

Promoting Productive and Sustainable Employment: Elaborating a Knowledge and Research Agenda¹

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by

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1. Introduction and background

This note provides a brief overview of current research and knowledge on employment trends and employment creation in sub-Saharan Africa. The aim is to reflect on our present state of knowledge, identify gaps in our knowledge and understanding, and to contribute to evidence-based policy debates. The emphasis is on the productive and sustainable nature of employment, rather than on the quantity of labour demand, or the rate of unemployment. This is a result of the specific situation in Sub-Saharan Africa (SSA), where the employment problem is more one of job quality, than job quantity. The employment problem does not primarily manifest itself as open unemployment, but as vulnerable and low quality employment. Open unemployment is scarce in Africa, but very large numbers of the working population are employed in agricultural and the informal service sector where productivity is low and there is a high degree of job vulnerability.

Definition of productive employment

The concept of productive employment has three important dimensions: remuneration, stability of employment and working conditions.

Following ILO (2009), we define productive employment as employment yielding sufficient returns to labour to permit workers and their dependents a level of consumption above the poverty line. According to this definition, whether a person is productively employed depends on the income from labour; the intra-household dependency ratio (i.e. the number of people depending on the income); the labour income of other employed members of the household, and other non-labour household incomes. The following indicators are currently used to measure productive employment: 1. labour productivity growth (measured as annual change in GDP per person employed); 2. employment-to-population rate (proportion of a country's working-age population that is employed); 3. proportion of the employed population living on less than US\$1.25 a day (the working poor); 4. the proportion of own-account and unremunerated workers (e.g., contributing family workers) in the employed population (vulnerable workers).

We use the term “vulnerability” to refer to work with highly fluctuating and uncertain returns, and without a stable and secure relation between employer and employee. Vulnerability is an important aspect of unproductive labour. It is a typical characteristic of the informal sector.

The expression “decent work” completes the definition of “productive employment” by adding to the income component a component related to the conditions of work such as absence of coercion (no slavery, no child labour), equity at work (equity of conditions and opportunities for all workers), security at work (health, pensions, security against job loss), and dignity of work (Anker et al., 2002). Decent work also means decent working hours, i.e. not have to work more than 48 hours per week (ILO, 2012).

The term “sustainable employment” is difficult to define independently of productive employment, and it may not be needed as a separate category. Here, we use the term to refer specifically to reduced job vulnerability, but as such we understand it to be a part of productive employment, not an alternative concept.

Growth but insufficient productive employment creation

Despite rapid growth in many sub-Saharan African countries over the past fifteen years, there is widespread concern that this growth has not created sufficient productive employment to lift large numbers of the population out of poverty (Kapsos, 2005; ILO, 2013; McKinsey, 2012; Fox and Sekkel Gaal, 2008). Vulnerable employment has not decreased sufficiently in SSA. The proportion of workers in vulnerable employment (defined as own-account and contributing family workers)

decreased from 83% in 1991 to 82% in 2000 and 77% in 2012. But these are still very high rates, comparable only to those of South Asia (ILO, 2013; UNECA, 2005).

Access to productive employment is essential for inclusion of the poor in society. Productive employment does not only provide the poor with better incomes, it also stimulates learning and skills acquisition. The insight that poverty reduction and social inclusion are linked to economic development via improved job creation and productive employment represents an important shift in our thinking about socio-economic development (see Kremer et al. 2009).

Economic growth may create productive employment by means of a combination of rapid growth of output, innovation and upgrading, productivity increases and optimal utilization of abundant labour. Structural change, i.e., shifts of employment between sectors, may promote productive employment by a shift towards more dynamic and high productivity sectors that can absorb labour and provide jobs of better quality. In present day Africa, the production structure in many African economies is unbalanced, with an undue reliance on exploitation of natural resources that cannot provide sufficient productive employment. There has been insufficient structural change, among others as a result of premature deindustrialization (Tregenna, 2013).

Changes and transformations in wide society may also play a large role in generating productive employment. Some of this comes under the heading of “inclusive innovation”, which is a term that we use to describe technological, organizational, and social innovation that lifts parts of the population out of poverty.

The role of employment policy

Employment creation depends on changes in productive capacity and economic structures, but also on supporting policies. Policies can provide incentives for better use of abundant labour resources and enhance the productive capacity of the labour force through the development of human capital or policies supporting innovation and technological upgrading. Employment policies should be seen as part of a much wider range of industrial policies, innovation policies, and economic policies promoting both economic development and productive employment creation.

2. Overview of existing research on employment creation in Africa

2.1. Nature and size of the employment problem in sub-Saharan Africa

The unemployment rate in the SSA has been around 7.6% in the past 5 years (ILO, 2013), which seems to suggest that only a small fraction of the working-age population is outside the labour market. Whether these figures are sufficiently trustworthy is itself an interesting area of research, but, as noted already, we are not so much interested in open unemployment, but rather in vulnerable, low quality, employment.

There has been a shift away from agriculture to other sectors, mainly services, but little expansion of manufacturing employment. The African service sector is more productive than subsistence agriculture, but less productive than manufacturing. In the service sector, employment tends to take the form of self-employment or family businesses, rather than wage employment. Thus, it is also characterized by high degrees of informality, and therefore high degrees of job vulnerability. Wage employment, instead, is more likely in manufacturing, whose employment share has been shrinking in the last decades and in the public sector. Adjustment policies in the 1990s have resulted in losses of formal jobs in the public sector (Fox and Sekkel Gaal, 2008). This is one reason why, despite high economic growth, vulnerable employment has not significantly decreased in SSA.

