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# **Building an Industrial Workforce in Ethiopia**

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# BUILDING AN INDUSTRIAL WORKFORCE IN ETHIOPIA: HISTORICAL LESSONS AND CURRENT DYNAMICS

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## Abstract

This chapter provides an overview of the factors and dynamics involved in the creation and formation of an industrial workforce in an agrarian-based economy. The main argument is that the process of building an industrial working class is uneven, protracted, and requires interventions and important economic and social shifts over long periods of time. Historical lessons of early and late industrialisers are highly relevant for contemporary Ethiopia as it seems that history does repeat itself in some ways. The chapter focuses on a number of structural obstacles to the process of building an industrial workforce, particularly: addressing socio-cultural barriers and the problem of 'work cultures' and work ethic; sourcing workers, managing and especially housing migrant labour; scarcity of employable skills (including soft skills); mismatch in expectations between employers and workers, largely related to wage-setting mechanisms, non-wage conditions, and labour productivity

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*[...] there is no such thing as economic growth which is not, at the same time, growth or change of a culture; and the growth of social consciousness, like the growth of a poet's mind, can never, in the last analysis, be planned. (E.P. Thompson 1967: 97)*

## **Introduction\***

Building on years of rapid economic growth to generate a sustained process of structural change and high-quality employment growth is a major challenge. Ethiopia, like many other African countries, is experiencing a youth bulge in a context in which a demographic transition in Africa is not evident yet (Meagher 2016). The lack of higher-productivity jobs until only recently means that a very large proportion of the population is still employed in very low-productivity agricultural and ‘informal’ service activities, and unemployment rates in large urban centres remain high despite steady decline since the 1990s (Meagher et al. 2016; World Bank 2016; Martins 2016). As Oqubay (Chapter xx) warns, the Ethiopian economy has thus far made limited progress in providing decent permanent jobs for the rapidly expanding young labour force and better educated population, thus threatening economic and political stability.

To be sure, there are signs of positive trends. Unemployment and underemployment rates have declined in both urban and rural areas since the 1990s (World Bank 2016: 33); labour participation rates have increased with dependency ratios declining (EEA 2016; CSA 2014); and some structural change has taken place in the past ten years. However, much of this is not of the ‘classic’ type associated with rapid industrialisation (Martins 2016). The acceleration in manufacturing development in recent years is yet to be reflected in up-to-date statistics on employment shares, as the next section will show.

Therefore labour surplus transfer from agriculture to more productive activities will represent one of the biggest challenges that the Ethiopian economy, society, and state will face in the medium to long run. As Amsden (2001) puts it, poverty reduction will not be possible with

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only supply-side measures without attention to ‘jobs’, i.e., by forgetting about the demand side of the employment equation. However, we also know from history that building an industrial labour force is a lengthy and uneven process that has taken generations in many of today’s industrialised countries. Moreover, the rise of automation in manufacturing also means that less employment per capital invested can be created so the contribution of other sectors remains critical.

This chapter will provide an overview of the factors and dynamics involved in the creation and formation of an industrial workforce in an agrarian-based economy. This is a long-standing issue that has been a theme in much of classic political economy as well as in the ‘old’ development economics tradition. The topic is relevant for contemporary Ethiopia if the current take-off of industrial development is followed by sustained growth and consolidation of manufacturing activities as sources of employment and linkages with the rest of the economy. The main argument is that the process of building an industrial working class is uneven, protracted, and requires interventions and a range of important economic and social shifts over a sustained period. Having a large pool of young labour and potentially competitive labour costs is no guarantee that industrial investors will not find significant obstacles in the labour market. Historical lessons of early and late industrialisers are highly relevant for contemporary Ethiopia as it seems that history does repeat itself in some ways.

The chapter will be organised as follows. The first section will provide basic analytical and conceptual pointers on the dynamics of labour surplus transfer, and the realities of such employment shifts in the Ethiopian context. This will be followed by a brief analysis of key social and cultural barriers to the formation of an industrial working class and how the current obstacles referred to by emerging industrial investors in Ethiopia have a long history in previous experiences of rapid industrialisation. This point connects with the problematic of finding and retaining workers, managing migrant labour, and especially the role of housing, an issue often repeated in current debates on industrial parks in Ethiopia. The following section documents the current skill gaps and historical lessons on the process of skill development and industrial working-class formation in other successful cases of industrialisation in relevant sectors. Finally, a discussion of clashes of expectations and how they can affect the early stages of industrial development will be necessary to understand worker retention problems, and instances of conflict that many firms face in these initial phases. These sections also show that varieties of industrial capitalism (and of ‘capital’) observed in contemporary developing countries in the past 30 years are relevant to

understand the challenges and options facing Ethiopia today. The concluding section will summarise some of the key challenges Ethiopia faces in making sure that current industrialisation efforts respond to the employment challenge of creating mass jobs in more productive activities, at the same time ensuring that labour-related constraints do not slow down the acceleration of manufacturing development.

