart) shows that in 2014 the average female employment-to-population ratio in the region is about 45 percent. Senegal is the country with highest gender difference in employment shares with a difference of about 30 percentage points.

Finally, we provide a comparison of the youth employment share with some European countries (Italy, Spain and Greece), where youth unemployment is highest within the EU (OECD, 2016). Figure 4 shows that both male and female youth employment-to-population shares trended downwards in the last decade, especially since 2009, when labor markets were hit by the financial crisis. In these countries, on average, only between 20 and 30 percent of young people between 15 and 24 years old are employed.

Figure 2: Employment to population ratio by gender (based on ILO estimates and data from World Bank)

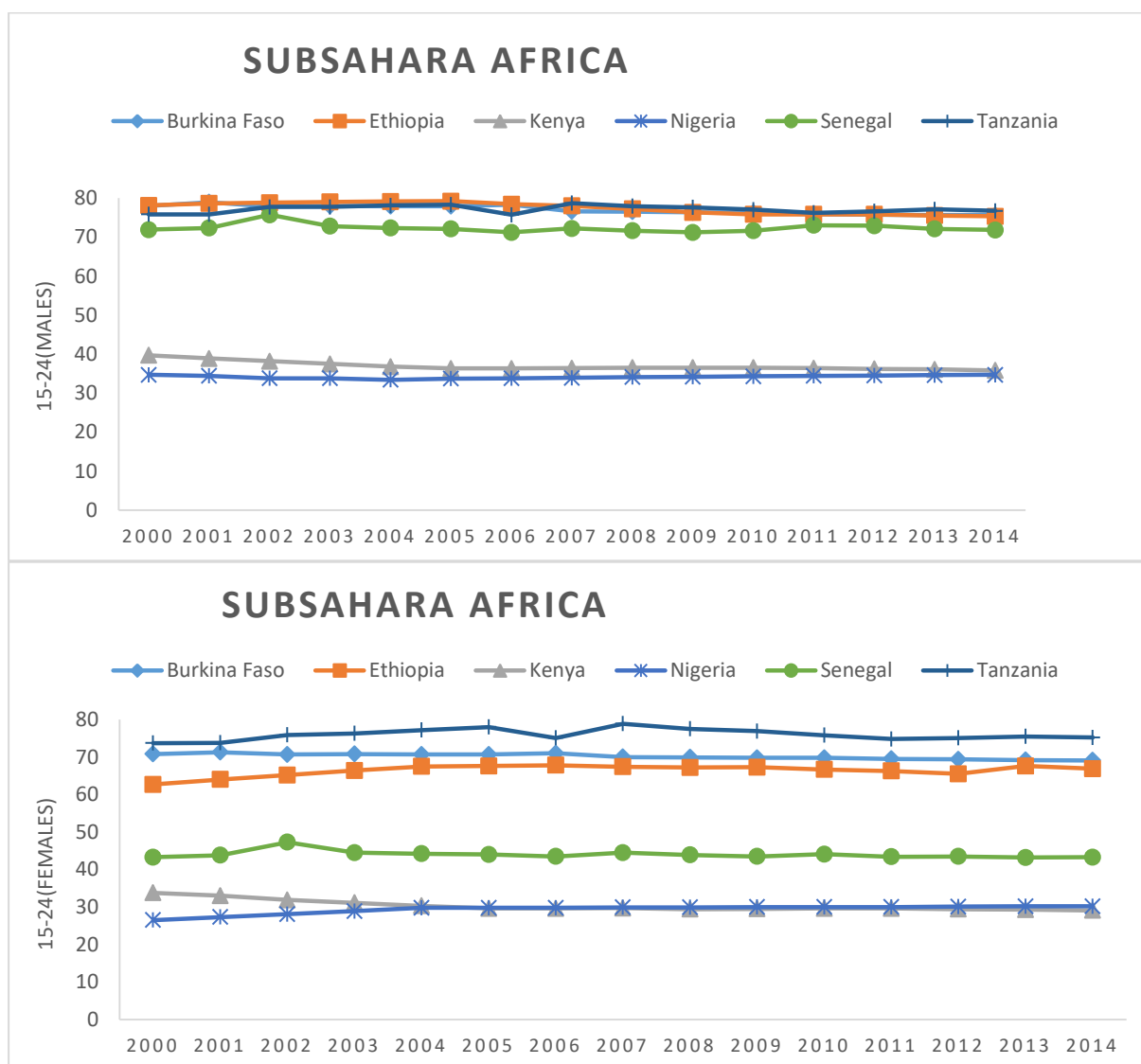
Panel A: Males, Panel B: Females



Source: ILO, 2014

Figure 3: Employment to population ratio by gender (based on ILO estimates and data from World Bank)

