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## Work, Employment, and Training through Africa-China Cooperation Zones: Evidence from the Eastern Industrial Zone in Ethiopia

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PAPER

NO. 19

SEP 2018

# CHINA★AFRICA RESEARCH INITIATIVE

## Work, Employment, and Training Through Africa-China Cooperation Zones: Evidence from the Eastern Industrial Zone in Ethiopia

Ding Fei



JOHNS HOPKINS  
SCHOOL of ADVANCED  
INTERNATIONAL STUDIES

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**NO. 19 | SEPTEMBER 2018:**

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# ABSTRACT

**SAIS-CARI WORKING PAPER  
NO. 19 | SEPTEMBER 2018:**

“Work, Employment, and  
Training Through Africa-  
China Cooperation Zones:  
Evidence from the Eastern  
Industrial Zone in Ethiopia”

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This working paper investigates the developmental impacts of Ethiopia’s Eastern Industrial Zone (EIZ), with a particular focus on local employee experiences of working for, training with, and learning from resident companies. As an emerging mode of Africa-China cooperation, the promotion of Chinese special economic zones (SEZs) has attracted much academic and media attention. However, little is known about the development trajectory of particular SEZs, especially how skills transfer is delivered to and received by local workers in different Chinese companies. Taking the EIZ as a case study, this paper provides a cross-company and cross-sector analysis of local worker experiences. It draws upon a survey of 204 local workers from 16 resident Chinese companies working in the footwear, auto assembly/parts, textiles, industrial materials, construction, and logistics sectors, as well as key informant interviews with Chinese expatriate managers and technicians from selected companies. Findings from this research highlight both similarities and differences in company management strategies and training provisions, which are contingent upon industry sector, scale of production, and market conditions. While sixty percent of the surveyed local workers did receive training of varying quality and length, they were not satisfied with the training provided and promotion opportunities within their current companies. This paper concludes by arguing for concrete and targeted policy implementation by the Ethiopian government to enforce skills transfer by foreign investors, building of linkages between companies and local training institutions, and organizing zone-wide skills sessions.

## INTRODUCTION

THE EXTENSIVE AND INTENSIVE GROWTH OF AFRICA-CHINA cooperation comes with the sharing of development experiences and transfer of so called “Chinese models” to African countries.<sup>1</sup> One such model involves the designation of Special Economic Zones (SEZs)<sup>2</sup>, which are widely believed to have been crucial to China’s economic takeoff and rapid urbanization during its post-reform era. The commonly cited example is the transformation of Shenzhen from a small fishing village into a large industrial center and a full-fledged modern megacity of over 12 million people.<sup>3</sup>

The success of Chinese SEZs as facilitators of domestic job creation, urban development, and wider political-economic reform have generated hope among African elites who believe that SEZs can foster industrialization in their respective countries. This expectation was formalized in the “Overseas Trade and Economic Cooperation Zone” (OTECZ) program during the 3rd Forum on China-Africa Cooperation (FOCAC) in 2006. Chinese ministries, banks, and enterprises have since then supported the construction and management of six SEZs in five African countries.<sup>3</sup> Chinese private enterprises have also begun to construct private SEZs through direct negotiation and cooperation with local African governments.<sup>4</sup> The December 2015 FOCAC meeting in Johannesburg further acknowledged the success of SEZ-based cooperation and targeted the incorporation of China’s “One Belt, One Road initiative” with Africa’s economic integration and sustainable development agenda.<sup>5</sup>

Particularly in Ethiopia, the federal government has embraced SEZs as a key strategy for nation-wide industrialization.<sup>6</sup> Ethiopia’s Second Growth and Transformation Plan specifies an agenda for “pursuing aggressive measures towards rapid industrialization and structural transformation [... and] becoming a lower middle income country by 2025.”<sup>7</sup> A key implementation strategy for the stated objectives is through the development of industrial parks and clusters. Investments and expertise from China are especially welcome to expand export-oriented manufacturing sectors, generate employment opportunities, and facilitate skill and technology transfers.<sup>8</sup>

Ethiopia already hosts one of the official OTECZs under FOCAC, the Eastern Industrial Zone (EIZ), which was designed by following the model of Zhangjiagang Free Trade Area in China.<sup>9</sup> Despite a difficult start, both Chinese and Ethiopian officials have acknowledged the EIZ’s performance and believe the zone will be a national model for new generation of Ethiopian SEZs.<sup>10</sup>

However, most of the new SEZs in Ethiopia are in the early stages of planning, construction, or operation with limited empirical information regarding their long-term impacts on Ethiopia’s economic development. One stated goal of SEZs is the promotion of local job opportunities and skills transfer. While studies have acknowledged the initial contribution of Chinese OTECZs to local employment in Africa, few have focused on the experiences of local workers and their perspectives about working for, learning from, and training with zone resident companies.<sup>11</sup>

<sup>a</sup> This paper uses the generic term of Special Economic Zone to cover all possible forms of designated geographic areas that receive special administrative, financial, and regulatory treatment for particular economic, industrial, or technological development purposes.

This working paper investigates the issues of management, training provisions, and skills development among SEZ resident companies through the perspectives of local workers. Empirical analyses draw from two-months of fieldwork in the EIZ, during which mixed-method research of field observations, interviews, and opinion surveys were conducted. Specific objectives are to investigate 1) the operational strategies of zone resident companies engaged in different sectors; and 2) the perspectives of local workers about their work experiences, training opportunities, and skills development prospects in the companies.

The rest of the paper is structured as follows. The background covers China's and Africa's experiences with SEZs respectively, and the current literature on macro-economic analyses of Chinese SEZs in Africa. It highlights the importance of examining the impacts of SEZs on the basis of sustained economic, political, and social transformation, rather than a short-term boost in export earnings. The case study section provides an overall discussion of Ethiopia's SEZ strategy and planning, and the role played by Chinese contractors in the construction of zones. The section also introduces the background of EIZ and its resident companies. "Working and learning in the zone" presents the major findings of the research with discussions of employee demographics, work-life schedules, and workers' perceptions of work and training. The last section concludes the paper with four brief policy recommendations.