### **Building an industrial workforce in contemporary Ethiopia**

The aim of this core section is to consider key medium and long-run challenges for Ethiopia's process of building an industrial workforce. This analysis is based on an understanding of relevant historical experiences and the particular situation of Ethiopia's economy and labour markets as of 2018. The chapter draws on a selective review of key studies on other experiences of industrialisation, relevant secondary sources on labour structures and shifts in Ethiopia, as well as some material from qualitative research and fieldwork conducted in Hawassa Industrial Park and other industrial areas in Addis Ababa and surroundings in 2017 and 2018.

#### ***Structural change and labour surplus transfer***

The dominant narrative suggests that Ethiopia has a very large pool of labour still employed in low-productivity activities or simply unemployed, which can be the basis for a dynamic labour surplus transfer. Does Ethiopia conform to the classic Lewis context of labour surplus transfer with "unlimited supplies of labour" (Lewis 1957)? In some ways it does, insofar as the contemporary emergence of a modern capitalist sector (often equated with industrial activities but not necessarily so) can create conditions for both static and dynamic labour surplus transfers. However, even in a scenario with unlimited supplies of labour, labour surplus transfer from low-productivity subsistence activities is neither automatic nor inevitable (Thirlwall 2011). Furthermore, labour surplus transfer can also happen towards other equally low-productivity activities in non-farm sectors, as is the case in Ethiopia and many African countries.

What is the evidence of labour transfer dynamics in contemporary Ethiopia? For static and dynamic labour surplus transfer to happen, and to eventually accelerate, the supply side of the story is not enough. On the supply side, some research suggests there is a demographic dividend in Ethiopia. Martins (2016) argues that since 2005 there are signs of demographic transition (falling fertility rates) and a potential demographic dividend demonstrated by a

sharp increase in the proportion of the working-age population and the employment rate.<sup>1</sup> On the demand side, however, there is still scant evidence that sectoral employment shares are changing rapidly, at least until 2014 for which we have published statistics. According to the EEA 2016 report on the Ethiopian economy and with data from the latest labour force survey (2013/14), the Ethiopian labour force is still predominantly rural and agrarian-based, and it keeps growing. Despite ongoing urbanisation, the rural population grew by 23 million between 2001 and 2014, of whom 13.1 million are of working age. Most rural employment is officially recorded as unpaid family workers (55 per cent). Given increasing land fragmentation and less viable land-based livelihoods, alternative employment options will be imperative in order to absorb all the additional labour force in the coming 50 years. Additional employment for the growing mass of rural labour may be created via structural change and industrialisation as well as through the transformation of the agricultural sector, in the form of the rise of technologically dynamic export agriculture as argued by Melese and Cramer (see Chapter xx). Martins (2016) shows that the structure of *production* has changed considerably, reflected in faster decline of agriculture in total GDP, but the composition of *employment* has been slow since the 1990s, and basically reflects the expansion of services, in activities like trade, transport, and other services, mostly as low-productivity ‘informal’ jobs.<sup>2</sup> In sum, the picture that emerges from available official data is one of (a) continuous growth in the rural labour force with a large proportion of labour market entrants who are under 25; (b) significant unemployment in large urban centres, disproportionately affecting more educated youth, especially those with secondary and post-secondary education; and (c) a high degree of informality and uncertainty in employment, with a large pool of labour stuck in low-productivity activities in micro-scale services and agriculture. This evidence suggests that there is not only substantial potential rural–urban migration but also that mass job creation is also needed in rural areas.

Three important caveats need to be understood when considering labour surplus dynamics and the role of industrialisation in Ethiopia. First, the ‘modern’ sector does not need to be in

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<sup>1</sup> This is in contrast with evidence of a stalled demographic transition in many other parts of Africa, where dependency ratios remain stubbornly high, also because a sharp decline in the proportion of youth leaving the parental household by the age of 25, as documented by Meagher (2016: 489).

<sup>2</sup> This evidence is based on the CSA labour force surveys of 1999, 2005, and 2013, which do not capture the impressive growth in manufacturing employment since 2014. Manufacturing employment also grew rapidly between 2002 and 2014 from less than 40,000 workers to over 200,000 (Ansu et al. 2016). Still, even with this recent impressive growth, employment structures have not substantially changed. Similar patterns of employment shares have been observed in much of Africa in the past 25 years (Diao et al. 2017). Jayne et al. (2018) show that much of the employment shifts observed in dynamic African countries have been between agriculture and employment expansion in informal rural off-farm activities.

manufacturing strictly speaking, as other sub-sectors can also generate high-productivity jobs and job linkages with industry-related activities are equally important. Second, the process is likely to be a long and probably uneven one, as in previous historical experiences. Third, there may be current obstacles to a more rapid transition that will need to be managed. Let us discuss these issues in turn.