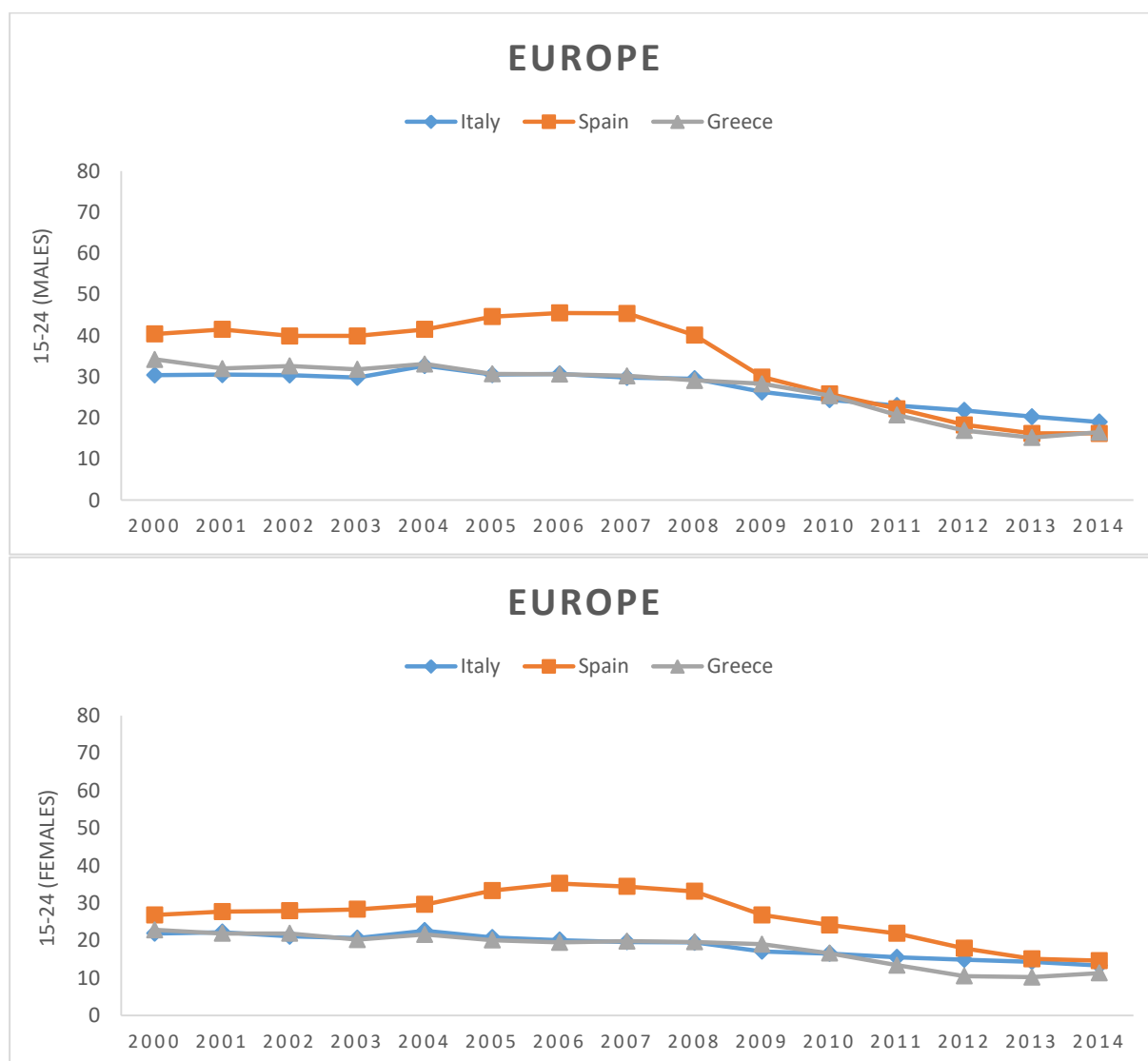
Panel A: Males, Panel B: Females



Source: ILO,2014

Figure 4: Employment to population ratio by gender (based on ILO estimates and data from World Bank)

Panel A: Males, Panel B: Females



Source: ILO, 2014

2.2 The role of agriculture and other sectors

Africa's recent GDP growth has been quite high. However, strong economic growth has failed to generate sufficient productive employment (Arbache & Page, 2010). The statistics shown above can be analyzed also by looking at the economic sector break down of the employment-to-population shares. This information is relevant in order to shape public policies aimed at increasing employment rates and to explain the differential trends in GDP growth and employment to population rates.

Table 1: Employment share in economic sectors (% of total employment)

1a Egypt

Sectors	2008	2010	2012
<i>Agriculture</i>	31.6	28.3	27.1
<i>Industry</i>	23.1	25.4	24.8
<i>Services</i>	45.3	46.3	48.1

1b. Morocco

Sectors	2008	2010	2012
<i>Agriculture</i>	40.9	40.2	39.2
<i>Industry</i>	21.8	22.2	21.4
<i>Services</i>	37.3	37.6	39.4

1c Ethiopia

Sectors	2008	2010	2012
<i>Agriculture</i>	77.2	76.2	75.4
<i>Industry</i>	8.4	8.9	9.4
<i>Services</i>	14.5	14.8	15.2

(ILO, 2014)

Table 1a shows that in Egypt the economic sector with the lowest employment-to-population ratios in 2012 is industry (about 25 percent), while the one with the largest share is services (about 50 percent). The trends of the shares over time are quite constant. Table 1b shows that in Morocco the economic sector with the highest employment-to-population ratios in 2012 are both agriculture and services (about 39 percent), while the one with the lowest share is industry (about 20 percent). The difference in employment shares across economic sectors are instead more striking when looking at Ethiopia in Table 1c. The data shows that in Ethiopia the economic sector with the highest share of employment is agriculture, with an average share of about 76 percent between the years. The industry sector accounts for the lowest share (average of about 9 percent). The data shows a slightly decreasing trend in the share of the labor force employed in the agricultural sector and a promising trend for the service and industry sector.

Agriculture is a main source of youth employment in sub-Saharan Africa (Deon & Fox, 2014). The role of the agricultural sector is heterogeneous across Sub-Saharan Africa, North Africa and the Middle East. The current literature highlights the importance of the agricultural sector especially in Sub-Saharan Africa. Increasing productivity in agriculture (removing the barriers for the commercialization of agricultural products combined with agricultural extension, land reform, secure property rights and de-regulation aimed at increasing productivity) should be a priority. This allows freeing up labor to work in rural off-farm employment. Filmer (2014) also points out that agricultural productivity growth and improvements in food security have not been considered yet as complementary policies to increase youth employment. However, the sectoral decomposition in countries such as Egypt suggests that a high GDP growth might correspond to a low employment share because of a low share of the industry sector, which is usually characterized by a high level of employment intensity.

In sum, most employment creation in North Africa and the Middle East has occurred in low-productivity/informal sector activities in the service sector. Private sector dynamism suffers from unpredictable policy changes, deficient implementation and poor access to credit, and distort input prices thereby increasing the relative cost of labor (Angel et al. 2010). Skills mismatches due to lack of training and education play key roles. It would be important to improve understanding of the

potential interventions that might help overcome the considerable gender differences in the labor markets. Globally, less than 50 percent of women have jobs, but almost 80 percent of men do. These differences cannot be explained by education, experience or sector of work (World Bank, 2012). Women in most of the countries with low female employment are largely either employed in the informal sector or work in households. Overall, there are four common features across the regions:

1. Youth employment rates in these countries are low by international standards.
2. The trends of youth employment to population shares are stagnant or even negative over the last decade.
3. Women are usually less likely to be employed and many are excluded from the labor market.
4. High employment is concentrated in services, which tend to be low productivity economic activities.