## BACKGROUND

### CHINA'S EXPERIENCES WITH SPECIAL ECONOMIC ZONES

WHILE THE IDEA OF SEZs DOES NOT ORIGINATE IN CHINA, Chinese SEZs have distinctive economic, political, and social influences on the country's domestic reform. The economic logic of SEZs lies in attracting transnational capital to facilitate domestic industrialization through pro-investment policies such as tax holidays, facility or raw material cost deductions, and labor law exemptions.<sup>12</sup> In China, SEZs allowed the socialist government to designate certain areas as test grounds for market-based economic policies, hence facilitating a gradual opening-up of the country to international markets.<sup>13</sup>

Following the development of the first four SEZs (i.e. Shenzhen, Zhuhai, Shantou, and Xiamen), diverse types of SEZs were developed along China's eastern coast, including but not limited to Open Cities, Free Trade Zones, Special Economic and High-tech Industrial Zones, and Inner-city Science and Technology Zones.<sup>14</sup> These zones aimed not only to attract foreign investment, but also to invite and absorb new technologies in cutting-edge industries. In this way, they helped forge linkages between advanced foreign technologies and indigenous industries, as well as local research institutes and universities.<sup>15</sup> By capitalizing on specific locational advantages, SEZs operated as the intermediary space between local and transnational economic activities.<sup>16</sup> Global capital, therefore, interacted and co-evolved with domestic

industries through production chain participation, knowledge sharing, and technology transfer.

However, foreign capital and preferential domestic policies by no means flowed across the nation in a continuous manner. They *hopped* across geographic regions and created hotspots of concentrated investment and economic activity, which resulted in uneven development and income inequality across the country.<sup>17</sup> To mediate the geographic inequities due to clustered development, the Chinese government later prioritized northern and western regions as new hubs for property and industrial investment.<sup>18</sup> Three regional development zones were thereafter proposed, including the Great Western Opening Up, the Northeast Revitalization, and the Rise of the Central. Linkages were also forged between developed and under-developed regions through inter-provincial partnerships assigned by the central government.<sup>19</sup>

SEZs in China exemplified how states took the lead to steer the dynamic path of national development, which transformed China's urban and industrial landscape in profound ways.<sup>20</sup> Geographers applied a metaphor of geographical layers to comprehend the spatiality of Chinese SEZs: the newly assigned SEZs and other development projects were deposited onto the existing spatial arrangements. These new "layers" of SEZs overlapped and interacted with existing ones, generating a complex and uneven geography of Chinese development.<sup>21</sup> Ong further identified the interplay of state, sovereignty, and neoliberal strategies through zoning techniques. In her account, neoliberal spaces created by SEZs enabled the building of transnational economic networks between China and other territorial regimes (i.e. Hong Kong, Macau, and Taiwan). Greater economic connectedness would then promote political acceptance, and finally integrate disarticulated political territories to create a greater China.<sup>22</sup> SEZs, therefore, constructed an economic bridge to generate "variegated but linked sovereignty".<sup>23</sup>

Not only have SEZs opened up new political-economic spaces for market-based activities in post-reform China, they have also restructured the geographies of everyday living. SEZ-associated land development became the initial layout for China's booming urban areas.<sup>24</sup> These new or expanded city-regions became central arenas for contested social and environmental processes, intensifying issues of land allocation, ecological sustainability, and the well-being of migrant workers.<sup>25</sup> SEZs in China, therefore, represent both an economic miracle and a mechanism for expanding social inequality.

## **AFRICA'S EXPERIENCES WITH SPECIAL ECONOMIC ZONES**

AS SEZs IN CHINA HAVE EXPERIENCED CRITICISM and mounting social concerns, their "transplantation" in Africa deserves more careful scrutiny. SEZ-led development in Africa has a long history, yet has not been as successful as initially hoped.<sup>26</sup> While manufacturing zones in countries such as Mauritius, Madagascar, and Lesotho have contributed to increasing exports, the scale of economic growth has hardly been comparable to that in China, nor have these SEZs facilitated country-wide industrial development or structural changes in the national economy.<sup>27</sup>

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*In particular, a successful SEZ does more than promote employment in the short-run: it also fosters efficient skills development, expands employees' career choices and autonomy, improves job-entitled welfare conditions, and reduces employment inequality.*

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A 2011 World Bank report distinguished three types of possible economic outcomes of SEZs in Africa.<sup>28</sup> First, they can contribute to short-term (i.e. static) economic growth through the deployment of preferential trade and investment policies. Second, SEZs can lead to long-term (i.e. dynamic) development through technology transfer, incorporation of domestic industries, and structural transformations of national economic systems. Third, SEZs can ultimately improve socioeconomic equality across the country. The report concluded that African governments made little progress to promote the second and the third types of outcomes in their economies. On the contrary, SEZs generated very low levels of exports, capital-intensive investment, or job opportunities, and exacerbated gender and income inequalities in the host country.<sup>29</sup>

In analyzing the underperformance of African SEZs, the World Bank report and other parallel studies point out issues of weak governance, political instability, poor regulatory and institutional framework, inadequate transport and power facilities, and lack of industry-wide coordination.<sup>30</sup> On the level of SEZs, the unsatisfactory performance was due to inefficient zone management and expertise, lack of strategic planning, and limited linkages to local enterprises.<sup>31</sup>

The promotion of Chinese SEZs in Africa, according to official statements, aims to transfer the key component of China's development success and incentivize small Chinese businesses to invest in Africa.<sup>32</sup> Most SEZ developers and investors receive a standard package of pro-investment incentives from both host African governments and the Chinese government.<sup>33</sup> However, Chinese SEZs differentiate themselves from previous African SEZs in that they are not developed solely as a result of economic imperatives, but under the umbrella of broader inter-governmental cooperation. While market-based decision-making between Chinese and African private parties has often been emphasized, both sides also have vested political and diplomatic interests to "make the zones work".<sup>34</sup>

Nonetheless, it is uncertain if the SEZs can attract significant Chinese investment to increase host countries' employment opportunities and elevate industrial competitiveness. In particular, a successful SEZ does more than promote employment in the short-run: it also fosters efficient skills development, expands employees' career choices and autonomy, improves job-entitled welfare conditions, and reduces employment inequality.<sup>35</sup> All these require a determined host state in leveraging national advantages, mobilizing policies, resources, and expertise, and monitoring the actual management and operations of SEZs. Without such state determination, SEZs may lead to a "race to the bottom" among countries to lower labor standards, suppress union rights, and over-empower transnational investors.<sup>36</sup>

One debatable aspect of Chinese overseas companies' practices is the recruitment of expatriate Chinese workers as managers or technicians, which has aroused criticism regarding local job creation, working conditions, and labor conflicts.<sup>37</sup> Earlier studies on foreign expatriates in Africa showed that their presence might promote skills and technology transfer through on-the-job training, but also implied a stronger foreign control of business operations. Another associated concern is the loss of quality or



well-paid jobs for locals, which would in turn lead to sub-standard work environments, job insecurity, or limited skills acquisition. Mireri, in studying Kenyan SEZs, described the positions for locals as “dead-end jobs” that offered little room for promotion or career development.<sup>38</sup> Jauch similarly argued that foreign investors who were attracted by pro-investment policy packages had little interest to invest in new technologies, skills upgrading, or social benefits.<sup>39</sup> The lack of motivation on the part of foreign investors, together with the absence of a conscious host country plan in driving SEZ-based skills development cast much doubt upon the net benefits of SEZs. Concerns of these kinds necessitate timely scholarly investigation of the performance of Chinese SEZs in Africa. Ethiopia provides an especially important case to study given its recent adoption of SEZs into its national industrialization agenda.