First, the Lewis model of labour surplus transfer is based on a dual economy with two fundamentally different sectors, the modern-capitalist and the traditional-non capitalist, separated by a gulf in productivity levels. However, in reality economic structures even in poor countries are far more differentiated. The agricultural sector contains a range of types of farms along a productivity continuum, rather than simply ‘subsistence’ farming, but households may still make the maintenance of own farm a priority (Thirlwall 2011). The agricultural sector also includes sub-sectors that look more like industrial fields and absorb part of the labour surplus. Floriculture is an example of this in Ethiopia. The development of this sector has not only created thousands of direct jobs (over 40,000, mostly for unskilled women) but also generated even more indirect jobs, as in the production of cardboard packaging, logistical services, cold storage, and additional jobs via *induced* demand for services arising in the areas receiving flower investments: bars, hotels, construction, motorised rickshaw transport, etc. (Oqubay 2015: 49).<sup>3</sup> Thus labour surplus transfer can happen in stages and between sectors that blur the boundaries between agriculture and industry.<sup>4</sup>

Second, the process of building an industrial and non-agricultural labour force is uneven, protracted, and often slowed down by multiple obstacles. Historically the formation of an industrial labour force in Europe took a long time, gradually building from the “industrious revolution” preceding the industrial revolution as far back as the early eighteenth century (De Vries 1994). It took over 500 years for France to see a reduction in the share of agriculture in its labour force from over 70 per cent to about 40 per cent (Broadberry and Gardner 2016:32). Yet, evidence from Asia since the 1960s and the recent experience from Ethiopia and other African countries (Newman et al. 2016) suggest that three factors produce a different set of conditions that allow a speeding up of the labour transfer dynamics for

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<sup>3</sup> Oqubay (2015) quoting Lavopa and Szirmai (2012: 5) “evidence suggests that one job created in manufacturing will create a larger number of jobs in other sectors than one job in any other part of the economy”.

<sup>4</sup> Recent research from the World Bank also suggests that economic migration from rural areas to nearby towns rather than big cities holds substantial potential in terms of poverty reduction (Christiansen et al. 2018).

industrialisation: (a) new international division of labour and the rapid transition from old to new sources of manufacturing production, making it possible for low-income countries to industrialise despite low income per capita; (b) the dynamics of global production networks and flexible sourcing, which permit an expansion in the centres of production on a flexible basis over short periods of time; and (c) technological change affecting production processes in different manufacturing sectors and in different countries, which opens up possibilities for ‘trade in tasks’. So, Ethiopia will potentially not need to wait so long to substantially increase the proportion of jobs in dynamic high-productivity capitalist sectors.

Third, low productivity in ‘subsistence’ sectors is not enough to push a transfer towards new capitalist sectors. Thirlwall (2011: 216) notes that the wage differential between the new industrial (capitalist) sectors and ‘subsistence’ agriculture should at least offset the higher living costs in an urban or new environment, compensate for the “forfeit of non-monetary benefits of rural life”, and possibly compensate for more uncertainty in industrial employment if workers are not given permanent positions and turnover is high. This is highly relevant to Ethiopia as there is much debate around the adequacy of the level of wages initially offered by new industrial investors, as well as the living conditions around the industrial workplace.<sup>5</sup> There are other potential hurdles for a more successful labour surplus transfer, which are analysed in more detail in the following sections: addressing socio-cultural barriers and the problem of ‘work cultures’ and work ethic; sourcing workers and managing migrant labour; scarcity of employable skills (including soft skills); and the mismatch in expectations between employers and workers.<sup>6</sup>

These potential obstacles are all inter-related. The development of skills and adaptation to industrial work environments depends on the process of change in social norms, i.e., on the social construction of a work ethic for industrial capital; managing expectations also depends on how quickly such adaptation takes place; likewise finding and retaining workers depends on successful management of different expectations, developing the required skills, paying fair wages and creating the infrastructure that makes the transition easier to bear.

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<sup>5</sup> Interviews with trade union representatives (CETU) and firm managers (August 2017 and March 2018).

<sup>6</sup> These issues have also been selected in light of the most common challenges mentioned by new industrial investors, trade union leaders, government officials and new manufacturing workers in interviews conducted in 2017 and 2018.



### *Industrialisation, social change, and work cultures*

Historical analysis has shed light on how the process of building an industrial workforce is as much about social and cultural change as it is about economic.<sup>7</sup> There are multiple aspects to this process but for the purposes of this analysis it is worth focusing on the issues of time management and work discipline (or ‘work ethic’ as it is frequently called) as well as gender norms. Work ethic is a recurrent theme in conversations with foreign managers about their encounters with workers in new manufacturing destinations. In Ethiopia, the perceived lack of work ethic and discipline is a major complaint among newly arrived factory managers, especially those from Asia, who invest in developing ‘social skills’ among new workers, i.e., precisely timekeeping, understanding incentives, and reactive speed to boost productivity.<sup>8</sup> However, culturalist explanations are unconvincing as such complaints are historically recurrent. Kohli (2004: 370) convincingly argues that the issue of work ethic and productivity is socially constructed ‘either by corporations or by state structures and policies’. In other words, work cultures evolve and are shaped by broader economic and political changes.

Thompson (1967), in his analysis of early capitalist transitions, contrasts the task orientation of economic and social life in agrarian-based societies and their seasonal and irregular rhythms with the precise time focus and discipline of industrial capitalism. The introduction of new work habits did not just take the form of workplace time-sheets, timekeeping, and sticks and carrots on time management. It was a complex and all-encompassing process spanning factory relations, ideology, schooling, and cultural habits. New labour habits were thus formed over several generations through various interlinked mechanisms, e.g., division of labour, specialisation, labour supervision fines, clocks, bells, financial incentives, lectures, and the suppression or marginalisation of manifestation of tradition, in order to progressively improve the “commitment to the industrial way of life” (Thompson 1967: 90–93). Many of these discourses and processes are reproduced in contemporary experiences of structural change; as Thompson (1967: 91) puts it: ‘what was said by the mercantilist moralists as to the failures of the eighteenth-century English poor to respond to incentives and disciplines is often repeated, by observers and by theorists of economic growth, of the peoples of developing countries today’.<sup>9</sup> Resistance to socio-cultural change and specifically to

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<sup>7</sup> E.P. Thompson (1963) is a classic example of such analysis in his *Making of the English Working Class*.