3 Policies for Youth Employment

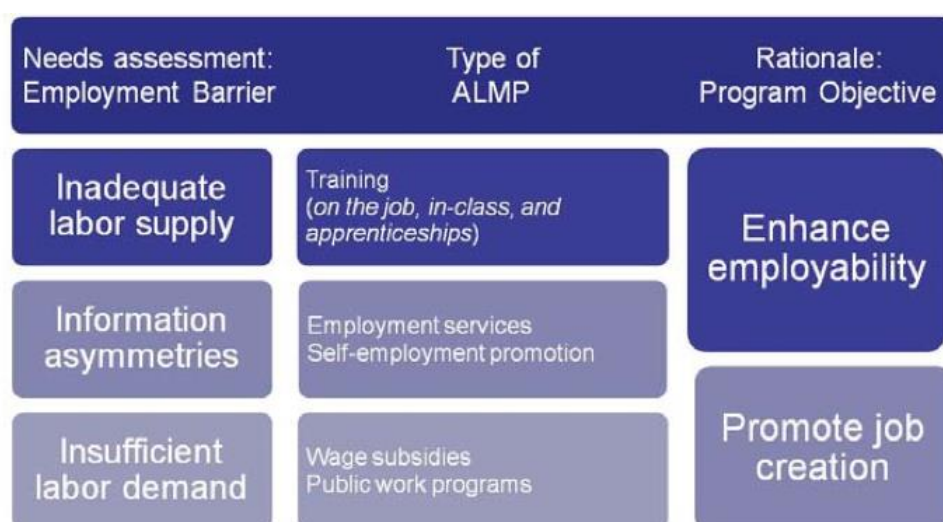
3.1 Conceptual overview

In order to tackle youth unemployment, governments can adopt two different types of interventions:

- (i) Direct; Active Labor Market Policies (ALMPs);
- (ii) Indirect; such as education policies, trade policies.

Direct interventions. According to Angel et al. (2010) who provide a quite recent inventory of the non-public provision of ALMPs in Arab-Mediterranean countries, ALMPs can be grouped into broad categories as shown in Figure 5. In practice, ALMPs are used to either enhance employability (employment services, labor market training) and to promote job creation (wage subsidies, public works and self-employment promotion).

Figure 5: ALMPs categories by employment barrier



Source: Angel et al., 2010

The main characteristics of programs (following Angel et al. 2010) are:

Vocational Training: Training programs are the most widely used active labor market measure. Their objective is to increase participants' employability and productivity providing skills and credentials, providing relevant work experience if training occurs on-the-job, and allowing employers to pre-test potential workers;

Wage subsidies: They consist of financial incentives for sustaining and creating jobs in the private sector. Wage subsidies provide financial incentives to employers to hire new workers and/or to maintain the jobs of workers who otherwise would have been dismissed. Financial incentives are either provided directly (through direct wage subsidies) or indirectly (through social security waivers and reduction in labor taxes);

Public Works: also known as workfare programs, have been widely implemented both as safety net interventions and ALMPs. They have been introduced with diverse objectives, such as support in times of large covariate shocks (they will be discussed in the last section of this document).

Self-Employment Promotion: These policies aim at promoting entrepreneurship.

Indirect interventions. The World Development Report (World Bank, 2012) highlights the importance of indirect policies to impact on labor markets. Policies to improve access to finance, infrastructure and aspects of regulation (such as taxation and unfair competition) are determinants for private sector jobs creation. Rules for international trade, foreign direct investments and migration agreements are instead useful instruments to deal with these international spillovers. Finally, there is also a strong link between human capital and jobs: good nutrition, health and education can increase productivity and open job opportunities (World Bank, 2012).

In the following paragraph, we distinguish policies aimed at increasing youth employment by *skilled and educated youth*, and *unskilled youth*.

3.2 Employment policies for the educated and skilled youth, a cross-country comparison.

Youth employment interventions are more widespread in Sub-Saharan Africa and the West African sub-region rather than in the North Africa sub-region (ILO, 2012). However, most of the evidence available with regard to policies for the educated youth relates to North African countries. The only evidence available for the Middle East, to the best of our knowledge, is for Jordan.

The educated youth and employment trends are quite heterogeneous across countries and there is a lack of a systematic evaluation of youth employment programs. In **Tunisia** recent policies aimed at increasing the employment of graduates consists in both wage subsidies and training opportunities. The impact of these policies had small effects in absolute terms. Among the employment programs for educated workers available in 2011 some programs aimed at supporting active job search through information, coaching and internships, for example, the *AMAL (Programme de Recherche Active d'Emploi au Profit des Diplomes de l'Enseignement Supérieur)*. This program is targeted at graduates who are looking for a first job and who have been unemployed for more than 6 months. Hilger and Belghazi (2013) suggest that the AMAL program should be phased-out to new beneficiaries as open-ended unemployment assistance discourages people to actively look for a job and is hardly financially sustainable. Also the *SCV (Service Civil Volontaire)* had a similar purpose. This program aims at increasing employability through internships and part-time work in community services. The target of the policy are first-time job seekers who are higher educated graduates. Other Tunisian programs are focused on the provision of training. *SIVP (Stage d'Initiation à la Vie Professionnelle)* has the aim of helping beneficiaries to acquire professional skills to increase the chances of finding a job. . The target of the intervention were Tunisian first-time job seekers and university graduates, the duration was up to 12 months. Broecke (2013) evaluated the impact of Tunisia's SIVP program. Treated individuals were found less likely to be unemployed and more likely to have found a job in the private sector. However, the results may be biased because of selection into the program, which is not random. Similarly, *CIDES (Contrat d'Insertion des Diplomes de l'Enseignement Supérieur)* helps beneficiaries to obtain professional skills by attending training programs either in the private or public sector. The target of the intervention are graduates of higher education who have been unemployed for more than two years since obtaining the diploma.

Other programs in Tunisia make use of employment subsidies such as *PC50 (Prise en Charge par l'état d'une Part des Salaires Versés)*. This intervention subsidizes companies by paying half of the wage of higher education graduates for a year. The target of the program are first-time job seekers with higher education and recently created companies located in regional development zones, operating in high-value-added-activities with a strong knowledge component. Premand et al. (2012) show that entrepreneurship training could represent a solution to youth unemployment. Undergraduates in the final year of *licence appliquée* could choose to graduate with a business plan. The findings show that this opportunity was effective in increasing self-employment among applicants even if the effects are small in absolute terms.