## CASE STUDY: SPECIAL ECONOMIC ZONES IN ETHIOPIA

SEZs, CONSIDERED A MAJOR NATIONAL STRATEGY to jump-start China’s economic growth, have become a key instrument of the Ethiopian state’s development agenda. As the second-most populous country in Africa with a total labor force of 47 million as of 2014, the country has maintained relatively steady economic growth, averaging 10.6 percent GDP growth per year between 2005 and 2015.<sup>40</sup> The second Growth and Transformation Plan (GTP II, 2015 - 2020) and the Ethiopian Industrial Development Strategic Plan (EIDSP 2013-2025) both specify the goal of bringing about structural transformation by increasing the share of the industrial sector to 27% of GDP by 2025 (13% as of 2012), and manufacturing sector to 17% (4% as of 2012).<sup>41</sup> One key program to achieve the stated goals is the designation of SEZs across the country. In particular, as the EIDSP states:

“Land of 7 million square meters will be made available for investor engaged in manufacturing and related sectors, four pilot agro industry parks will be established which will be linked with millions of smallholders to supply inputs, regional administrations, cities and towns will get the necessary support to develop standardized industrial clusters and parks for those investors promoting from small to medium industries, and hence generate employment opportunities.”<sup>42</sup>

EIDSP also highlights strong “public-private partnership as well as development partner governments” in the construction of SEZs.<sup>43</sup> Central ministries (particularly the Ministry of Trade and Industry and the Ministry of Agriculture) promoted SEZs for targeted sectors (e.g. garment, footwear/leather, and agro-processing), while regional governments also welcomed SEZs for local industrial growth. The Industrial Parks Development Corporation (IPDC) was established in 2014 by the Council of Ministers (Regulation 326/2014) to manage the development of large, medium, and light SEZs.<sup>44</sup> IPDC also serves as an industrial land bank to lease, transfer, and sell lands to

developers. In addition, Industrial Parks proclamation 886/2015 was published in 2015 with information on rights and obligations of SEZ developers, operators, enterprises, and residents respectively.

Meanwhile, the federal government has taken a number of measures to improve infrastructure (e.g. roads, power, telecommunication, and water), reduce corruption, and expedite customs and logistics services (i.e. one-stop service). A number of preferential policies were also put forward by the Ethiopian Investment Commission (EIC) that offer tax reductions and logistics support to potential manufactures and developers (Table 1).<sup>45</sup>

**Table 1: Incentives Provided by Ethiopian Government**

For Manufacturers	For Developers
<ul style="list-style-type: none"> <li>Exempt from income tax for 8-10 years</li> </ul>	<ul style="list-style-type: none"> <li>Exempt from income tax for up to 15 years (outside Addis Ababa)</li> </ul>
<ul style="list-style-type: none"> <li>Exempt from duties and other import taxes on machinery, construction materials, spare parts with a value of 15% of capital goods after business license, vehicles, and raw materials used for the production of export commodities</li> </ul>	<ul style="list-style-type: none"> <li>Exempt from duties and other taxes on imports of machinery, construction materials, spare parts, 15% of capital goods after business license, vehicles and raw materials</li> </ul>
<ul style="list-style-type: none"> <li>One-stop government services within park premises</li> </ul>	<ul style="list-style-type: none"> <li>One-stop government services within park premises</li> </ul>
<ul style="list-style-type: none"> <li>Land lease term: 60-80 years at nominal rate for factories and residential quarters</li> </ul>	<ul style="list-style-type: none"> <li>Land lease term: 60-80 years at nominal rate for factories and residential quarters</li> </ul>
<ul style="list-style-type: none"> <li>Expedited procedure for securing entry, work permit, and certificate of residency for expatriate personnel (and their dependents) working in industrial parks</li> </ul>	<ul style="list-style-type: none"> <li>Provision of essential infrastructure, including dedicated power substations</li> </ul>
<ul style="list-style-type: none"> <li>Customs facilitation: transport of imported raw materials straight from customs post to factory through bonded export factory scheme</li> </ul>	

Source: Ethiopian Investment Commission, 2016

While the IPDC controls most of the SEZs, it has been the local or international contractors that have completed the actual construction. Financial support came either from the federal/regional government, through issuance of Eurobonds, or through international loans from the World Bank or the Export-Import Bank of China.<sup>46</sup> However, the Ethiopian government seems to prefer awarding SEZ projects (from design to construction) to contractors who have their own sources of financing.<sup>47</sup> Preferred qualifications of bidding firms include 1) an annual turnover of six billion birr, 2) experience of building at least two industrial parks; and 3) a positive business track record in Ethiopia.<sup>48</sup> Although bidding is open to local and international contractors, in practice these requirements disadvantage local companies as most are new and lack international experience.

By the end of 2016, 19 SEZs were either under operation, construction, or planning in Ethiopia.<sup>49</sup> Four Chinese companies – China Civil Engineering Construction Corporation (CCECC), CGC Overseas Construction Group (CGCOGC), and China

Communications Construction Corporation (CCCC) had won or were in the process of bidding for at least nine SEZs.<sup>50</sup> Contracts to build associated SEZ facilities (e.g. electricity grids, telecommunication) were also expected to be awarded to other Chinese SOEs and private companies.<sup>51</sup>

Given the rapidly growing number of SEZs and the fact that Ethiopia is relatively new in terms of SEZ-based development compared to other African countries, it is important to assess their performance with regards to contributions to local skills development.<sup>52</sup> The EIZ, as the earliest private SEZ in Ethiopia, offers an opportunity for close scholarly scrutiny.