<sup>8</sup> Interviews in Hawassa and Bole Lemi industrial parks, August 2017.

<sup>9</sup> See also O’Laughlin (2016) on the ‘cultures of work’ and how patronising discourses of ‘lack of work culture’ mask the variety of reasons underpinning low productivity and apparent lack of effort, which reflect conflictive perspectives from managers and employees. Behind a particular ‘culture of work’ often lie disaffection, class struggle, and thus conflict over effort.

proletarianisation is indeed a recurrent theme in the political economy of development, especially when there is no complete divorce from the land.

Recent episodes of labour-intensive industrialisation in Asia present similar obstacles. The fear of losing workers after some time when migrants do not fully commit to the factory way of life, as explained by various factory managers in Ethiopian industrial parks, is documented by authors researching new industrial working classes in Southeast Asia, for example, how young rural–urban migrants in Cambodia or Vietnam still perceive themselves as ‘rural people’ and see factory employment as a stepping stone to a return to the village in better conditions or to other less demanding but equally remunerative activities (Peou 2016 Tran 2013). Whether this aspiration is fulfilled or the one-way migration is consolidated is an empirical question (Carswell and De Neve 2013).

The issue is not simply the transition to industrial factory jobs, but rather the penetration of capitalist relations of production driven by productivity imperatives. In fact, there is a well-established ‘work ethic’ discourse that has been historically found in most instances of capitalist penetration, also in plantation agriculture (see Alatas 1977; O’Laughlin 2016). As argued by O’Laughlin (2016) we all have socially constructed ‘work cultures’, but dominant discourses focus on the individual when work cultures are collective in nature and are shaped by labour relations and different production processes. Indeed sustained productivity increases are the result of complex structural forces that transcend individual performance as understood by managers, and require the deployment of investment, infrastructure, and state-mediated systems of labour control, as Kohli (2004) and Amsden (2001) explain in their studies of industrialisation in developing countries.

Finally, social norms and cultural adaptation are also critical for the incorporation of women in factory work. Emerging labour-intensive factories in Ethiopia employ a large proportion of women, and gendered socio-cultural ‘clashes’ are worth considering. Evidence of such encounters abounds in the literature on industrialisation in Asia. For example, Ong (1987) argues that for Malaysian women factory workers the move from task-based village activities interwoven “into the flow of social life” (p.111) to the regimented patterns of industrial work was “traumatic” (p.168). Kabeer (1991) and Kibria (1998) both note how censure from home communities could inhibit workforce participation in Bangladesh, but such constraints seem negotiable given the large numbers of rural women in garment clusters all over Asia. In Bangladesh, Feldman (2009) notes that the state and NGOs enacted a process of acculturation

to women's participation in paid work before the garment sector took off, and factories had to de-sexualise the factory environment in order to project an image of factories as consonant with the local moral expectations (Kabeer 1991). Once taboos were broken, migrant networks were established and earlier migrants facilitated access to employment in factories for new migrant women (Kibria 1998). In short, as with problems of 'work ethic', social change happens and norms are negotiated and reframed.

### ***Finding and accommodating workers***

The previous two sections have documented some of the obstacles affecting a smooth and rapid labour surplus transfer and the building of an industrial workforce. Despite the expected pool of available labour in Ethiopia, there are still questions of how to source workers, especially considering that the use of migrant labour in factories is a well-established fact in early industrialisers and especially in the Asian context. Thus, many industrial investors ask whether workers will be available in the vicinity of factories and industrial parks or whether they will need to look for 'labour reservoirs' elsewhere.<sup>10</sup> Meanwhile, the question that the Ethiopian federal and regional governments ask is how to make job creation as inclusive as possible and give opportunities to young people, especially women, from different areas of the country. In short, having millions of potential workers scattered across parts of a large country with difficult terrain is no guarantee that factories will find workers easily.

The policy of development of industrial parks has generated opportunities to attract thousands of migrant workers from rural areas or nearby towns. More than 40,000 jobs have been generated in recent years by industrial parks, especially government ones (see Chapter xx). Most of these jobs are for unskilled or semi-skilled workers with limited educational background and often from rural areas, according to most factory managers interviewed. In the course of research conducted in some of these parks it soon became apparent that managing the move of thousands of people from rural areas to industrial clusters, and the infrastructure needed to accommodate this labour transfer, requires careful planning and potentially large investments. Both investors and government may contribute to create the infrastructure needed to absorb large inflows of people in unprepared towns or areas surrounding the parks. But this process is resource intensive and takes time. Thus frictions

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<sup>10</sup> There is evidence that the proportion of migrant population within different areas of the country is high. Abebe et al. (2016) report 36 per cent of migrants mostly from Amhara and Oromo in a large sample of job seekers in Addis. Labour force statistics also report proportions of migrants between 45 and 55 per cent in most urban areas (CSA 2014). Rural-rural migration also represents one-third of total recorded migration in 2013.

and obstacles in the early stages of operation of parks may be common in areas around the newly built parks.