According to Fox and Sekkel Gaal (2008), with a growing workforce and not enough formal jobs created, job seekers resort to the informal sector (e.g., Sekwati and Narayana, 2011 and World Bank, 2011 for Botswana; Palmer, 2007 for Ghana; Luebker, 2008 for Zimbabwe; Pollin, 2009 for Kenya; Kweka and Fox, 2011 for Tanzania). In Africa, the informal sector is mostly made up out of very small-scale non-agricultural activities, with employment characterized by self-employment or employment in a family business. In all countries a large segment of the informal sector is involved in the provision of a broad range of services such as barbering, repair, food service, street vending and other trading activities, and telecoms (mobile phone kiosks or cards). A defining characteristic of the informal sector is that activities are non-registered. In consequence even when informal enterprises employ wage labourers, these workers have no formal protection.

According to African Economic Outlook 2012, employment is largely a problem of quality in low income countries (LICs) and one of quantity in middle income countries (MICs). In LICs, young people work mainly in the informal sector, where wages are low and labour is of low quality. In MICs, the informal sector is small and the formal sector is too small and demands high skills, so high-skilled workers compete for too few jobs while there are also insufficient jobs for low-skilled workers.

Youth unemployment

More than two thirds of the population of Sub-Saharan Africa is under 25 years of age in 2010 and this percentage is expected to increase in the next decades (Page, 2012). 60% of Africa's unemployed are young, and youth unemployment rates are double those of adults in most African countries. In fact, even in countries where the youth unemployment rate is relatively low, it is often more than twice as high as the national average. A very high proportion of young persons is poor: on average 72% of the youth population in Africa has to live on less than \$2 per day. Young people often work in the informal sector and are less likely to be wage-employed or self-employed (World Bank, *Africa Development Indicators* 2008/2009). A large youth cohort can also yield opportunities, if policies can help to get advantage of the demographic dividend resulting from having a larger share of the population at working-age. In this regard, investments in human capital and policies to reduce the skill mismatch are essential (Garcia and Fares, 2008; UNECA 2011a; African Economic Outlook, 2012).

2.2. Differences in conditions

Policy debates on creation of productive employment should take differences of conditions in sub-Saharan Africa into account. Collier and O'Connell (2008) distinguish three categories of countries: (i) High opportunity coastal, resource-scarce countries (ii) low opportunity land locked resource-scarce countries (iii) resource rich countries. UNECA (2011b) suggests that we categorize countries according to the geographical characteristics (resource endowments, landlocked, non landlocked) and demographic characteristics (population size, density, age composition). UNCTAD (2011) classifies countries by their level of industrialization in 2010 and growth performance between 1990 and 2005. The report distinguishes (i) forerunners, (ii) achievers, (iii), catch up countries (iv) falling behind countries, (v) infant countries. The 2013 World Development Report distinguishes agrarian, urbanizing and formalizing countries; countries with high youth unemployment and aging societies; resource-rich countries and small island countries; and conflict-affected countries.

2.3. Availability of data on employment

Data availability about employment is a serious constraint to research and analysis (DIAL, 2007; World Bank, 2013). Data on employment normally derive from three main sources: labour force surveys, production surveys (agricultural surveys, surveys of manufacturing, service sector surveys) and household surveys. Labour force surveys provide most information about employment conditions,

remuneration, hours worked, labour market participation, and so forth. Production surveys have the advantage that output and employment figures are from the same source, allowing for productivity analysis, but they do not provide complete information about national employment trends and are usually restricted to larger enterprises. Surveys of informal sector firms are held only very infrequently. Household surveys are important for linking employment conditions to individual and household poverty, but they also do not provide sufficient detail on employment, its sectoral distribution and employment trends.

In many SSA countries labour statistics simply do not exist. Regularly repeated labour market surveys are only held in Mauritius, South Africa, and Tanzania. In all other countries surveys are held irregularly, sometimes with long intervals, so that it is almost impossible to chart trends in employment. Where data are available there are important issues with regard to the statistical quality. Labour force surveys are often not harmonized with industrial surveys. There is insufficient information about the nature of work in the informal sector, especially with regard to underemployment and youth employment. There is an increasing wealth of micro-datasets for Africa (e.g. Brilleau et al., 2005; van Biesebroeck, 2005; Rankin et al., 2006; Söderbom et al., 2006; Arnold et al., 2008; Baptist and Teal, 2008; Amin, 2009; Shiferaw and Bedi, 2009; Sonobe et al., 2009; Goedhuys and Sleuwaegen, 2010; De Vreyer, and Roubaud, 2013), but it is not clear to what extent the micro-data samples are representative of the national populations. Overall statistical capabilities have been declining rather than improving, so that data collection tends to depend on incidental donor support. Annex Table I provides an overview of labour statistics in sub-Saharan African countries..

The documented low frequency of data collection and low comparability of labour statistics hampers the development of labour market information analysis (LMIA) systems. According to Sparreboom and Albee (2011), *"the state of LMIA systems in sub-Saharan Africa is an important reason why many countries fail to formulate proactive employment and labour policies. Such policies, including ambitious but realistic targets that are consistently monitored and evaluated, require effective LMIA systems based on regular data collection and analysis. Strengthening LMIA systems and improving the availability of labour market indicators is therefore essential to ensure better labour market outcomes"* (ibid., p. 5).

2.4. Causes of and solutions to the slow growth of productive employment in Africa. A review.

2.4.1. Structural change and the creation of productive jobs

There is a strong correlation between high shares of agriculture in GDP and low levels of per capita GDP. The implication is that in poor countries agriculture may contribute substantially to employment, but this is often low quality employment due to low productivity in traditional agriculture. As agricultural productivity increases, the share of agriculture in GDP and employment will decline. The redundant workers in agriculture will have to be absorbed in other sectors through a process of structural change. Likely sectors that can potentially absorb workers leaving traditional agriculture include commercial farming and production of labour intensive higher value added crops; the rural and urban informal service sector; the formal service sector, in particular business services, tourism, transport, logistics and distribution; mining; construction; manufacturing and the public sector. These sectors differ greatly in terms of their opportunities to generate productive employment. Manufacturing and business services typically provide productive jobs, while informal services, and traditional agriculture provide jobs of less quality.