### BACKGROUND: EASTERN INDUSTRIAL ZONE (EIZ)

THE EIZ, LOCATED ABOUT 32 KILOMETERS SOUTH OF ADDIS ABABA, was the country’s first private SEZ and approved as an official OTECZ by the Chinese Ministry of Finance (MOF) and Ministry of Commerce (MOFCOM) in 2015.<sup>53</sup> It is situated near the town of Dukem in the Oromia Region and along the main highway to the Djibouti port. As a land-locked country Ethiopia relies on Djibouti’s port to handle its overseas trade, accounting for about 70 percent of trade at the port.<sup>54</sup>

Like several other Chinese SEZs in Africa, the EIZ was built following the model of Zhangjiagang Free Trade Zone (ZFTZ) in Jiangsu province.<sup>55</sup> A consortium of three private Chinese developers from the Zhangjiagang municipality are listed as the shareholders of the EIZ including Qiyuan Group, Yangyang Pipe-making Company, and Jianglian International Trading Company. The consortium won the OTECZ tender from MOFCOM in 2007 to build a 500-hectare zone. The Ethiopian government began land acquisition that same year.<sup>56</sup> However, the project was halted in 2008 due to the Global Financial Crisis, but resumed in 2010 with funding from the Export-Import

Bank of China, and the Zhangjiagang municipal and Jiangsu provincial governments.<sup>57</sup> Construction accelerated afterwards, according to multiple years of satellite imagery of the zone area (Table 2, Figure 1). Land development both inside and surrounding the EIZ was easily discernable in 2015. In 2016, additional factory sheds were built, enclosed land developed, and new development was made in the surrounding area.

In addition to policy incentives from the EIC, Chinese companies also receive financial, logistical, and consultancy support to invest in the EIZ from different levels of Chinese government. For example, the central government offers grants for

**Table 2:** Enclosed and Constructed EIZ Area (in hectares)

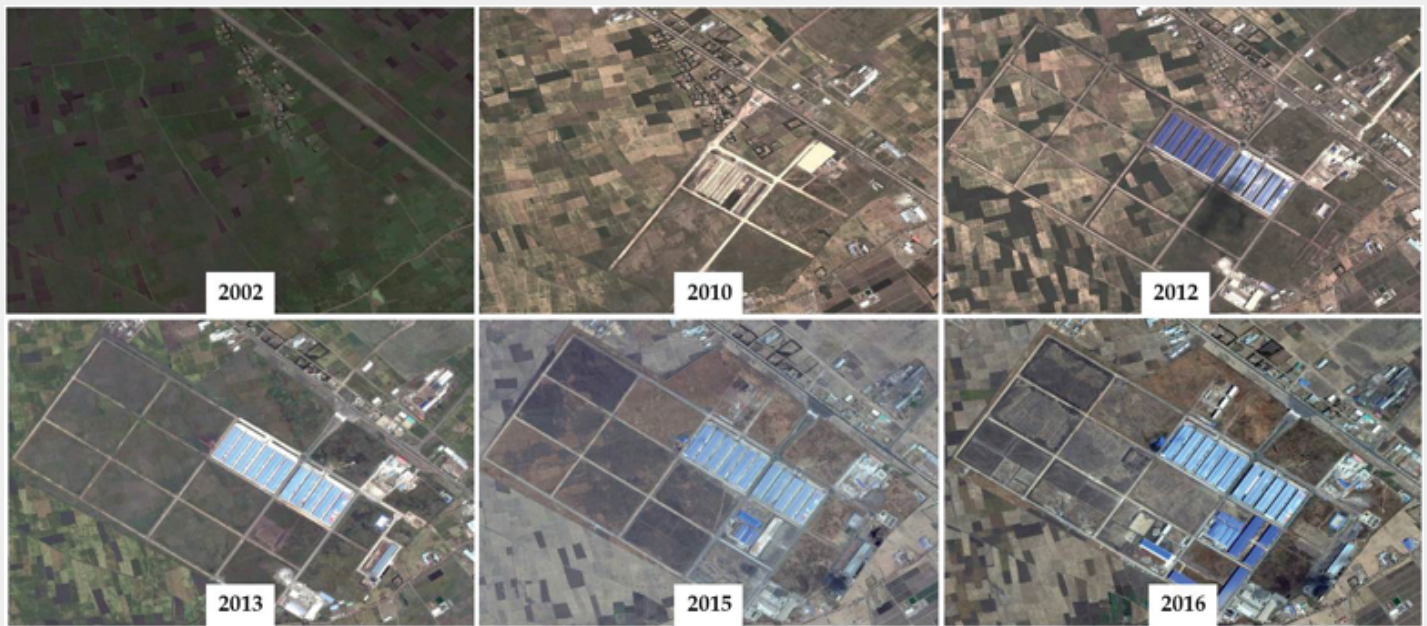
Year	Enclosed (ha)	Constructed (ha)
2010	60.48	12.04
2012	175.74	22.96
2013	175.74	29.60
2015	175.74	57.09
2016	175.74	63.99

Data source: Measured by the author based on time-series Google Earth satellite imagery

pre-investment assessment, property and expatriate insurance, training costs, and preferential loans to potential contractors and investors.<sup>58</sup> Jiangsu provincial government and its local Suzhou municipal government provide additional credit insurance, compensation on facility and service costs, as well as support to local labor service agencies for outsourcing workers abroad.<sup>59</sup>

As of 2016, the EIZ has attracted 64 enterprises, of which 31 are fully operational.<sup>60</sup> These enterprises engage in sectors including textiles, garments, footwear, construction materials, auto assembly/parts, and food processing. Initially most companies in the EIZ came from the southern and southeastern provinces of China, primarily the Jiangsu and Guangdong provinces. The EIZ later began to host manufacturers from other parts of China as well as from various other countries.

**Figure 1:** Imagery of EIZ land area between 2002 and 2016



Source: Individual images downloaded from Google Earth, figure created by author.

Resident Chinese companies in the EIZ have certain similarities in operational strategies. They are mostly small, private investments, engaging in the manufacturing sector. Overall, they recruit many more Ethiopians than Chinese expatriates, contributing a much higher workforce localization rate than Chinese SOEs in Ethiopia.<sup>61</sup> They are also relatively autonomous from their local head offices in Addis Ababa and Chinese headquarters in daily decision-making. Yet, their specific sectoral focuses lead to different arrangements for production relations and provisions of training opportunities, which warrant comparative analyses.

## METHODS

TO EXPLORE THE OPERATIONS OF EIZ-BASED COMPANIES and the experiences of local workers with regards to work, training, and skill development potentials, the author conducted two-months of field studies in the EIZ during the summer of 2016. Field research aimed to answer three questions: 1) How do on-the-job training practices vary across resident companies in different sectors? 2) How are job-based skill transfer received, and how does it contribute to future professional development from the perspectives of local workers? 3) What can be done to improve the efficacy of skills development in Chinese companies specifically, and in nation-wide SEZ programs in general?