The recent Asian industrialisation record shows that attracting and housing migrant workers is a critical aspect of the labour-sourcing problem. In Cambodia, as in Ethiopia, a steady stream of rural migrants move to factory sites in search of more regular cash, generating substantial competition for jobs, and therefore low wages (Derks 2008). However, when migrants arrive, they face living costs they did not anticipate and struggle to make ends meet in the initial stages, adding to potential high turnover in newly established factories. In some cases migrant workers depend on their rural households supplementing their low factory wages with resources such as rice (Kibria 1998). Alternatively firms or the state have to supplement wages with provisions that add to the social wage.

Housing is a key need. As evidence shows in Asia, the requirements of a ‘migrant labour regime’ in terms of housing and other social reproduction needs, are significant. Migrant labour regimes in Asia often come with the expansion of dormitory labour where companies are forced to invest in workers’ housing to ensure an adequate supply of cheap labour from poorer regions of the country, as the case of China’s export-oriented industrial zones of Guangdong, Zhejiang, and Shanghai demonstrates (Pun and Smith 2007). Although this may also help factories enhance labour control, a dormitory regime may be resisted by firms that are not prepared to allocate resources to workers’ accommodation with the added risk of having to meet highly demanding standards required by their buyers, as reported by a number of reluctant companies in Hawassa Industrial Park. According to our own interviews and information from the ILO Addis Ababa office, the proportion of T&G firms providing housing or housing allowances is still very low, although most provide workers with transport.

In Ethiopia, in the absence of large company-owned workers’ dormitories or workers’ ‘towns’ as in some Chinese and other Asian cities, the government must balance the options of extending public housing for migrant workers arriving in Hawassa, Mekelle, Dukem or Dire Dawa against incentivising the private sector and domestic residents to contribute to the expansion of the rental market. The first option requires large-scale investment that may not be immediately affordable in the absence of adequate finance. The latter option is subject to the uncertainty of take-up from local residents and real estate entrepreneurs, credit market constraints and indeed the moral hazard of potentially high rents for workers who earn low

wages.<sup>11</sup> Perhaps a three-pronged approach of combining public housing with (non-company-linked) industrial park dormitories and local rental accommodation may provide a good mix of incentives for workers with different preferences and constraints and make the ‘eco-systems’ surrounding the parks more enticing for rural-based workers who may otherwise be put off by a harsh working environment in terms of accommodation and local services. Much depends on how expectations are managed and the tolerance that migrant workers display in each context (see below).

An alternative option, if labour supply is constrained by conditions in urban centres, is to locate factories in rural areas, i.e., to move where the sources of cheaper labour are. Reasons for this vary. Tran notes that in Vietnam there is a national wage zoning system and investors have relocated to rural areas to take advantage of the fact they are in low minimum wage zones. In other contexts such as South India (Carswell and De Neve 2013) and Cambodia (Derks 2008) factories have relocated to villages in order to access labour that would otherwise not be willing to enter factory work or migrate. Whether this is an option for Ethiopia in the future remains to be seen but clearly not in the current context given existing infrastructure gaps.

### ***Developing skills***

Finding and housing workers coming from different parts of the country is challenging enough, but making sure they are employable and potentially productive so as to sustain the expansion of a globally competitive industry in Ethiopia is demanding too.

Evidence suggests that Ethiopia’s skills gap remains substantial considering the needs of a fast-expanding industrial sector. Comparatively, the quality of Ethiopia’s labour supply on average appears lower than many other African countries both in terms of nutrition indicators and in terms of education levels, despite vast improvements in the last 20 years (Sender et al. 2005). By 2011 the mean number of years of schooling for adults over 25 was only 2.41 (3.58 for male adults), suggesting that a large proportion of the adult population are still functionally illiterate and innumerate.<sup>12</sup> Adult literacy rates have improved substantially in the past ten years from 30 per cent to nearly 50 per cent but there is still progress to be made. Youth literacy rates are higher but there are still 30 per cent of youth, many women, who are