In **Egypt** the major issue with educated youth unemployment is that young graduates tend to queue for public sector employment. However, Assaad (2008) shows that educated youth unemployment decreased between 1998-2006 due to demographic reasons, slowdown in government hiring, and acceleration of employment growth in the private sector. Hilger and Belghazi (2013) summarize some of the employment programs recently available for skilled workers in Egypt. The available evidence shows that there were no policies directly targeting educated youth, but mostly programs available to both, high and low skilled job seekers. Some programs such as the *Most-needed jobs for the job market (quarterly program)*, the *National employment bulletin* and *Local recruitment agencies* help individuals in the phase of the job search. Others aim at regularizing employees with the informal sector and incorporate them into the formal sector. The intervention is targeted both at semi-skilled and high-skilled workers. Assaad (1997) provides an evaluation of the impact of two policies: the employment guarantee for graduates and the public sector compensations on the Egyptian labor market. The results show that these policies actually decrease graduate employment as public sector becomes more appealing for young graduates who increase their unemployment spells queueing for them.

In **Morocco**, as in Egypt, a cause for graduate unemployment is the tendency to queue for jobs in the public sector. Boudarbat (2005) confirms this based on analyses of data from the 1998 Moroccan labor force survey. The results show that workers are willing to stay unemployed for longer periods hoping to obtain jobs in the public sector. Some of the programs available for educated youth are:

Idmaj. This is a program that offers intermediation with private sector enterprises. The program is targeted at higher education graduates, registered as unemployed for more than 6 months;

Taehil. It is an intervention that provides training for the labor market and labor market integration. The program is targeted at persons with a high school diploma registered as unemployed;

Moukawalati. It is a self-employment support policy which provides a loan if the business project is eligible for funding. The intervention is targeted at young graduates (below 45 years old), registered as unemployed, with an innovative business idea.

In **Algeria** another issue arises when looking at graduate unemployment. Stark and Fan (2011) suggest that the prospect of employment abroad causes involuntary "educated unemployment at home" and that a government that is concerned about this issue might therefore be expected to encourage unemployed educated people to migrate and will elect to restrict the extent of migration of educated individuals. No evaluation of employment programs for young educated people is available so far.

Some evidence about employment programs for educated youth in the Middle-East region is available for **Jordan** but, to our best knowledge, not for Afghanistan, Iran and Iraq. In Jordan in 2008-09 the public employment program, *Employment Support for ICT Graduates*, supports the employment of first-time job seekers who are graduates in information and communication technologies (ICT) with both an unemployment subsidy and training (Hilger and Belghazi 2013). The intervention is targeted at holders of bachelor's degree or diploma in ICT who graduated less than two years ago and who have never been employed before. Another program is the *Employment Support for Male Nursing Graduates* which provides employment subsidy for male holders of bachelor's degree or diploma in nursing.

In sum, the North African countries have some experience with employment policies for educated youth. The impact is however limited. Scale of reach is not sufficient, and there are not enough incentives. A much more comprehensive approach is needed. Experiences in the region should be shared more, and international investment support should be expanded to address this fundamental problem of youth in the region.

3.3 Employment policies for the unskilled at large scale

Policies aimed at targeting poverty by creating jobs at large scale have already been used in the past. However, they need to be revisited. A major point of reference for the role of the Government in creating job opportunities is historically represented by the Poor Employment Act of 1817 in Great Britain (Flinn 1961). Other experiences are available for India and some African countries in the 1980s (von Braun 1995, Dev 2011). Early development theories (Lewis 1954; Fei and Ranis 1964) studied how to increase the employment rate. However, development theory failed to account for the importance of human resources, given the assumption of homogeneous capital and labor (Schultz 1981). Quite recently, several African countries adopted the African Youth Charter (2006) and the ILO (2012) proposals for Youth Employment Interventions in Africa (Mapping Report).

In this section we develop policy proposals for large scale employment programs to quickly address the underemployment of low-skilled, low income people and of youth in particular. We relate to the current challenging employment situation in the Middle East and Africa Regions discussed above, and draw on historical experiences and on current program experiences, for instance Ethiopia (Hoddinott et al. 2012) as well as outside the regions of our focus, for instance India (Dev 2011; Narayanan & Gerber 2016). We argue that a new approach is needed to rapidly expand employment. The justification on economic grounds should take a broad perspective, as the ripple effects of underemployment for political instability and social frustrations are large and not easily quantifiable.

Examples of large scale Employment Programs in Selected Countries

China 1980-90s

- Implementation was effective because of the strong ability of planning
- Monetization of food and other commodities worked well.
- Poor areas were well-targeted, but not the poorest people in these areas.

India 2010s

- Nation-wide program of rural employment guarantee
- Self-selection of poor with low wage.
- Flexible program size (employment guarantee) and large coverage, a plus for addressing transitory poverty.

Ethiopia 2010s

- Growing coverage of “Productive safety net program” with public works
- Relevant in food security-risk situations, such as droughts
- Scope for food wages in case of widespread food deficiencies.

The employment policies for the unskilled can be grouped in three broad categories: (i) active labor market policies (ALMPs), (ii) Education and training policies, (iii) Policies for productive agricultural job creation (such as jobs in farming and food processing), and (iv) large scale public employment programs.

3.3.1 North Africa and the Middle East – a focus on ALMPs and training

In **Tunisia** programs include *CRVA (Contrat de Reinsertion dans la Vie Active)*: it allows unemployed people with at least three years’ experience in the same company to get new skills to be eligible for job offers in the private sector. *CAIP (Contrat d'Adaptation et d'Insertion Professionnelle)*: The

objectives of the programs are to help beneficiaries to get a job in a private company. The target of this program were unemployed persons without higher education and it consisted of a 12-month internship.

In **Egypt** publicly funded interventions for lower-educated workers can be mentioned, even if they are not explicitly targeted at young individuals (Said, 2015).

Hilger and Belghazi (2013) mention the *Infatih* program in **Morocco**, which targets young people from 18 to 40 years old with children up to 14 years old from rural areas and provides job placements abroad. The evaluation of the program was positive and showed that more than half of the treated individuals financially benefited from the policy.

The same study describes a few public employment subsidy programs in **Jordan**, targeted at young people, especially long term unemployed (more than four months), *employment support for agricultural workers* with education below the secondary diploma, young unemployed job seekers (*Waged employment Program 2009*), and unemployed youth with a focus on women (*Satellite Units 2008*). However, the performance indicators seem to suggest that these programs were not very effective as drop-out rates were high as a result of employees being unsatisfied with working conditions. Ianchovichina (2013) points at the opportunities for infrastructure investment for direct and indirect job creation of about 2.5 million jobs. However, he points out that the effectiveness of job creation from infrastructure will depend on the quality of targeting and on cost subsidies as well as on the effectiveness of (re)training programs.