The author had conducted pilot studies in the EIZ during the summers of 2013 and 2014, when she visited a number of factories in their start-up stage, and interviewed managers about their experiences of “relocating” businesses to Ethiopia. At that time, the author noted a sense of uncertainty and pessimism among new investors because local infrastructure facilities, bureaucratic efficiency, market potential, and financial situations were below their expectations. One textile investor, for example, struggled for months to get local work IDs for his Chinese expatriate technicians. The unfamiliar foreign environment, language barrier (some Chinese barely spoke English and no Amharic at all), and limited support from the EIZ management office and Ethiopian government agencies made their settlement in Ethiopia difficult.<sup>62</sup> In addition, while low labor cost was a major incentive for most Chinese investors, they found the lack of skilled labor to be a major challenge, and had to invest significant time and effort to train local workers.<sup>63</sup>

Despite early difficulties, the EIZ managed to grow and attract more investors from different parts of China and also around the world. In the summer of 2016, the author re-visited the EIZ to investigate the efficacy of skill transfer to local workers. Two primary field methods were adopted. First, field observations were made to investigate the work environment in the EIZ and in selected Chinese factories. The researcher resided within the zone for a week to observe its daily routine, production

**Figure 2:** Survey with EIZ workers



Source: Photo by the author

**Table 3:** Summary of surveyed companies

Employer	Sector & Sample Size	Focus	Company Name	Country	Year
EIZ Developer	Construction (9)	EIZ construction	STD Construction	China	2014
	Service (3)	Security and cleaning	Eastern Industrial Zone	China	2006
EIZ Resident Companies	Footwear (114)	Leather shoes	Huajian International Shoe City	China	2011
		Sport shoes, slippers, etc.	Huihuang Industry	China	2014
	Industrial Material (29)	Hot rolled ribbed bars	East Steel	China/ Ethiopia	2013
		Screws, nuts, etc	Ejia Metal Products	China	2014
		Steel pipes	LQY Steel Pipes	China	2011
		Cement	Zhongshun Cement	China	2008
	Textile (39)	Comforters and blankets	Yuye Chen Comfort	China	2010
		Arabian kufiyahs	Dongfang Spinning Printing and Dyeing	China	2013
		Bedding	HQ & ZA Manufacturing	China/ Ethiopia	2016
		Weaving and finishing	KEPA Textile	China	2014
		Jeans	Linde (Ethiopia) Garment	China	2014
		Adult suits	Yuechen Industry	China	2015
	Auto / Parts (10)	Spare auto parts	Shadeka Spareparts Manufacture	China	2013
		Auto assembly	Yangfan Motors	China	2013

Source: Data compiled by the author based on summer 2016 research

processes on the factory floor, as well as after-work social activities among Chinese expatriates. Key informant interviews with a number of Chinese factory managers, expatriates, and local technicians were conducted on topics of local recruitment, training, and management practices.

Second, an opinion survey was conducted with 204 local workers from Chinese companies in the EIZ (Table 3). These workers were primarily employed by two actors

within the EIZ: zone developers/operators (n = 12) and resident enterprises (n = 192). Workers employed by zone developers/operators engage in two types of work: 1) **construction** (i.e. building factory sheds and other infrastructure inside the EIZ); and 2) **services** (e.g. EIZ security and cleaners). Those employed by resident enterprises include workers from four sectors: 1) **footwear** (e.g. leather shoes); 2) **industrial materials** (e.g. cement, steel pipe, and metal); 3) **textiles** (e.g. spinning, weaving-fabric, knitting, finishing, and fabricating into garments, bedding products, etc.); and 4) **auto assembly/parts**.

During the survey, two Ethiopian master's students from Addis Ababa University (AAU) were hired as field assistants to facilitate in implementing the survey (e.g. recruiting potential participants, monitoring survey process, checking completed forms, etc.). Due to busy work schedules in the zone, the survey was conducted primarily during breaks, between shifts, or after work in the late afternoon (Figure 2). Each survey session was limited to five to eight participants so that the team could respond to any questions or concerns.

**Table 4:** Summary statistics of workers' demographic background

Demographic	Item	Sample Size
Gender	Female	62
	Male	142
Age	16-20	71
	21-24	100
	25-28	33
Marital Status	Single	161
	Married	43
Educational Attainment	Primary	19
	Secondary	70
	TVET	93
	College	3
	Unknown	19

## WORKING & LEARNING IN THE ZONE

### DEMOGRAPHIC BACKGROUNDS

THE SURVEY COVERED ABOUT 2.6 PERCENT OF THE TOTAL local workforce in the EIZ.<sup>64</sup> Among the 204 surveyed workers (Table 4), 142 are male and 62 are female. It was relatively difficult to recruit female participants for the survey as they preferred to go home right after work or appeared shy to talk to us. Some of the female workers we approached told us that they were illiterate or could not read the survey form. In those

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*Overall, there is not yet large-scale, systematic labor migration as the result of EIZ development, and it is mostly the immediate local population that predominantly benefits from EIZ-generated job opportunities.*

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cases, the two local assistants would read the survey to them and write down their responses.

The largest employer in the EIZ is Huajian International Shoe City, which started operations in 2012. Huajian employs about 4,600 locals and 160 Chinese expatriates. Yet, the actual number of employees working in the EIZ on a daily basis varies, depending on the volume of production demands. At the time of the survey, there were about 2,400 locals working in two workshops.<sup>65</sup> Other companies have much smaller numbers of local recruits: from less than a hundred (e.g. HQ, Yangfan), to about 500 (Linde, East Steel).<sup>66</sup>

The workers in the survey are all young adults between 16 and 28 years old and almost 80 percent of them are single. Among the 43 married workers, 31 (72 percent) are male. Ninety-six workers obtained post-secondary education, of which 93 attended Technical and Vocational Education and Training (TVET) schools and three attended college.<sup>67</sup> TVET schools in Ethiopia present an institutionally separate track from the formal education system. They emulate the German apprenticeship style, where students spend 70 percent of their time as interns.<sup>68</sup> Yangfan Motors, an auto assembler in the EIZ, has received several auto mechanical interns from local TVET schools over the years.<sup>69</sup>

During the survey, workers also reported their places of origin. The results show that 189 (93 percent) came from the Oromia region where the EIZ is located, particularly the nearby towns of Dukem (23) and Debra Zeit (100). Among the 81 workers from other parts of Oromia or other regions of the country, 58 are male and 38 have post-secondary degrees. Sixty-four of these 81 workers started working for their current company in or after 2014, implying that they are new migrants to this part of the country. Overall, there is not yet large-scale, systematic labor migration as the result of EIZ development, and it is mostly the immediate *local* population that predominantly benefits from EIZ-generated job opportunities.