The experiences with African manufacturing have been disappointing (e.g. Szirmai and Lapperre 2001 for the case of Tanzania). Many countries in Africa have been experiencing de-industrialization, rather than industrialization, and the contribution of manufacturing to employment creation has been rather limited. Rodrik (2006) sees the process of structural change away from the non-mineral tradable sector and the weakness of export-oriented manufacturing as the deeper causes of relatively low growth and high unemployment in South Africa.

Leipziger and Yusuf (2012) tackle the issue of job creation in Africa and, like Page (2012) and the McKinsey report (2012), suggest investment in agro-industry and in light labour-intensive manufacturing and services. They believe in the possibility of a shift of light manufacturing activities from East and South East Asia to Africa, provided that investments in human capital, needed to reap the benefit of modern technologies, actually materialize.

Extractive industries (mining) present little employment opportunities and weak forward and backward linkages to the rest of the economy. Diversification of the production and export structure, and mechanisms to channel the wealth generated by resource extraction in the rest of the economy are crucial for how an economy benefits from natural resources. The 2013 *World Development Report* presents Norway and Papua New Guinea as cases of successful management of natural resources revenues for diversification.

Too little is known about the role of the construction sector in structural change and employment creation, even though it is an important sector in terms of the quantity of labour it employs. In Africa the construction sector creates both formal and informal employment.

The public sector is a source of formal employment in the service sector, but budgetary constraints and more critical views of the potential of the public sector impose limits on public sector job creation.

The informal urban and rural service sector employs a large proportion of workers in SSA. As argued above, this is often vulnerable and low quality employment (Fox and Gaal, 2008). The scarce evidence shows lower earnings than in the formal sector (some data available in labour surveys of Uganda in 2001; Ghana in 1998; Senegal in 2001). However, in rapidly growing economies, the informal sector earnings also tend to grow. Moreover, earnings in the informal sectors are still higher than those in the agricultural sector. These are some of the reasons why a solution to poverty in Africa should include the informal sector.

2.4.2. The role of innovation

The creation of increasing numbers of productive jobs is deeply entwined with a continuous process of innovation. Innovation results in the upgrading of existing production and jobs, but also shifts to new products and activities in the same sector or in different sectors (structural change). In low-income countries innovation usually does not take place at the frontiers of international knowledge. It often takes the form of adoption of internationally available technologies (e.g., Fu et al., 2011; Robson et al., 2009 for Ghana; Ola-David and Oyelaran-Oyeyinka, 2012 for Kenya and Nigeria). But such technology acquisition is never merely a process of passive imitation. It involves a highly creative process of selection, learning, adaptation, upgrading and sometimes leapfrogging. The capacity to tap into global technology and knowledge flows depends to a great degree on the development of capabilities and absorptive capacities. There is a large and important literature on capability building and absorptive capacity, which is of considerable relevance for sub-Saharan Africa (Abramovitz, 1986; Biggs et al. 1995; Cimoli et al. 2009; Cohen and Levinthal, 1990; Lall, 1987,

1990, 1992, 1994, 1996, 1998, 2000). Capabilities are categorized in many different ways. An important distinction is that between production capabilities (the capability to operate a given technology), adaptation technologies (the ability to adjust technology to new circumstances and conditions) and innovation capability (the ability to start developing new technologies or upgrade existing ones).

Innovation depends not only on human capabilities but also infrastructural investment (e.g., Calderon and Serven 2010; Ncube, 2010), for instance in ICT infrastructure. In recent years, rapid progress has been made in Africa in creating ICT infrastructures, both using fibre technologies and satellite technologies (e.g. Special Issue on “ICTs and Economic Transformation in Africa”, African Journal of Science, Technology, Innovation, and Development, 2011; Mupela, 2011; Williams et al., 2011; Birba and Diagne, 2012), but major obstacles still remain especially in thinly populated rural areas. The expansion of mobile telephony in Africa is proceeding at an unprecedented rate, offering a host of innovative new opportunities.

One exciting new field of research links the literatures of entrepreneurship and innovation in the context of developing economies. This research enquires into the conditions under which small and large entrepreneurs can become more innovative and how policies could support this (see Gebreeyesus 2011, and Szirmai, Naudé and Goedhuys, 2011 for a recent overview). The work of Hausmann and Rodrik (2003) on economic development as self-discovery also focuses on the incentives for entrepreneurs in developing economies to branch out into new activities (structural change as innovation).

In recent years there is increasing attention for the concepts of inclusive or pro-poor innovation – types of innovation that contribute in important ways to poverty reduction and the needs of the poor. One strand of research is that of *the bottom of the pyramid* (Prahalad, 2006, Ramani et al. 2012; for the African context, Ismail and Masinge, 2011), which focuses on the development of new products that serve the needs of billions of poor people ‘at the bottom of the pyramid’. A second strand of research focuses primarily on innovative entrepreneurial activities that create quality jobs for poor people (Sonne, 2011).

2.4.3. Skills mismatch as a cause of unemployment

African countries have been extremely successful in expanding their education systems since 1950. They have invested heavily in education at all levels and enrolments and graduations have increased dramatically (Szirmai, 2013, chapter 7, Barro and Lee, 2010). Nevertheless, this has not translated into acceleration of growth, structural change and catch up in Africa. The modern debate on the role education asks why this is the case.

A very brief summary of the strands in this debate is as follows:

- 1 Investment in education affects economic performance with very long delays (of up to decades) and is also dependent on complementary factors such as inflow of capital and knowledge which challenges the acquired skills. In the 1950s, Africa had a huge skill gap with the rest of the developing world. Sixty years later, it is better placed to profit from its accumulated stock of human capital.
- 2 In contrast to the optimistic analysis under point 1, recent research suggests that quantitative advance in enrolment and graduation hides large skill gaps. The focus in education policy should be on improving cognitive skills (Hanushek and Wößman, 2007, 2008).