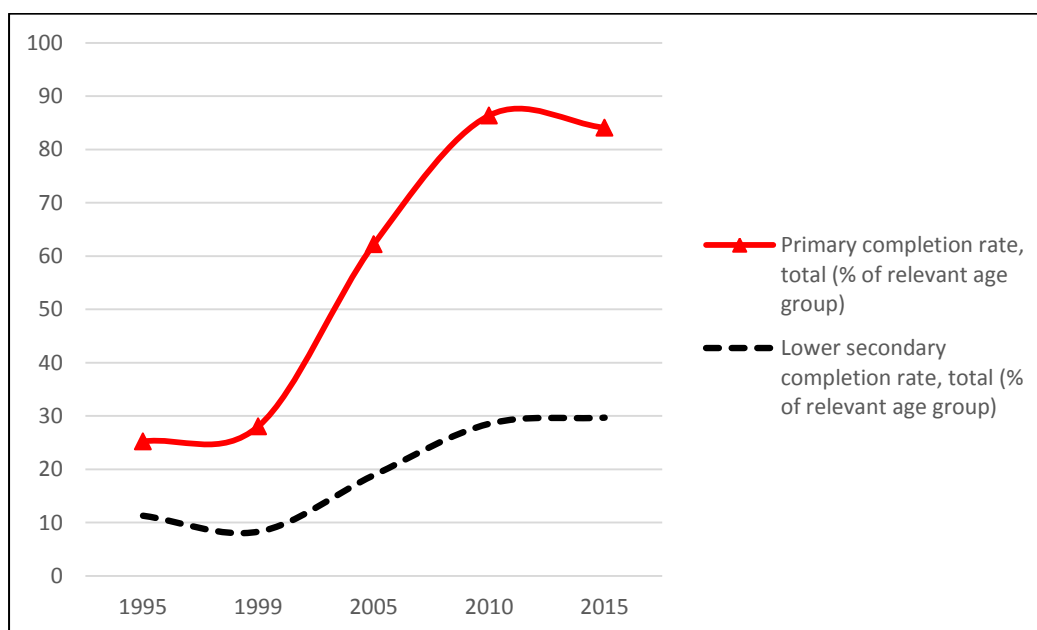
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<sup>11</sup> In various interviews with factory managers and trade union leaders the private housing option in Hawassa was questioned in terms of its potential scalability.

<sup>12</sup> Data quoted in this paragraph have been largely estimated from the online UNESCO datasets accessed at <http://data.uis.unesco.org/#>

not literate according to official statistics (this does not necessarily mean functionally illiterate as rates for this may be higher). Primary completion rates have very substantially increased from only 14 per cent in 1994 to 54 per cent in 2015, whereas lower secondary completion rates have also increased, albeit less rapidly, from 12 per cent to 30 per cent over the same period (see Figure 34.1). Despite rapid improvements in the last 25 years, more than half of the urban labour force has primary or no education, which contrasts with much higher levels of education for unskilled workers in industrialising economies in Southeast Asia, such as Cambodia or Vietnam where the median education of an urban worker is higher secondary education (World Bank 2016: 30, quoting data from the UEUS 2014 survey).

**Figure 34.1 Completion rates for basic education, 1995–2015**



*Source:* Author's elaboration from UNESCO database

It is important to consider the educational attainment in rural areas and especially for women, since emerging industrial parks are focusing on the recruitment of young women from rural areas. According to the latest labour force survey with data from June 2013, 58 per cent of rural women never attended school and only 1.4 per cent had reached secondary school without completing it, meaning that most of the roughly 40 per cent having attended school only completed a grade within the 1–8 basic education level (CSA 2014: 43).<sup>13</sup> Vast inequalities in education provision are present, and the literature on Africa has shown that the inadequate quantity and quality of provision in rural schooling systems are an outcome of the

<sup>13</sup> This dataset includes population aged 10 and above. Therefore some figures are lower than the usual attainment indicators that only include population 15 and above.

high degree of bias towards expenditures on students in the upper levels of education provision and training systems designed to quell the potentially restive educated urban male entrants in the labour market (Sender et al. 2005).

In Ethiopia, in fact, at the other extreme of the education levels, substantial improvements have been achieved in the expansion of higher and post-secondary education with the number of graduates in key fields for industrial development increasing since the 1990s, but gaps both in quantity and quality of employable graduates persist. According to the NLFS 2013, out of about 3.4 million trained Ethiopians with a certificate/diploma/degree, almost half studied social sciences, only 209,000 did engineering and allied services and just over 60,000 focused on production operations (CSA 2014: 46). Data for Addis Ababa University in 2011 confirm this distribution: the Institute of Technology produced 542 graduates (half for civil engineering) out of a total of nearly 10,000 graduates, i.e., just about 5 per cent (calculated from FDRE-MoE 2011). The balance is not skewed towards the kinds of fields that are most relevant to industrial operations. The practice in Sri Lanka is informative and points to possible directions that Ethiopia could take. The development of the textile and garment (T&G) industry and the rapid expansion of the domestic network of second- and third-tier suppliers was facilitated by and generated pressure for the creation of specialised training institutions to serve the sector. Thus the Textile Training and Services Centre (TTSC) and the Clothing Industry Training Institute (CITI) were established in 1984, remaining under the responsibility of the Ministry of Industry and eventually merged under Parliament Act No.12 in 2009 to create the Sri Lanka Institute of Textile and Apparel (SLITA) (Kelegama 2009). These institutes received substantial external support from Japanese aid and UN agencies and established collaborations with top global institutions in the field of textile technology.

Ethiopia therefore faces a double test that must be tackled in tandem. First is transforming an overwhelmingly rural workforce with little education and no relevant experience in time-driven jobs into a factory-type disciplined and highly productive labour force. Second is producing the required talent and experience for middle management and technical/skilled workers for much-needed positions in emerging factories across the country. This means that existing training programmes must be connected on a systematic basis with the growing manufacturing sector, by making sure, for example, that all graduates in relevant occupations require 6–12s month on-the-job training/modules in real factories, or by linking TVET (technical and vocational education and training) programmes with industrial parks and areas where industrial clusters develop.