## **WORK-LIFE SCHEDULES IN THE ZONE**

THE EIZ CONTRIBUTES TO THE LOCAL EMPLOYMENT of young adults who have recently entered the job market. For 80 percent of the surveyed workers (163), their current position is their first job. Thirty-four have worked in other Chinese companies for an average of 10.4 months, and 16 in other non-Chinese companies for an average of 10.2 months. Only nine workers have both worked in Chinese and non-Chinese companies before their current job. Workers have worked in their current companies for various lengths of time, with the longest working 80 months and shortest starting just one month before the survey. On average, they have worked 18.6 months for their respective companies.

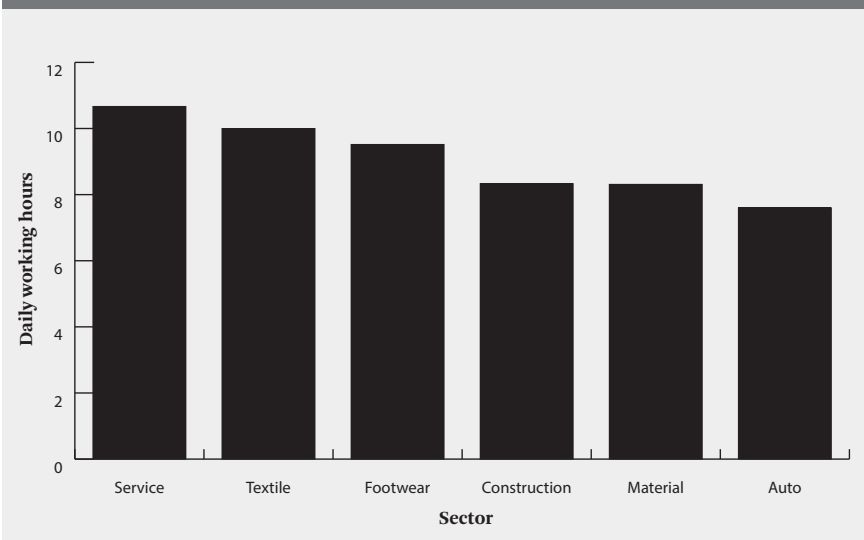
The recruitment process is straightforward for most companies. Companies typically post a job advertisement on a bulletin outside the industrial zone and interested candidates can visit the factory for an interview or screening. Recruitment happens on a rolling basis with no specific deadlines or collective interviews.



**Table 5:** Work schedule summary statistics

Demographic	Item	Sample Size
Weekly working days	5 days	14
	6 days	63
	7 days	127
Daily working hours	6-8 hours	136
	9-12 hours	54
	12-15 hours	14

**Figure 3:** Sectoral difference on daily working hours



Sometimes groups of local young adults will wander outside the zone and approach potential employers asking for jobs. For factories that recruit large amounts of local workers (such as Huajian and Linde), they work directly with the local labor office and police station on labor recruitment.

With an increasing number of enterprises starting operations, the EIZ is busy throughout the week. Employees work five to seven days a week and six to fifteen hours per day (Table 5). Variations in work schedules reflect sectoral differences (Figure 3). Service sector personnel work the longest hours per day for an average of 10.6 hours, followed by textile workers for 10.1 hours, and footwear workers for 9.5 hours. Textile and footwear companies operate one to three shifts a day, seven days a week. For example, KEPA Textile employs about 100 local workers divided between two day shifts: one between 7:00 am and 6:30 pm and the other between 7:00 pm and 6:30 am. The company has four Chinese expatriate technicians, two working the night shift and two working the day shift. The technicians switch shifts after every week.

Workers in construction and industrial materials work about eight hours per day. Auto assembly/parts companies have the shortest work time with an average of 7.6 hours. Particularly for workers in Yangfan

Motors, they assemble knocked-down parts imported from China. While the assembly line has a capacity of 3,000 cars per year, the size of potential markets and occasional delays in shipments or customs have limited their production to around 800 cars. During the survey, there were about two weeks when workers were largely idle while waiting for new knock-down parts from China to clear customs.

Market demands and contract deadlines play a major role, affecting work schedules in footwear, textiles, and industrial materials manufacturing. Huajian, while formally employing 4,600 locals, utilized only 2,400 workers during this survey. During “slack” production seasons, the company will adjust working hours and shifts accordingly. Each worker, in those occasions, may have two days off in a week.

**Table 6:** Lunch and transportation summary statistics

Statistic	Detail	Sample Size
Lunch	Bring Lunch	35
	Eat Out	19
	Provided	142
	Unknown	8
Transportation	Minibus	80
	Shuttle	94
	Walk	25
	Other	5

Beyond working schedules, companies also vary in terms of the provision of shuttle service or lunches to local workers (Table 6). Companies like Huajian and East Steel, for example, offer lunch to workers, primarily due to the large number of workers employed by the factory. Special lunch is provided for workers during religious holidays. While some companies believe that keeping workers inside the factory for lunch is more efficient and easy to manage, others decide not to do so for fear of issues with food sanitation and high logistical costs.

Companies with large numbers of workers also tend to provide shuttle services. Shuttle buses will usually wait outside of the EIZ gate. There are also local minibuses waiting to transport workers after 5:30 pm each day (Figure 4). Yangfan, while only employing 60-80 workers, also provides shuttle services because some of its workers used to work in the company's service station in Addis Ababa and live close to the capital. It would cost too much time to commute by public transportation. Overall, commute times range from two minutes to 90 minutes among surveyed workers, the average being 28 minutes. With the boom

of the EIZ, there are also scattered shed houses available for rent near the zone. Among participants, 13 percent (25) reported walking home each day.