- 3 There is a skills mismatch between what is being learned in educational institutions and what is required by the labour market (World Bank, 2013; African Outlook 2012). The skills mismatch involves insufficient attention for professional, agricultural, vocational and middle level technical training, insufficient attention to on-the-job training and overschooling resulting in brain drain. But there is a debate whether the mismatch is caused by shortcomings in the educational system or by distorted financial and institutional incentives ((Dihn et al., 2012; World Bank, 2013; Sekwati and Narayana, 2011; Okunola et al., 2010).

2.4.4. The Role of Small and Medium Sized Enterprises

Developing countries are generally characterized by dualism at different levels of the economic and social structure. Duality also manifests in industrial markets, made up of few large formal firms and a myriad of small and mostly informal firms. Because job creation is mainly constrained by a lack of supply of jobs and because the African private sector employment is dominated by small and micro firms, it is important that policy addresses the issue of firm growth. There are few studies on this issue (e.g. Goedhuys and Sleuwaegen, 2002; Bigsten and Gebreeyesus, 2007; Shiferaw and Bedi, 2009).

An analysis of the role of SMEs and entrepreneurship is relevant to this study for two main reasons. The first is that SMEs and entrepreneurial activities (a great bulk of the informal sector) dominate the African economy. The second is that if these micro firms are driven by opportunities and prove to be dynamic and innovative, the constraints to their growth should be eliminated. In this way, more jobs could be created and with the emergence of larger firms, informality and vulnerability could be greatly reduced (African Economic Outlook, 2012). Studies on firm growth include Goedhuys and Sleuwaegen, 2002; Bigsten and Gebreeyesus, 2007; Shiferaw and Bedi, 2009). Grimm et al. (2012) introduce the concept of Constrained Gazelles. These are firms that differ from most small firms in having an untapped growth potential. Sonne (2011) makes a comparable argument that policy attention should focus on a dynamic subset entrepreneurs and firms in the informal sector which have the potential of rapidly expanding employment and engaging in pro-poor innovation.

2.4.5. Policies for productive employment:

Annex Table 2 provides a summary view of the implementation of four categories of policies in sub-Saharan Africa: trade policies, sectoral policies, innovation policies, employment policies.

Common trends in industrial policy in Africa include: attraction of FDI (especially for export-oriented sectors); promoting of export-oriented industries; selective tariff protection and export taxes to incentivize local processing of raw materials; privatization of manufacturing public firms; sectoral policies focusing on existing resources and light manufacturing (Marti and Ssenkubuge, 2009).

According to UNECA (2011b) two promising general policy directions for Africa are promoting industrial clusters and upgrading along the agricultural value chain.

SEZs are often mentioned in policy recommendations for Africa (Kingombe and te Velde, 2012, Monga 2011). The reason for this is that SEZs attract investments that would have not come to a particular country otherwise. Therefore, these additional investments create additional jobs. However, empirical evidence shows that SEZs do not play a large role in overall employment in most African countries (Kingombe and te Velde, 2012, Monga 2011).

Other important areas of policy with important employment implications are: improving agriculture productivity in small holder agriculture, commercialisation of agriculture and support dynamic

entrepreneurship in the informal sector. For more detail about the literature on employment policies see annex I.

There is a lively debate about the nature of industrial policy and how industrial and innovation policies can contribute to structural change, technological upgrading and the generation of productive employment (for an overview see Naude and Szirmai 2012). Two interesting positions in this debate are provided by Hausmann and Rodrik (2003) and Lin and Monga (2011). Hausmann and Rodrik interpret structural change as a process of self-discovery, in which firms discover where a country has a competitive edge. Policy should aim at supporting such firms, because they bear more risks and costs than followers who can imitate the leaders. Lin and Monga (2011) argue that a country can identify its latent comparative advantage through comparison of its sector structure with similar countries at higher stages of development. According to their framework, in the first step of an industrialization strategy, country should identify the sectors in which they have latent comparative advantage. In order to do so, countries can look at the list of tradable goods and sectors, produced in the last twenty years in growing countries with similar resource endowments and with a per capita income about 100% higher than their own. Among these industries, countries should favour industries where some domestic firms have already entered the market. If domestic firms are not present in these industries, the government can attract FDI from world industry leaders (by leveraging on lower labour costs or by creating EPZs and industrial parks, or by offering temporary financial incentives).

A more statist position is taken by authors such as Ha-Joon Chang (e.g. Lin and Chang 2009; Chang 2012) and Alice Amsden (2011), who argue that governments should take the lead in structural change by defying static comparative advantage and ‘getting prices wrong’. But other authors argue that selective state interventions require very high state capabilities, which are lacking in many sub-Saharan African countries. Thus Tilman Altenburg argues that the neo-patrimonial state can be an obstacle for effective implementation of industrial policies in Africa (Altenburg, 2013).

3. How to promote productive and sustainable employment in Africa? ongoing discussions and contrasting points of view on development policy and strategy

3.1. Finding African role models

It is important to find African countries that can serve as examples or role models for other countries on the continent. Development strategies cannot be blindly copied from one setting to another (Hobday, 2013) but countries can learn from one another. When one African country is successful in realising an employment creating path of dynamic growth, this can be more inspiring for other countries on the continent than distant examples from Asia or Latin America. The same is true from a policy perspective: examples of policies that have been effective – e.g. export zones - can stimulate policy formulation in other countries.

3.2. Agricultural led industrial development

There is an interesting debate on agricultural development led industrial development. An example of a country presently following such a development strategy is Ethiopia. The argument for ADLI goes back to the balanced growth debates of the sixties (Szirmai, 2005). It is argued that prior productivity improvements in the agricultural sector are an important precondition for industrialization in countries where a large proportion of the working population is still employed in agriculture. This means that there should be investment in productivity improvement and technological change in agriculture at the same time that the foundations are being laid for expansion of manufacturing.

A similar argument can be made for the informal sector. The two sectors that generate most employment are the agricultural and the informal sectors (one could well argue that small holder agriculture should be seen as part of the informal sector). According to the 2013 World Bank report, improvement of agriculture and the informal sector will promote productivity growth in the respective sector but also the development of other sectors.