Vocational and technical training is usually reported to be critical in this regard. Progress has indeed been made in the past ten to fifteen years but a large proportion of pupils going through the schooling system still do not benefit from TVET. Since 2001 the growth in absolute numbers has been remarkable though: from less than 9,000 vocational pupils in the secondary system (less than 1 per cent of total in secondary) to more than 350,000 enrolled in 2015, i.e., about 8 per cent of the total.<sup>14</sup> It is not clear, however, how many of these young people acquire enough *relevant* skills for industrial occupations. Analysis of TVET data from 2011 (FDRE-MoE 2011) suggests that only 15 per cent of all graduates acquire skills directly relevant to factory work.<sup>15</sup>

The building of industrial work skills is also achieved through decades of manufacturing experience and on-the-job training. Prior manufacturing experience contributes to further industrialisation, a point long emphasised by Amsden (2001) in her analysis of the industrialisation prospects for developing countries. Amsden concluded that the period under Japanese occupation was critical in the building of an industrial workforce as “Korea had ... accumulated by the (WWII) war’s end considerable manufacturing experience in the form of a *workforce accustomed to paid labor (under very disciplined conditions)*, a managerial elite with production capabilities in a wide range of industries and government bureaucracies, as well as a small cadre of entrepreneurs with project execution skills, both in private and public enterprise” (Amsden 2001: 104, emphasis mine).<sup>16</sup> Ethiopia does not currently enjoy this prior manufacturing experience, despite the usefulness of the recent growth in floriculture (see Chapter 28), but this historical lesson underscores the importance of current dynamics of investment in light industries for the future expansion of the manufacturing sector and the critical role that factories will play in contributing to develop industrial work skills.

The combination of decent basic education and factory-level training seems the way forward in early stages of industrialisation. As suggested by many industrial employers interviewed in 2017–18, more than the scarcity of TVET graduates, the problem for unskilled workers is that lack of schooling and low quality of education have implications for the adaptation of workers to a factory environment and the quality and time-efficiency demands that a global

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<sup>14</sup> A recent randomised control trial on job seekers in Addis Ababa reported that 43 per cent from a sample of over 4,000 people had finished a course or vocational training at an official vocational college or TVET, suggesting that in large urban pools of unemployed youth access to TVET is not negligible (Abebe et al. 2016).

<sup>15</sup> See also Sender et al. (2005) for critical appraisal of the effectiveness of TVET programmes elsewhere in Africa.

<sup>16</sup> The early stages of industrial working-class formation in Korea had been achieved during Japanese occupation, as described in detail by Kohli (2004: 58–60).



production network expects to meet. Basic literacy and numeracy are essential but also the social skills needed to be productive in highly demanding working environments. Social skills such as time management, work discipline, and speed of reaction may or may not be acquired in schools but workers with more schooling are more likely to develop them more quickly if on-the-job training is adequate.<sup>17</sup> Indeed, a key issue is that workers come with enough basic education of decent quality to become ‘trainable’.<sup>18</sup>

Direct and indirect employment is therefore likely to become a crucial source of skill development given the context of education provision. Evidence suggests that firms/investors are particularly likely to contribute to sustainable skill development through ‘tacit knowledge’ related to production, especially organisational and management capabilities that are likely to be transmitted through two main channels (Calabrese 2017): (a) by employing middle-level Ethiopian managers and factory-floor supervisors, whose job experience will be crucial to disseminate to other companies as the number of domestic firms expands and; (b) through sub-contracting schemes that will connect domestic companies and their employees with lead firms in their clusters. The state has a coordinating role to play to make sure these mechanisms are activated and sustained.

### ***Managing expectations***

If finding enough workers with the skills needed is a challenge, retaining the emerging industrial workforce may also prove difficult in early stages of industrial development. Wage determination, workers’ expectations, and reservation wages in the early stages of mass job creation in factories can lead to high turnover, an unstable labour force, and the negative effects on productivity that so many firms fear when setting up operations in a new country with little prior manufacturing experience.

There is a potential contradiction between the expectations of some investors of finding low-cost (and initially unproductive) labour and the expectations of potential workers of finding decent jobs with levels of remuneration that should substantially exceed wage levels in other low-productivity sectors in the economy. In the Ethiopian context, given the absence of a national or sector minimum wage there is a risk of a process of wage setting that is not sufficiently incentivising even for poor rural migrants as demonstrated in the case of

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<sup>17</sup> This was perhaps one of the most often repeated points by factory managers and floor supervisors.

<sup>18</sup> T&G factory managers report that hired workers should have a minimum of grade 8, although this requirement may not be systematically enforced (interviews with factory managers in March 2018).

floriculture (see Chapter 28). Wages may be set too low, as emerging evidence from some industrial parks seems to suggest.<sup>19</sup> At the same time, the performance of the industry may not really depend on marginal increases in wages even when profit margins are low. For example, Oqubay (2015: 168) reports that the share of operating costs for one of the most labour-intensive industries in the country, floriculture, was only 10.4 per cent in 2012. Air freight represented over 55 per cent of costs. Similar figures apply to light manufacturing sectors. Employers may have different reasons to resist wage increases in these situations, especially when initial productivity levels are very low (and therefore unit labour costs not low enough), and are wary of generating expectations that may lead to unsustainable wage increases, as various managers reported in our interviews. However, the survival of these firms will not be affected by reasonable increases in nominal wages from a low base, especially in a context of rising living costs.