**Figure 4:** After work at EIZ

Source: Photo by the author

## PERCEPTIONS OF WORK: INCENTIVES, CHALLENGES, AND TRAINING

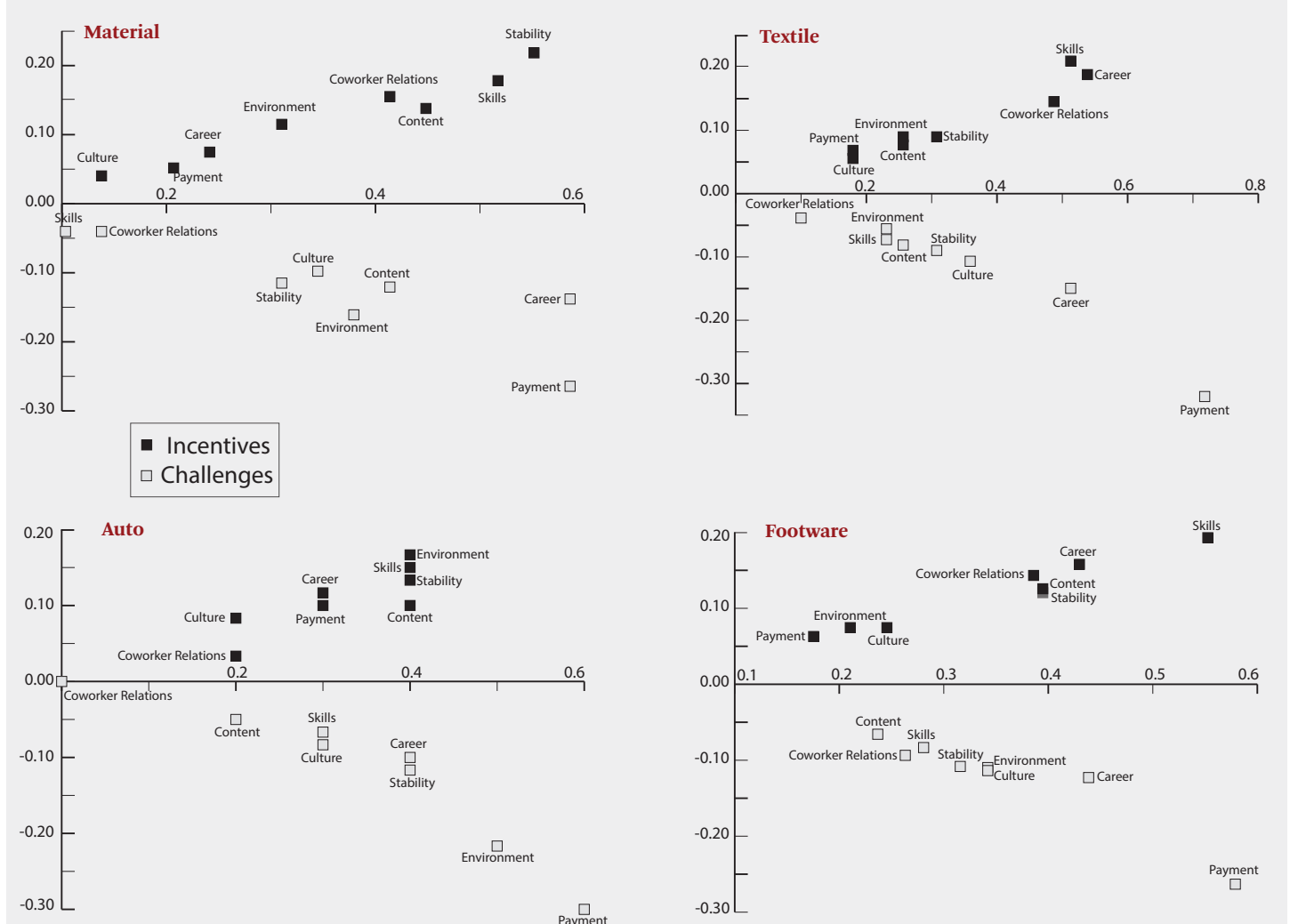
DURING THE SURVEY, WORKERS were asked to identify and rank three major incentives and challenges of their work in Chinese companies. Results were then converted to numeric ranks and mapped out onto two axes. The horizontal axis reveals the total number of times (i.e. incidence) that one particular incentive/challenge was mentioned by workers in a particular sector. The vertical axis shows the level of significance (i.e. ranks) of the factor. The results show both similarities and differences in workers' perspectives across the footwear, industrial material, auto/parts, and textile sectors (Figure 5).

Overall, skills development was identified as a key work incentive, especially among those in the

footwear and textile sectors. Workers in those two sectors also valued career development and coworker relations in their companies. Workers in industrial material production put job stability as their top incentive. The boom in infrastructure

development in Ethiopia dramatically increased the consumption of building materials across the country. The simultaneous success of Chinese companies in securing construction contracts or sub-contracts attracted Chinese building material manufacturers to invest in Ethiopia. Companies like East Steel and Zhongshun Cement enjoyed relatively large shares in the domestic market, particularly through Chinese clients. Working in this sector was therefore considered a stable job compared

Figure 5 : Worker-perceived employment opportunities and challenges



to, for example, construction. Workers in auto parts (particularly female workers from Shadeka) chose work environment as their top incentive. Shadeka employs a larger number of men than women and pursues a gender-based division of labor in production: male employees operate machinery and female employees work in small groups to manufacture auto parts like air filters.

As for worker-perceived challenges, low payment was identified as the top challenge across all sectors. Workers received monthly wages between 1200 birr (\$53)

and 2200 birr (\$97)<sup>b</sup>, with the average pay slightly lower in textile companies and higher in auto and industrial materials companies. For most companies, local translators who spoke Chinese, English, and one or more of the local languages earned the highest salary. Such workers' salaries could exceed 10,000 birr (\$443). While Ethiopia does not enforce a national minimum wage, compensation offered by the companies is in fact higher than the national average of \$49 per month.<sup>70</sup> Nonetheless, workers do not consider the income to be sufficient when considering their household expenses and number of unemployed family members who are dependent on their income. For the 181 workers living in rental rooms, their rent averaged 538 birr (\$24) per month, accounting for about a quarter of their income.

Workers surveyed in the footwear and textile sectors cited career development as both an incentive and a challenge. While they believed that work experience in current

positions would expand their career choices in the future, they also thought there was little room for promotion within their current company. Huajian, for example, selected 60 locals in its early years to be trained in their factory in China. While some left the company after training, the remaining workers returned to Ethiopia as translators or local managers. Nonetheless, this opportunity was only for a select group of locals and not offered on a regular basis.

A similar pattern was found in other companies where Chinese expatriates worked as managers, senior technicians, accountants, or quality inspectors. While a few locals were promoted as foremen, they were mostly

considered subordinates to Chinese expatriates, and very few could participate in management or decision-making within their companies. Chinese managers expressed their willingness to promote locals, but said they were unable to do so given the limited availability of qualified and skilled candidates.