The most important of debate concerns about the implementation of policies that tries to promote the productivity and learning in the small farms and firms. The dominant policy is a top-down approach, whereby the private sector (the small farmers and firms) passively receives technology, finance and other support from the government and the donor community. Hence, examination of success/failure stories could enrich our understanding in this regard.

3.3. Resource based industrialisation

Often, the East Asian economies are taken as the exemplars for economic strategy and structural change. Perhaps Latin America can also provide lessons for economic development in resource rich economies. Carlotta Perez has coined the phrase “resource based industrialisation” (Perez, 2008, see also Marin et al. 2009), arguing that natural resource-based activities can serve as a platform for development strategies. These authors have argued that resource rich countries can develop resource based manufacturing activities, which are technological dynamic and contribute to employment. Examples of resource based manufacturing include ethanol production in Brazil, wine production in Chile and Argentina (Farinelli, 2013) and salmon production in Chile. Many of the examples come from food production which was once considered to be a traditional technologically stagnant sector, but is now seen as much more technological dynamic. Botswana provides as a partially successful example of resource based development (Acemoglu et al. 2003), Nigeria and Democratic Republic of Congo are clear examples of failures. Angola and Mozambique provides examples of interesting and promising developments).

3.4. Non-traditional exports

Structural change and economic diversification can take different forms. One particular interesting avenue of structural change is the emergence of non-traditional exports. In the past fifteen years several African countries have been successful in developing new modern export sectors for products such as flowers, vegetables or brand coffees (see Iizuka and Gebreyesus, 2012). Countries which have achieved success in this respect include Ethiopia, Kenya and Tanzania.

3.5. Creating employment in labour intensive modern agriculture.

In the fifties and sixties Africa was self-sufficient in food. Decades of anti-agricultural bias in policy have made many countries on the continent import dependent in food. There is an urgent need for green revolutions in semi-arid agriculture, which increase food productivity, food security and at the same time are labour intensive in nature. One debate is whether or not such a green revolution is feasible in the African context (Page, 2012, 2013). Another debate which cannot be avoided in this context is that concerning the relative efficiency and innovative capabilities of large farms or plantation agriculture using wage labour versus small-holder agriculture based primarily on family labour.

3.6. Engines of growth and employment creation: Is manufacturing still important?

Since the late 1980s, Africa has been characterised by premature de-industrialization (Tregenna, 2013). De-industrialization involves a decline of the share of manufacturing in total employment. As manufacturing jobs are better rewarded, more stable and provide more learning opportunities than most other sectors, de-industrialisation is problematic from the productive employment perspective.

The debate focuses on whether re-industrialization is feasible, or whether African economies should follow the alternative route of service-led growth. As is clear from the preceding sections, we argue that growth and employment creation has to be broad-based. We discussed a variety of strategies including modernization of agriculture, innovation in the informal service sector, non-traditional sectors, resource based development. In a recent report to the international finance corporation, Lavopa and Szirmai (2012) argue that manufacturing still has a special role to play in employment creation and poverty reduction, also in an African context. It may be that direct employment creation in modern manufacturing is not sufficient to absorb the increasing supply of labour, but the indirect effects of manufacturing on other sectors remain important for growth, employment creation and poverty reduction.

3.7. Role of foreign direct investment in employment creation

Attitudes to foreign investment have undergone substantial change in Africa. Up till the late eighties many countries such as Tanzania, Mozambique or Ethiopia were hostile to foreign investment. In recent decades countries such as Tanzania and Mozambique have opened up to foreign investment. For instance, former socialist Tanzania is one of the largest recipients of FDI in Eastern Africa, which not only flows into mining, but also into manufacturing (Portelli, 2006). The same is true for Mozambique. In general, the debate has shifted from whether or not FDI is desirable to how it can be attracted and under what conditions its contributions to the domestic economy and productive employment are more positive. The role of complementary capabilities in the domestic economy is of special interest here. Special attention is now being paid to the increasing role of Chinese investment in African economic development.

3.8. Promoting entrepreneurship in the informal sector

In economies where a large part of the labour force is locked into the vulnerable informal sector, the question arises whether entrepreneurship (and entrepreneurship policies) can provide a route towards making employment in this sector less vulnerable (more productive). Recent research indicates that the scope for dynamic entrepreneurship in the informal sector is limited. For instance, in a survey of 800 entrepreneurs in Uganda, the great majority were survival entrepreneurs (other terms: necessity entrepreneurs; subsistence entrepreneurs). Only some 20 to 25 entrepreneurs were dynamic and entrepreneurial in a Schumpeterian sense (Rooks et al. 2012).

From the perspective of poverty reduction and social inclusion, a recent study by Lina Sonne argues that policy should focus on the limited number of somewhat more affluent growth oriented micro-entrepreneurs, rather than on the mass of the poor survival entrepreneurs. It is these growth oriented entrepreneurs (also referred to above as Gazelle firms) that can rapidly create new employment. For this new financial institutions have to be developed – different from conventional micro-finance institutions - that can reach these growth oriented micro-entrepreneurs. The study of Sonne focuses on India, but has obvious relevance for Africa (see also Grimm et al. 2011).

3.9. Exploiting unlimited supplies of cheap labour

As indicated in section 2, African economies are characterised by huge reserves of underemployed labour, which is excluded from formal labour markets. In the past, African countries have missed out on labour intensive manufacturing, in part due to a policy of relatively high wages and too capital intensive production. In 1950 Western Africa and South East Asia started out at similar levels of per capita income. Since then industrialization in South East Asia has taken off, initially on the basis of exploitation of cheap labour in labour intensive manufacturing (later followed by upgrading). African countries have missed out on this opportunity.

The next decades will offer a new window of opportunity for African manufacturing. Successful population policies in China are resulting in an aging population, shortages of labour and increasing incomes. The future shortage of labour in China will create new opportunities for low income countries in labour intensive manufactured exports (see also Lin, 2011). Manufacturing is already shifting from China to other low-wage countries such as Vietnam, Cambodia, Myanmar and especially Bangladesh.