3.3.2 Sub-Saharan Africa – a focus on agriculture and rural employment

The demographic transition in sub-Saharan Africa, i.e. the increase in the number of young people, can be an opportunity for growth. An empirical assessment of youth employment policies in sub-Saharan Africa is provided by Johanson et al. (2004) which includes 20 country reviews and 70 case studies. The main conclusions that emerge from the review are that: (i) attention to the informal sector is important as it is the outside option for those who don't find other employment; (ii) Tanzania, Zambia and South Africa are carrying out important Vocational Education and Training programs reforms; (iii) public training cost-effectiveness is still an issue.

Exploiting the role of *farming* could offer opportunities while the local and regional demand for food is high. Filmer (2014) suggests exploiting more immediate opportunities in family farming and *household enterprises* rather than focusing on wage employment. The *policy priorities* for addressing youth employment are: (i) *Increasing human capital*: improving the quality of education and offering training programs as the rapid increase in the number of children completing primary school did not directly translate in an increase of cognitive and soft skills. This was due to service inefficiencies (such as the absenteeism of teachers). (ii) *Removing constraints to agriculture*: agriculture is the sector that could generate quick income for young people but agricultural productivity growth and improvements in food security have not been considered yet as complementary policies to increase youth employment. Moreover, proper land policies are needed in order to make property rights secure and clear. (iii) *Removing constraints to businesses* such as credit and financial constraints given the risky environment and the lack of collateral.

Blattman et al. (2012) provide an experimental evaluation of one of Uganda's largest development programs aimed at improving entrepreneurship opportunities. The intervention consists in providing cash transfers to thousands of young people that could be invested in a business activity. The results suggest that after two years the hours of employment outside the household doubled and that households were earning about 50% more than those in the control group. Also, the findings suggest that poor access to credit is a major impediment to start these activities without development assistance. The lessons from this program should be explored elsewhere in Africa.

3.3.3 *Large Scale Public Employment Programs in Africa and Middle East*

Currently, much focus is on subsidizing capital rather than investing in productive employment for the poor. Recently, however, many countries adopted more developmental policies for poverty reduction. Cash transfer programs were implemented in the 1990s for instance in Mexico and more than 30 countries followed in the past decade. The employment trends considered in the three regions discussed above suggest the necessity of a greater focus on employment policies to reduce poverty. The trends suggest that:

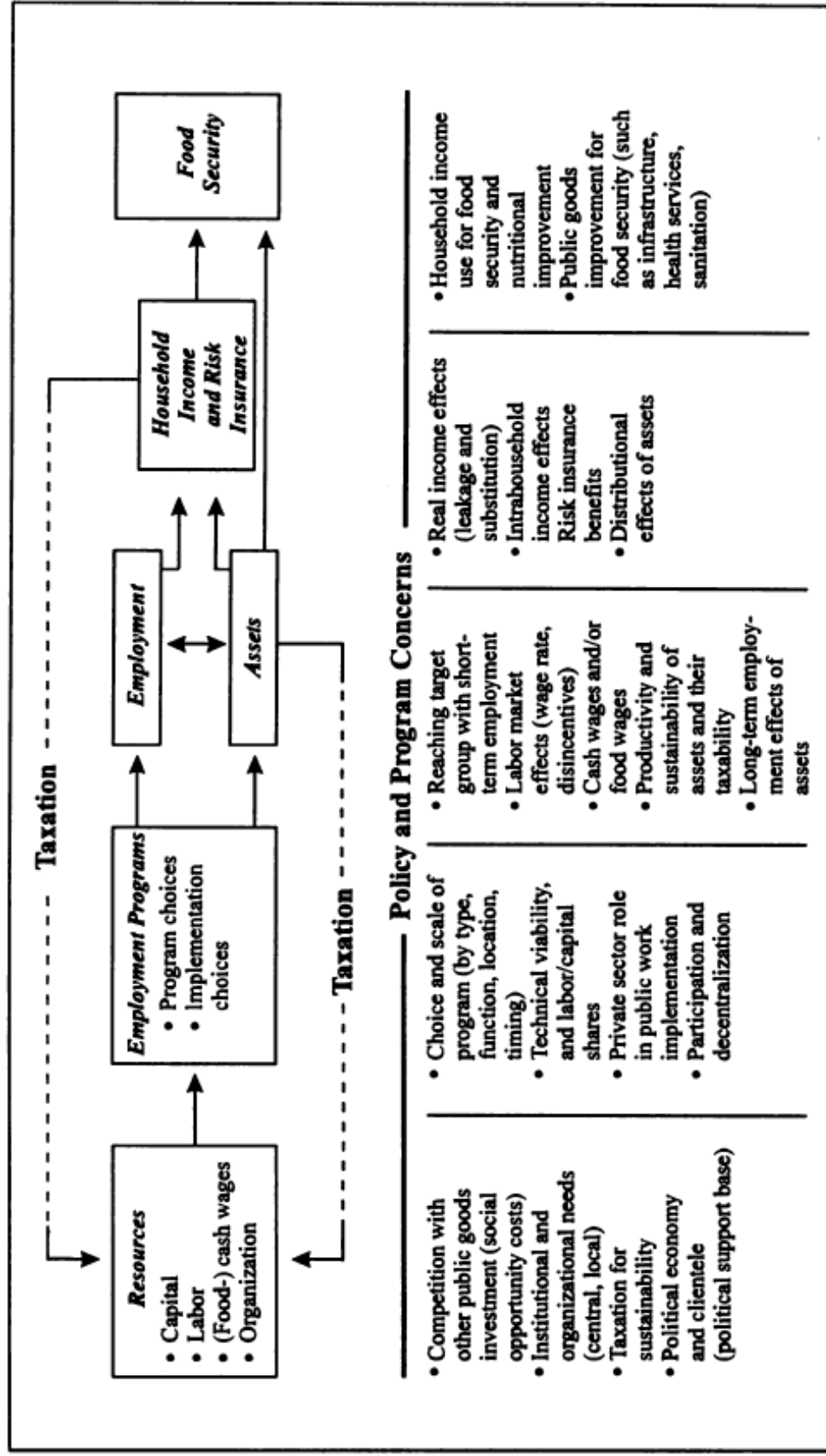
- The labor force is increasing more rapidly now than it has in the past.
- The growth rate of employment is lagging behind economic growth.
- Scarcity of land combined with population growth further limits the earnings of the rural poor from farming.
- Especially in Sub-Saharan Africa, the lack of infrastructure is slowing down economic development. Labor-intensive public works may address that with a win - win.