Another unsurprising source of contrasting expectations, which can hinder a smooth development of the industrial workforce, is the potential clash of work cultures that arises in initial encounters between rural-based workers and factory managers. As discussed above, there is plenty of historical literature and studies of contemporary processes of industrialisation in Asia that document these clashes and the mechanisms and processes of resistance, negotiation, and adaptation that accompany the building of an industrial workforce. The practical question for Ethiopia is how the process of adaptation and change can be accelerated through a careful combination of state interventions at level of sourcing and grading of workers, and clear guidelines for processes of induction of new workers in factory environments, a remit of human resource departments that are often too focused on hiring and firing matters. The critical issue, therefore, is the process of convergence of different work cultures and the endogenous mechanisms of adaptation of both workers and management to generate both competitiveness and adequate labour conditions, even if the process may sometimes entail conflict over ‘effort’.

For Ethiopian policymakers a key issue will be to consider what is the *minimum* that employers should offer even in a context where ‘cheap labour’ is a key attracting point. A statutory minimum wage or sectoral collective bargaining would definitely contribute in this direction. Considering that labour costs may not be the leading cost component in most

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<sup>19</sup> Especially the case in Hawassa, according to interviews in August 2017. A recent diagnostic survey conducted by the ILO in 46 T&G factories confirms the excessively low wages especially for low-skilled workers (interview at ILO, Addis Ababa, March 2018).

industries, there is margin for improvement in basic wages and also for expansion in the social wage, especially in the form of accommodation and food provision. Meeting basic expectations on those fronts will not only generate the incentives for more youth from rural and urban areas to join the ranks of more productive industrial workers, but will also generate conditions for a faster rate of catching up in productivity by having a better selection of workers, lower turnover, and also better conditions for learning on the job. Leaving the bar too low in the short term may mean higher long-term costs for industrial investors as progress towards higher productivity and better product quality is slowed down, as lessons from the experience in floriculture suggest (see Chapter 28).

There is another consideration that should inform interventions to manage conflict of expectations in early stages of industrialisation. Cramer (2011), in his study of youth unemployment and violence, suggests that a key source of conflict lies in disaffection from those with poor-quality jobs rather than those without jobs. While emphasis on mass job creation and ‘quantity’ of employment is pertinent and understandably seems to dominate existing policy discourses, demeaning and exploitative working conditions or unmet expectations may fuel violence as much as or more than the absence of jobs. Indeed, those with jobs are also more likely to be able to mobilise whether through trade unions or not. There is already some evidence of mobilisation and strikes in factories and industrial parks in recent years despite a very weak level of unionisation across sectors.<sup>20</sup>

This is particularly relevant in the current scenario where instances of social unrest may threaten the stability of the country and the viability of accelerated industrialisation. An additional argument is that a successful and sustained industrialisation process is also conditional on broad acceptance and support from the working class. In contemporary Ethiopia, a backlash against industrialisation derived from perceptions of harsh working conditions can make the task of sourcing and retaining workers even more difficult.

## **Conclusions**

This chapter has offered a selective overview of the obstacles to and dynamics of the process of creation and formation of an industrial workforce in an agrarian-based economy. The overview combines evidence on the current situation in Ethiopia with historical lessons from the *longue durée* of structural transformations in early industrialisers and in recent

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<sup>20</sup> According to interviews with trade union leaders in the relevant industrial federation union density in the T&G sector does not exceed 20 per cent yet. Interviews in Addis Ababa, March 2018.

experiences of industrial workforce formation in Asian contexts. A key lesson from history, this chapter argues, is that the process of building an industrial working class is uneven, protracted and requires interventions and important economic and social shifts across a wide range of aspects over long periods of time.

Historically, the process of building an industrial and more productive workforce has encountered different kinds of obstacles that must be addressed to avoid premature de-industrialisation (Rodrik 2015). Some are structural obstacles derived from the demographic, social and economic constraints common to many developing countries yet to achieve structural transformation. Some are related to the dynamics of emerging industrial relations in predominantly agrarian-based settings. The historical literature teaches us that even with potentially unlimited supplies of labour the process of labour surplus transfer is neither automatic nor always equally dynamic. Much depends on the interaction between local, national, and global contexts and how such interactions shape the potential incorporation of countries into dynamic global production networks in manufacturing. State policy certainly matters in terms of making the formation of an industrial workforce more rapid and sustainable but ultimately the political economy of accumulation and of the encounters between foreign or national industrial employers and the emerging working classes originating from low-productivity agricultural or informal activities determines the path towards a more stable and productive industrial workforce. For Ethiopia key challenges include (a) the process of smoothly managing labour transfer from agrarian-based settings to clusters of industrial production, especially industrial parks, and the resource costs and frictions of such transfers, especially housing provision; (b) strengthening and shaping the processes of skill development (both schooling and on-the-job training) to speed up the transition to a more productive industrial labour force; and (c) dealing with contrasting expectations from employers and new industrial workers and the inevitable conflicts that such encounters often generate, particularly when wages are too low and wage good inflation too high.

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