In general, African countries produce far too capital intensively, given their factor proportions, in part due to highly distorted labour and capital markets (e.g. Kaplan, 2012; van Biesebroeck, 2004). One of the most extreme examples is South Africa where workers in the formal sector striking for large wage increases, while perhaps up to 40 per cent of the workforce is excluded from the formal labour market. Africa needs to learn from the example of East Asia that the route to economic success lies in the exploitation of a highly disciplined, relatively well educated pool of cheap labour (e.g. Kaplinsky, 1995; Alleyne and Subramanian, 2001).

This has clear implications for labour market policies. African labour market policies have been shaped by coalitions between an elite labour movement and dominant political parties favouring a small working population in the formal sector and excluding the majority of the workers in the informal sector. Labour market policies should become more inclusive, which also means the acceptance of low wages, till an expanding economy starts to realise productive increases which at a later stage allow for wage increases. (Even low wages in manufacturing will be better than remuneration in the informal sector, due to higher productivity and learning opportunities).

3.10. Population policy

All researchers agree that youth unemployment is a huge problem on the African continent. From this perspective it is hard to understand why population policies have come to have such a low priority in the policy debates. Compared to other developing regions in the world Africa is unique in maintaining very high rates of fertility and population growth (Szirmai 2013). In the medium to long term, a decline in fertility rates would also reduce the pressures on the labour market.

3.11. Is skill mismatch in Africa myth or reality?

With regard to the presumed skill mismatch, there are at least two parallel debates.

First, there is a question about whether or not the skill mismatch exists. The 2013 World Development Report on Jobs argues that skill mismatches are important and that they are increasing rather than shrinking. On the other hand, the McKinsey 2012 report *Africa at Work* argues that entrepreneurs do not see the difficulty of finding workers with appropriate skills as a major obstacle to business growth in Africa.

The second debate takes the existence of skill mismatches in Africa for granted and focuses on what the best policy responses should be. One response is to give higher priority to both vocational training and on the job training schemes. A more general approach is to see the education system not merely as a supplier of appropriately schooled labour, but as an integral part of the national innovation system. This requires strengthening the ties and interactions between educational institutions, public research organizations and productive firms at all levels. These closer ties themselves would contribute to reductions of skill mismatches.

3.12. The nature and focus of Industrial Policy

Africa has moved from strong state intervention to a more or less market oriented approach, but the incentives for remain entrepreneurial activity limited. Africa ranks low on the ease of doing business (Page, 2013). At present industrial policy is making a global come back, as a reaction to the

disappointments with a purely market oriented approach. Some authors (e.g. Cimoli et al. 2009) even argue for a return to the industrial policies of the post-war period, including protectionist measures. Some countries such as Ethiopia are experimenting once more with a state-led developmental strategy. Other authors argue for a more important role for entrepreneurship and the private sector. The policy response here is to reduce regulation and red tape, increase transparency and make starting up a business easier. Naudé and Szirmai (2012) argue against a return to the selective interventions of the past. They agree that there is a renewed need for industrial policy. But policies must be tailored to state capacity. Selective intervention requires a degree of state capacity and autonomy which presently does not exist in most African countries. One should not neglect the lessons of serious failures of past industrial policies in Africa prior to the eighties. Though the debates continue the dominant focus at present is still on supporting and challenging firms and building effective relations with the private sector (UNECA, 2011b).

4. Priority areas for knowledge collection, future research and policy debates

On the basis of the discussions in sections 2 and 3, we formulate a preliminary list of research and policy priorities

4.1. Addressing data gaps and improving statistical capabilities

One of the serious problems identified in this note is the dearth of statistical data and information about employment quantity and quality. To address this issue, we should invest in systematic improvement of statistical capabilities of African central statistical offices and other data collection agencies. This should provide an ideal opportunity for long term cooperation between Dutch researchers and statistical organizations and their African colleagues. Such efforts should not be directed at incidental research projects, but at implementation of repeated waves of comprehensive labour force surveys.

4.2. Empirical analysis of employment trends

Such analysis would focus on 1. the sectoral composition of the labour force; 2. trends in employment, hours worked and remuneration; 3. Breakdown of the labour force by age, gender, hours worked, remuneration and the characteristics of employment (formal/ informal; rural/urban; skill levels); 4. Trends in unemployment and underemployment

4.3. Research on the informal sector

More research is needed about the informal sector and its potential contribution to economic development, productive employment creation and poverty reduction. The informal sector is a very heterogeneous sector in terms of activities and the nature of jobs. It also has very complex interrelationships with the formal sector. Research could help identify informal sector actors with dynamic potential in terms of production and employment.

4.4. Skills mismatch and what to do about it

Research under this heading tries to identify mismatches between what employers require and what job seekers can offer. Of particular interest are settings where high skilled workers are unable to find jobs, while simultaneously firms are unable fill vacancies and resort to recruiting skilled expatriate labour. An employer-employees survey based empirical analysis could improve our understanding on the extent of skill gap, mismatch and causes in the African market of skilled labour. Policy interventions can focus improving formal and on the education practices, on recruitment practices or on institutional reforms. An important area of research is that of brain drain and how it can be

converted into brain circulation. A related area of research is that of migration of labour within the domestic economy.

4.5. Innovation and its contribution to productive employment.

One of the interesting areas of research is how African enterprises can be made more innovative and thus through upgrading of their production process provide more high quality employment. What are the determinants of innovative behaviour at micro level and what are the main obstacles to innovation and technological upgrading? What are the most promising areas of technological advance in different sectors of the economy from the perspective of productive employment creation (agricultural innovation, food processing, ICT technologies, processing of mining products, tourism and logistics, software). What are the relations between policy, innovation and upgrading of jobs? How do capabilities of workers affect the ability of firms to absorb and develop technologies, and how can such capabilities be improved through on the job learning, formal training or other methods. How do innovation and education policies impact on capabilities (see also the previous heading on skills)?