Employing new labor force to reconstruct areas destroyed by past civil unrest can represent an opportunity to create jobs. Development-oriented strategies for poverty reduction aim at directly benefiting the poor as well as increasing poor people's productivity through services such as education, public health, and skill enhancing measures. Education programs are expected to have long-run effects, whereas employment programs can be effective in the short-run. Employment programs are not the sole solution to poverty reduction, but they represent an important component of economically sustainable poverty eradication policies. Labor-intensive employment programs have both transfer benefits and stabilization benefits, decreasing the risk of consumption shortfalls among the poor. **Figure 6** lists some of the linkages and opportunities related to these policies.

The necessary characteristics of effective labor-intensive employment programs are shown on the left-hand side of Figure 6: investment capital (for asset creation), labor, wage payments, and organizational capabilities. It is important to highlight here that investing resources in employment programs rather than in alternative policies should be valued at their economic returns to society (social opportunity costs). In the very long run, employment programs should become economically sustainable, as they should generate new taxable income. In addition, private assets generated through these employment programs – for instance irrigation infrastructure – should be taxed and generate extra government revenue. The opportunity to create assets through employment programs distinguishes them from social transfers and makes them tools to achieve sustainable development. The sustainability of these programs largely depends on the management of the public sector budget, enhancing the importance of development cooperation in low-income countries.

Employment programs are successful (i) if they reach the poor and (ii) if they actually benefit the poor. Thus, the wage level of these programs is critical to targeting effectiveness (von Braun 1995, Subbarao 2003). Another important characteristic of employment programs is the design of benefits. Benefits could be an outcome, such as better short-term food security or the generation of assets that will make it possible to achieve food security. Finally, it is important that employment programs are implemented by personnel with adequate technical and managerial skills and that there is respect for the broad requirements for sound program evaluation.

Figure 6: Design of Large Scale Employment Programs to Address Poverty



Source: Adapted from von Braun, Teklu, and Webb 1991.

Source: von Braun 1995

We distinguish between three different **types of large-scale employment programs** according to purpose and sense of urgency:

1. Core programs aimed at generating high quality assets using labor-intensive technology in the long run.
2. A second set of programs with the purpose of generating assets in order to absorb quickly large quantities of labor, incl. stabilizing the seasonal variations in labor demand in rural areas. Examples of these interventions are land development, forestry, and similar programs. The share of labor in these activities tends to be twice as high as that in road programs, for instance.
3. A third domain of programs aims at increasing employment fast by addressing large-scale poverty and relief needs. These programs include employment around relief camps, prevention of large-scale migration, or the burgeoning unemployment in slums around urban centers that often follows an emergency.

All these program components should be considered in Africa and the MENA region, depending on country circumstances. The related lessons from China and India should be kept in mind. A multitude of labor-intensive public works programs were tried in Africa in the past, for instance in Nigeria, Niger, Senegal, Botswana (von Braun 1995). A revitalization of such programs at large scale should now be considered. The organizational capacities have improved in past decades, and on that basis large scale employment programs can play a more promising role.

4 Conclusions and Policy Recommendations

We highlighted the huge current issues related to youth unemployment in Africa and the Middle East. The last decade has been characterized by low and decreasing employment-to-population ratios. Not addressing the youth employment issue comprehensively has already large social and political costs, undermining peace and security.

Fresh thinking and **un-orthodox employment policy action** is called for. Such action would entail sound planning in each country, ownership and accountability for programs and policies, responsibility for self-monitoring by the countries themselves, as was the case in the erstwhile Marshall Plan after World War II, which actually had included several developing countries. Large-scale international support should be considered, but implementation and evaluation capacities must be strengthened simultaneously. For the **low skilled youth**, lacking higher education, large-scale public employment programs should be considered while investing in improved education and skills. Yet, all these programs need to be considered in a context of broader economic policy reform and not in isolation (Yousef 2004).

More specific policy recommendations can be summarized as follows:

- (i) In order to increase the employability of the unskilled and low educated youth, **wage subsidies**, although considered unpopular on grounds of “Ordnungspolitik” (i.e. regulatory regimes and strategic policies), should be considered for temporary implementation at scale. Employment subsidies to companies but also via labor-intensive public works would lower the cost of jobs. They should not necessarily be permanent but time bound.
- (ii) **Vocational training programs** offered to young graduates should be fostered in cooperation with companies. Certification of obtained skills will help with later job search in the broader labor market;
- (iii) Well-designed **job-search services** should be provided as they have shown high positive impact on youth employment in the short run;
- (iv) **Women** should be much more supported to enter the labor force. Making their low participation to the labor market a public policy issue would help the transition to less gender inequality beyond the labor market;
- (v) In Sub-Saharan Africa, the **agricultural sector** is a big source of employment for youth. Policies aimed at improving security of property rights and investment in innovation for higher agricultural productivity are key to creating better jobs;
- (vi) **Involving the private sector** in youth employment policies is critical, especially for the school-to-work transition. This would require incentives for companies' participation (such as employment related tax relief);
- (vii) **Remittances from migrants** should be directed to labor intensive investments by specific banking and investment policies in urban and rural areas;
- (viii) Correcting **macro policies**, such as exchange rate distortion in resource-cursed countries (such as oil rich countries) should be addressed by incentive-oriented policies for agriculture and industry to overcome the problem of low pay service sector work.
- (ix) In conflict-ridden states **reconstruction**, economic integration and social policies, such as jobs as an incentives to lay down weapons, could play a positive role.