4.6. Contributions of growth and structural change to employment creation.

Research under this heading focuses on the short- and long-run contributions of different sectors to employment creation. Such research focuses on the employment elasticity of growth of sectoral output (which depends in turn of productivity growth and the capital intensity of production) and the contribution of intersectoral shifts in output to total employment. Aim of this research is to identify the sectors that contribute most to employment creation. Indirect effects have to be taken into account, which makes the use of input output tables – if available – a useful tool for such research.

4.7. The links between employment creation, poverty reduction and social inclusion.

This research is related to that of the previous paragraph, but focuses more on the quality of employment. What kind of jobs are being created and how do they contribute to poverty reduction and social inclusion? The intervening factors here are productivity and labour remuneration. What are high and low productivity sectors and do high productivity sectors generate higher incomes for their workers? Does structural change involve the reallocation of workers from lower to higher paying sectors? How much and what kind of employment is being created in different sectors.

4.8. Policy analysis and policy evaluation

Systematic analysis of success and failures in the use of specific policy instruments, with special attention for implications for productive employment (Policies could include SEZs, cluster policies, financial instruments to support entrepreneurship, micro credit, on the job training schemes, tax incentives, instruments of innovation policy). Such studies can be comparative in nature focusing on large numbers of policies in different countries. They could also include in depth analysis and evaluation of the costs and benefits of specific programmes. This would allow for both quantitative and qualitative approaches. Policies have a variety of goals and aims. The common denominator in our research priorities is to examine the impact of policies on productive employment.

5. Annex

Annex Table 1. Sources of data for productive employment in SSA

SSA Country	Type of data available	Coverage	Periodicity of data collection	Years of data availability
Angola	-	-	-	-
Benin	<i>Integrated Modular Survey on living conditions of households</i>	<i>Whole country</i>	<i>Every 2 years</i>	<i>1984/5, 2006/7</i>
Botswana	<i>Labour Force Survey</i>	<i>Whole country</i>	<i>Every 10 years</i>	<i>1984/5, 2005/6</i>
	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>Every 7 years</i>	<i>1985, 1993, 2003, 2010</i>
	<i>Informal Sector Survey</i>	<i>Whole country</i>	<i>No indication</i>	<i>2007</i>
Burkina Faso	<i>Annual Survey on Household Living Conditions (QUIBB)</i>	<i>Whole country</i>	<i>Yearly</i>	<i>1995, 2005, 2007</i>
Burundi	<i>Survey 1-2-3</i>	<i>Bujumbura</i>	<i>Irregularly</i>	<i>2005</i>
	<i>Household Living standard Survey</i>	<i>No indication</i>	<i>No indication</i>	<i>1998</i>
Cameroon	<i>Enquête Emploi Secteur Informel</i>	<i>No indication</i>	<i>No indication</i>	<i>1995, 2005</i>
	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>No indication</i>	<i>1995, 2005</i>
Central African R.	<i>OECD/Eurostat</i>	<i>No indication</i>	<i>No indication</i>	<i>1995</i>
	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>No indication</i>	<i>2005</i>
Chad	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>No indication</i>	<i>2005</i>
Congo, D. R.	<i>Survey 1-2-3</i>	<i>Whole country</i>	<i>Irregularly</i>	<i>2004/5</i>
	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>No indication</i>	<i>2005</i>
Congo	<i>Enquête sur l'Emploi et le Secteur Informel (ECOM)</i>	<i>Brazzaville and Pointe Noire</i>	<i>Irregularly</i>	<i>2009</i>
	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>No indication</i>	<i>2005</i>
Côte d'Ivoire	<i>Enquête sur la Situation de l'Emploi à Abidjan</i>	<i>Abidjan</i>	<i>Irregularly</i>	<i>2008</i>
	<i>Household Living Standard Survey</i>	<i>No indication</i>	<i>No indication</i>	<i>1985, 1986, 1987, 1988, 1992, 1995, 1998</i>
Eritrea	-	-	-	-

Ethiopia	<i>Labour Force Survey</i>	<i>Whole country excluding some areas</i>	<i>Irregularly</i>	<i>1999, 2004/5</i>
	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>Every 5 years</i>	<i>1995, 2000, 2005, 2011/2</i>
	<i>Ethiopian Rural Household Surveys (ERHS)</i>	<i>Some rural areas</i>	<i>Irregularly</i>	<i>1989, 1994, 1995, 1997, 1999, 2004, 2009</i>
Gabon	<i>Enquête Nationale sur Emploi et Chômage</i>	<i>No indication</i>	<i>No indication</i>	<i>1993, 2011</i>
	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>No indication</i>	<i>2005</i>
Gambia	<i>Integrated Household Survey</i>	<i>Whole country</i>	<i>Irregularly</i>	<i>2003/4</i>
Ghana	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>Irregularly</i>	<i>1987, 1988, 1991, 1998/9, 2005/6</i>
Guinea	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>No indication</i>	<i>1995</i>
Guinea- Bissau	-	-	-	-
Kenya	<i>Integrated Household Budget Survey</i>	<i>Whole country</i>	<i>Every 10 years</i>	<i>1998/9, 2005/6</i>
Lesotho	-	-	-	-
Madagascar	<i>Enquête Périodique Auprès des Ménages</i>	<i>Whole country</i>	<i>Irregularly</i>	<i>1993,1995,1997 ,1999,2001, 2005, 2010</i>
Malawi	<i>Integrated Household Survey</i>	<i>Whole country</i>	<i>Irregularly</i>	<i>1991, 1997/8, 2002, 2004/5, 2010/11</i>
Mali	<i>Enquête Permanente Auprès des Ménages (EPAM)</i>	<i>Whole country</i>	<i>Every 2 years</i>	<i>1995, 2004, 2007, 2010</i>
Mauritius	<i>Continuous Multi Purpose Household Survey (CMPHS)</i>	<i>Whole country</i>	<i>Quarterly</i>	<i>1999-2012</i>
	<i>Small and Large Establishment</i>	<i>No indication</i>	<i>No indication</i>	<i>2002 and 2007</i>
Mozambique	<i>Integrated Labour Force Survey</i>	<i>Whole country, excluding 4 districts</i>	<i>Irregularly</i>	<i>2004/5</i>
	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>No indication</i>	<i>1995,2005, 2010</i>