5 References:

- Angel Urdinola, D.F., Semlali, A. and Brodmann, S., 2010. Non-public provision of active labor market programs in Arab-Mediterranean countries: an inventory of youth programs. World Bank.
- Arbache, J.S. and Page, J., 2010. How fragile is Africa's recent growth? *Journal of African Economies*, 19(1), pp.1-24.
- Assaad, R., 1997. The effects of public sector hiring and compensation policies on the Egyptian labor market. *The World Bank Economic Review*, 11(1), pp.85-118.
- Assaad, R., 2008. Unemployment and youth insertion in the labor market in Egypt. HK Eddin, *The Egyptian Economy: Current Challenges and Future Prospects*, pp.133-178.
- Betcherman, G., Godfrey, M., Puerto, S., Rother, F. and Stavreska, A., 2007. A review of interventions to support young workers: Findings of the youth employment inventory. World Bank Social Protection Discussion Paper, 715.
- Blattman, C., Fiala, N. and Martinez, S., 2012. Employment generation in rural Africa: mid-term results from an experimental evaluation of the Youth Opportunities Program in Northern Uganda.
- Boudarbat, B., 2005. Job-search strategies and the unemployment of university graduates in Morocco. In IZA-EBRD Conference on Labour Market Dynamics, University of Bologna, May.
- Broecke, S., 2013. Tackling graduate unemployment in North Africa through employment subsidies: A look at the SIVP programme in Tunisia. *IZA Journal of Labor Policy*, 2(1), p.1.
- Deon, F., L. Fox 2014. Youth Employment in Sub-Saharan Africa (Africa Development Forum). World Bank, Washington DC
- Dev, S.M. 2011. NREGS and Child Well-being, Working Paper 4, Indira Gandhi Institute of Development Research, Mumbai.
- Fei, J. C. H., and G. Ranis. 1964. Development of the labor surplus economy: Theory and policy. New Haven, Conn., U.S.A.: Yale University Press.
- Filmer, D. and Fox, L., 2014. Youth employment in sub-Saharan Africa. World Bank Publications.
- Flinn, M. W. 1961. The Poor Employment Act of 1817. *Economic History Review* 14: 82-92.
- Hilger and Belghazi, A. and Belghazi, S., 2013. Building effective employment programs for unemployed youth in the Middle East and North Africa. World Bank Publications.
- Hoddinott, J., Berhane, G., Gilligan, D.O., Kumar, N. and Taffesse, A.S., 2012. The impact of Ethiopia's Productive Safety Net Programme and related transfers on agricultural productivity. *Journal of African Economies*, 21(5), pp.761-786.
- Ianchovichina, E., 2013. Job creation through infrastructure investment in the Middle East and North Africa. *World development*, 45, pp.209-222.
- International Labor Office (ILO), 2016. World Employment and Social Outlook. Trends for Youth
- International Labor Office (ILO), 2015 Global Employment Trends for Youth 2015: Scaling up investments in decent jobs for youth
- International Labor Office (ILO), 2012. Youth Employment Interventions in Africa: A Mapping Report of the Employment and Labour Sub-Cluster of the Regional Coordination Mechanism (RCM) for Africa / International Labour Organization-Regional Office for Africa. Addis Ababa: ILO, 2012
- International Labor Office (ILO), 2014. "Global Unemployment Trend".
http://www.ilo.org/global/research/global-reports/global-employment-trends/2014/WCMS_234879/lang--en/index.htm (accessed on January 20, 2017)
- Johanson, Richard K., and Arvil V. Adams. Skills development in sub-Saharan Africa. World Bank Publications, 2004.
- Kapsos, S., 2013. Global Employment Trends for Youth. United Nations, Department of Economic and Social Affairs, Population Division.

- Lewis, A. 1954. Economic Development with Unlimited Supplies of Labour. The Manchester School. Volume 22, Issue 2. May 1954. Pages 139–191
- Narayanan, S. and Gerber, N., 2016. Social safety nets for food and nutritional security in India. Available at SSRN 2714389.
- OECD 2016: "Youth Unemployment Rate". <https://data.oecd.org/unemp/youth-unemployment-rate.htm> (Date accessed January 20, 2017)
- Premand, P., Brodmann, S., Almeida, R., Grun, R. and Barouni, M., 2012. Entrepreneurship training and self-employment among university graduates: evidence from a randomized trial in Tunisia. World Bank Policy Research Working Paper, (6285).
- Said, M., 2015. Policies and Interventions on Youth Employment in Egypt. Torino: ETF.
- Schultz, T. W. 1981. Investing in people: The economics of population quality. Berkeley, Calif., U.S.A.: University of California Press.
- Stark, O. and Fan, C.S., 2011. The Prospect of Migration, Sticky Wages, and "Educated Unemployment". Review of International Economics, 19(2), pp.277-287.
- Subbarao, K., 2003. Systemic shocks and social protection: role and effectiveness of public works programs. Social Protection, World Bank.
- von Braun, J. ed., 1995. Employment for poverty reduction and food security. Intl Food Policy Research Institute.
- World Bank, 2012. World development report 2013: Jobs. Washington, DC: World Bank.
- Yousef, T.M., 2004. Development, growth and policy reform in the Middle East and North Africa since 1950. The Journal of Economic Perspectives, 18(3), pp.91-115.

1. Evers, Hans-Dieter and Solvay Gerke (2005). Closing the Digital Divide: Southeast Asia's Path Towards a Knowledge Society.
2. Bhuiyan, Shajahan and Hans-Dieter Evers (2005). Social Capital and Sustainable Development: Theories and Concepts.
3. Schetter, Conrad (2005). Ethnicity and the Political Reconstruction of Afghanistan.
4. Kassahun, Samson (2005). Social Capital and Community Efficacy. In Poor Localities of Addis Ababa Ethiopia.
5. Fuest, Veronika (2005). Policies, Practices and Outcomes of Demand-oriented Community Water Supply in Ghana: The National Community Water and Sanitation Programme 1994 – 2004.
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9. Fuest, Veronika (2005). Partnerschaft, Patronage oder Paternalismus? Eine empirische Analyse der Praxis universitärer Forschungsk Kooperation mit Entwicklungsländern.
10. Laube, Wolfram (2005). Promise and Perils of Water Reform: Perspectives from Northern Ghana.
11. Mollinga, Peter P. (2004). Sleeping with the Enemy: Dichotomies and Polarisation in Indian Policy Debates on the Environmental and Social Effects of Irrigation.
12. Wall, Caleb (2006). Knowledge for Development: Local and External Knowledge in Development Research.
13. Laube, Wolfram and Eva Youkhana (2006). Cultural, Socio-Economic and Political Constraints for Virtual Water Trade: Perspectives from the Volta Basin, West Africa.
14. Hornidge, Anna-Katharina (2006). Singapore: The Knowledge-Hub in the Straits of Malacca.
15. Evers, Hans-Dieter and Caleb Wall (2006). Knowledge Loss: Managing Local Knowledge in Rural Uzbekistan.
16. Youkhana, Eva; Lautze, J. and B. Barry (2006). Changing Interfaces in Volta Basin Water Management: Customary, National and Transboundary.
17. Evers, Hans-Dieter and Solvay Gerke (2006). The Strategic Importance of the Straits of Malacca for World Trade and Regional Development.
18. Hornidge, Anna-Katharina (2006). Defining Knowledge in Germany and Singapore: Do the Country-Specific Definitions of Knowledge Converge?
19. Mollinga, Peter M. (2007). Water Policy – Water Politics: Social Engineering and Strategic Action in Water Sector Reform.
20. Evers, Hans-Dieter and Anna-Katharina Hornidge (2007). Knowledge Hubs Along the Straits of Malacca.
21. Sultana, Nayeem (2007). Trans-National Identities, Modes of Networking and Integration in a Multi-Cultural Society. A Study of Migrant Bangladeshis in Peninsular Malaysia.
22. Yalcin, Resul and Peter M. Mollinga (2007). Institutional Transformation in Uzbekistan's Agricultural and Water Resources Administration: The Creation of a New Bureaucracy.
23. Menkhoff, T.; Loh, P. H. M.; Chua, S. B.; Evers, H.-D. and Chay Yue Wah (2007). Riau Vegetables for Singapore Consumers: A Collaborative Knowledge-Transfer Project Across the Straits of Malacca.
24. Evers, Hans-Dieter and Solvay Gerke (2007). Social and Cultural Dimensions of Market Expansion.
25. Obeng, G. Y.; Evers, H.-D.; Akuffo, F. O., Braimah, I. and A. Brew-Hammond (2007). Solar PV Rural Electrification and Energy-Poverty Assessment in Ghana: A Principal Component Analysis.

26. Eguavoen, Irit; E. Youkhana (2008). Small Towns Face Big Challenge. The Management of Piped Systems after the Water Sector Reform in Ghana.
27. Evers, Hans-Dieter (2008). Knowledge Hubs and Knowledge Clusters: Designing a Knowledge Architecture for Development
28. Ampomah, Ben Y.; Adjei, B. and E. Youkhana (2008). The Transboundary Water Resources Management Regime of the Volta Basin.
29. Saravanan.V.S.; McDonald, Geoffrey T. and Peter P. Mollinga (2008). Critical Review of Integrated Water Resources Management: Moving Beyond Polarised Discourse.
30. Laube, Wolfram; Awo, Martha and Benjamin Schraven (2008). Erratic Rains and Erratic Markets: Environmental change, economic globalisation and the expansion of shallow groundwater irrigation in West Africa.
31. Mollinga, Peter P. (2008). For a Political Sociology of Water Resources Management.
32. Hauck, Jennifer; Youkhana, Eva (2008). Histories of water and fisheries management in Northern Ghana.
33. Mollinga, Peter P. (2008). The Rational Organisation of Dissent. Boundary concepts, boundary objects and boundary settings in the interdisciplinary study of natural resources management.
34. Evers, Hans-Dieter; Gerke, Solvay (2009). Strategic Group Analysis.
35. Evers, Hans-Dieter; Benedikter, Simon (2009). Strategic Group Formation in the Mekong Delta - The Development of a Modern Hydraulic Society.
36. Obeng, George Yaw; Evers, Hans-Dieter (2009). Solar PV Rural Electrification and Energy-Poverty: A Review and Conceptual Framework With Reference to Ghana.
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46. Saravanan V.S. (2009). Dancing to the Tune of Democracy: Agents Negotiating Power to Decentralise Water Management.
47. Huu, Pham Cong; Rhlers, Eckart; Saravanan, V. Subramanian (2009). Dyke System Planing: Theory and Practice in Can Tho City, Vietnam.
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49. Reis, Nadine; Mollinga, Peter P. (2009). Microcredit for Rural Water Supply and Sanitation in the Mekong Delta. Policy implementation between the needs for clean water and 'beautiful latrines'.
50. Gerke, Solvay; Ehlert, Judith (2009). Local Knowledge as Strategic Resource: Fishery in the Seasonal Floodplains of the Mekong Delta, Vietnam

51. Schraven, Benjamin; Eguavoen, Irit; Manske, Günther (2009). Doctoral degrees for capacity development: Results from a survey among African BiGS-DR alumni.
52. Nguyen, Loan (2010). Legal Framework of the Water Sector in Vietnam.
53. Nguyen, Loan (2010). Problems of Law Enforcement in Vietnam. The Case of Wastewater Management in Can Tho City.
54. Oberkircher, Lisa et al. (2010). Rethinking Water Management in Khorezm, Uzbekistan. Concepts and Recommendations.
55. Waibel, Gabi (2010). State Management in Transition: Understanding Water Resources Management in Vietnam.
56. Saravanan V.S.; Mollinga, Peter P. (2010). Water Pollution and Human Health. Transdisciplinary Research on Risk Governance in a Complex Society.
57. Vormoor, Klaus (2010). Water Engineering, Agricultural Development and Socio-Economic Trends in the Mekong Delta, Vietnam.
58. Hornidge, Anna-Katharina; Kurfürst, Sandra (2010). Envisioning the Future, Conceptualising Public Space. Hanoi and Singapore Negotiating Spaces for Negotiation.
59. Mollinga, Peter P. (2010). Transdisciplinary Method for Water Pollution and Human Health Research.
60. Youkhana, Eva (2010). Gender and the development of handicraft production in rural Yucatán/Mexico.
61. Naz, Farhat; Saravanan V. Subramanian (2010). Water Management across Space and Time in India.
62. Evers, Hans-Dieter; Nordin, Ramli, Nienkemoer, Pamela (2010). Knowledge Cluster Formation in Peninsular Malaysia: The Emergence of an Epistemic Landscape.
63. Mehmood Ul Hassan; Hornidge, Anna-Katharina (2010). 'Follow the Innovation' – The second year of a joint experimentation and learning approach to transdisciplinary research in Uzbekistan.
64. Mollinga, Peter P. (2010). Boundary concepts for interdisciplinary analysis of irrigation water management in South Asia.
65. Noelle-Karimi, Christine (2006). Village Institutions in the Perception of National and International Actors in Afghanistan. **(Amu Darya Project Working Paper No. 1)**
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