Namibia	<i>Labour Force Survey</i>	<i>Whole country</i>	<i>Irregularly</i>	<i>1997, 2000, 2008</i>
	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>No indication</i>	<i>1995</i>
Niger	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>No indication</i>	<i>1995</i>
Nigeria	<i>Labour Force Survey</i>	<i>Whole country</i>	<i>Quarterly</i>	<i>2009</i>
	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>Every 5 years</i>	<i>1986, 1992, 1997, 2003</i>
Rwanda	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>No indication</i>	<i>1995, 2005</i>
Senegal	<i>Enquête de Suivi de la Pauvreté (ESPS)</i>	<i>Whole country</i>	<i>Irregularly</i>	<i>2005/6 and 2011</i>
	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>No indication</i>	<i>1995, 2005</i>
Sierra Leone	<i>Integrated Household Survey</i>	<i>Whole country</i>	<i>Irregularly</i>	<i>2003-2004</i>
Somalia	-	-	-	-
South Africa	<i>Labour Force Survey</i>	<i>Whole country</i>	<i>Quarterly</i>	<i>2000-2012</i>
South Sudan	-	-	-	-
Sudan	<i>Household Living standard Survey</i>	<i>No indication</i>	<i>No indication</i>	<i>1988</i>
Swaziland	<i>Household Living standard Survey</i>	<i>No indication</i>	<i>No indication</i>	<i>1985, 1995</i>
Tanzania	<i>Integrated Labour Force Survey</i>	<i>Whole country</i>	<i>Every 5 years</i>	<i>1995, 2000/1, 2006, 2010/11</i>
	<i>Household Living standard Survey</i>	<i>No indication</i>	<i>No indication</i>	<i>1991, 2000, 2001</i>
	<i>Kagera Health and Development Survey</i>	<i>Kagera Region</i>	<i>No indication</i>	<i>1991, 1992, 1993, 1994, 2004, 2010</i>
	<i>National Panel Survey</i>	<i>Whole country</i>	<i>No indication</i>	<i>2008, 2010</i>
Togo	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>No indication</i>	<i>2005</i>
Uganda	<i>Urban Labour Force Survey</i>	<i>Main cities/metropolitan areas/regions</i>	<i>Yearly</i>	<i>2002, 2009</i>
	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>No indication</i>	<i>2005/6, 2010</i>
Zambia	<i>Labour Force Survey</i>	<i>Whole country</i>	<i>Irregularly</i>	<i>1986, 2005</i>

	<i>Living Standards Survey</i>	<i>Whole country</i>	<i>No indication</i>	<i>2005</i>
Zimbabwe	<i>Labour Force Survey</i>	<i>Whole country</i>	<i>Irregularly</i>	<i>1993, 2004</i>
	<i>Household Living standard Survey</i>	<i>No indication</i>	<i>No indication</i>	<i>1990,1993, 1995</i>

Source: Authors' elaboration, based on national statistical offices, ILO³, UNECA/AfDB⁴ and World Bank (2013), table 9.

³ http://laborsta.ilo.org/applv8/data/SSM3_NEW/E/SSM3.html#A

⁴ <http://ecastats.uneca.org/acsweb/rrsf/en-us/baselineinformation/datadevelopment.aspx>

Annex Table 2. Industrial policy in SSA

Policy area	IP tool	Botswana	Cameroon	Cote d'Ivoire	Ethiopia	Ghana	Kenya	Mauritius	Nigeria	Rwanda	Senegal	South Africa	Uganda	Zimbabwe
Trade policy	<i>Export promotion</i>	X	x	x	x	x	x	x		x	x		x	x
	<i>SEZs</i>		x	x	x	x	x	x	x	x	x	x	x	x
	<i>FDI attraction for export</i>	X	x	x		x	x	x	x	x			x	x
	<i>Standardization and quality controls</i>	X	x	x	x			x			x		x	
	<i>Selective trade protection</i>	X	x				x	x	x		x		x	
Sectoral policy	<i>Preferential credit</i>	X		x	x			x			x	x		
	<i>Competition regulation</i>											x		
	<i>Public procurement</i>	X			x	x	x					x		x
Innovation policy	<i>FDI attraction for technology transfer</i>	X	x		x	x		x						
	<i>Incentives for equipment and machinery</i>	X						x		x		x		
	<i>Industrial R&D</i>	X			x	x	x	x	x	x			x	

	<i>Clusters</i>					x	x	x	x				x	
	<i>Training</i>	X	x	x	x	x	x	x	x	x		x	x	x
	<i>SMEs</i>	X		x	x	x	x	x		x		x	x	x
Employment policy	<i>Measures for rural poor and informal sector</i>	X	x	x		x		x	x	x	x	x	x	
	<i>Public works</i>	X		x	x		x			x		x	x	
	<i>Employment services</i>				x		x					x		x

Source: Authors' elaboration based on: Altenburg (2010), Assefa (2008), Bategeka (2012), ILO (2004), Marti and Ssekubuge (2009), Rizzo (2011), Soludo et al. (2004), UNDP (2005), UNECA (2011b), Zeng (2008), Walther (2006) and national policy documents.

Notes: Measures for rural poor and informal sector include measures for agricultural development, programs to provide rural poor with the conditions to move to other productive sectors (e.g. education, technical skills, and access to finance) and measures to incentivize formality and improve productivity of the informal sector. Public works refer to subsidized temporary employment or labour intensive mega-projects financed to create employment (e.g. infrastructure projects). Employment services refer to active labour market measures and efforts to develop effective labour market mediation, information and careers advice institutions and services, both in the public and private sector.

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