The survey also included a set of statements about work intensity, coworker collaboration, management, and training that the workers would evaluate based on

**Table 7:** Working experiences evaluation (0-5 scale)

Statement	Average
The Chinese are competent in their professional skills.	3.9
You work closely with Ethiopian colleagues in the company.	3.6
Your professional skills improved after working in the company.	3.6
Your daily communication with Chinese colleagues is effective.	3.5
On-the-job training in the company is helpful to improve your skills.	3.4
Your work time and schedule are acceptable in the company.	3.3
You work closely with Chinese colleagues in the company.	3.3
The work process is well-managed in the Chinese company.	3.1
The Chinese company often provides on-the-job training to you.	2.8
You often socialize with Chinese colleagues beyond working hours.	1.8

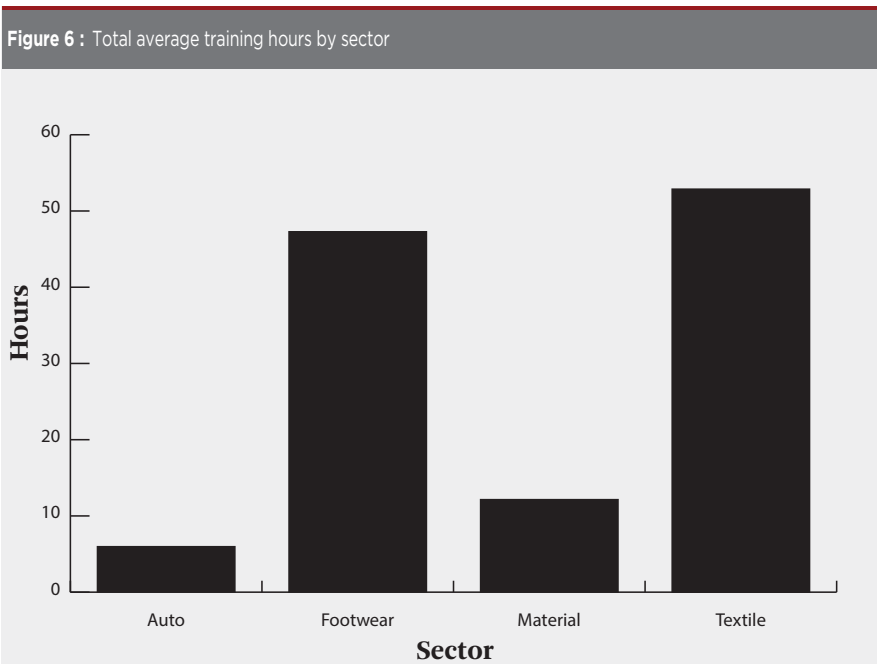
\*Based on a scale of 0-5, with zero being completely disagree and 5 being completely agree.

<sup>b</sup> 1 USD = 22.59 Ethiopian Birr

their level of agreement on a scale of 0-5 (Table 7). The surveyed workers generally agreed that the work schedule was acceptable and the Chinese were competent in professional skills. A slightly higher rating was given to the level of collaboration between Ethiopian coworkers than to collaboration with Chinese expatriates, however. Management and social interaction were rated lower than other statements, with social interaction rated the lowest. One textile company manager revealed to the author that the company intentionally limits communication with locals, and restricts conversations to only “work stuff”. He believed that it was a good way to ensure efficiency and avoid potential conflicts.

In terms of training, while workers tended to agree that training was helpful and the work experience contributed to their skills development, they were not satisfied with the on-the-job training offered by their companies (2.8/5.0). Among 192 workers in the four major sectors, 118 (61 percent) reported having received training from their companies. On average, they were trained for nine days for 7.6 hours per day when they first started work.

Variations in training provisions also exist between sectors (Figure 8). For workers in the motor parts sector, training was almost non-existent since the companies recruited locals through TVET schools who already had relevant background in automotive or mechanical engineering. Most workers in the industrial material and textiles sectors also reported fewer total training hours, yet variations existed among



workers and companies. For example, among specific companies Linde Garment provided the longest training length—an average of 20 days—to new workers. Their products were mostly exported to European markets, which implied higher quality standards compared to companies who sold in local markets. Workers in the footwear

sector also received long overall training, which could also be explained by the quality requirements of their products to be sold to European or US clients.

Other than skills training, companies also pursued other measures to boost workers' morale and discipline. Some companies put up red banners inside factories with lofty slogans, such as "building harmonious enterprise" and "pure gold fears no fire", in Chinese, English, or Amharic. Huajian, in particular, engaged all workers in physical training three times every day, during which time workers marched and jogged around the factory campus and listened to encouragement from local managers. This was promoted as part of the company culture as the owner of the company was a veteran in China.

## CONCLUSION

WITHIN THE BROADER CONTEXT OF RAPIDLY EXPANDING Africa-China cooperation, this working paper investigates one particular area of increasing trans-regional development exchange. SEZs, considered a major contributor to China's economic growth, have been increasingly adopted by African countries to drive national industrial transformation. In countries like Ethiopia where SEZs are relatively new, Chinese OTECZ has presented a "model" to be emulated by other government-led zones across the country. Despite initial difficulties experienced by Chinese zone developers and manufacturers, the EIZ has more recently managed to grow and attract Chinese and foreign businesses under pro-investment policies in Ethiopia, and financial support from multiple levels of Chinese government (national, provincial, and municipal).

While various studies and reports have acknowledged the contribution of the EIZ in boosting local employment, less is known about the individual workers who make a living by working in the zone. This paper presents two-months of field research on workers' experiences and perceptions, with particular attention to the efficacy of training and skills development in EIZ resident companies. A number of conclusions can be derived from the study. First, the EIZ and its resident companies have relied upon the local workforce for daily production. While companies employ varying numbers of Chinese expatriates, the number is much smaller compared to local recruits.

Second, both similarities and differences exist in terms of recruitment processes, work schedules, management practices, and training provisions between companies and across sectors. Overall, manufacturers are demand-oriented and will adjust their work schedules (e.g. work days/hours, number of shifts, vocations) accordingly. Nature of industry, scale of recruitment, and market conditions played important roles in the organization of daily production and workforce management.

Third, such inter-firm and inter-sectoral similarities and differences are also evident in worker-perceived incentives, challenges, and training opportunities. Local workers value the learning opportunities in Chinese companies, and agree that their employment is contributing to skills development. However, workers are not satisfied

with the level of training provided. At the same time, the salaries offered by companies, while higher than the national average, are not considered sufficient to cover household expenses, particularly with increasing rent in the neighborhoods surrounding the EIZ.

Fourth, companies engaged in export-oriented production tend to invest more time in training than those who cater to the local market. This is primarily due to the high-quality standards required by European or US clients. Local government agencies, who occasionally intervened in cases of conflict in the workplace, have not yet taken proactive measures to participate in workforce training. Skill transfer, despite being frequently mentioned as a key benefit of SEZ-based development in official proclamations, has not been realized through concrete policy. In addition, only one of the surveyed companies has hosted interns from the local TVET school showing there has yet to emerge active linkages between companies and local professional institutions.

## POLICY IMPLICATIONS

GIVEN THE ABOVE FINDINGS, THIS PAPER PROPOSES THE FOLLOWING four policy recommendations to improve the efficacy of skills development among local workers:

1. Specific requirements (i.e. type, length, and content) of training should be included in government investment policies and industrial park regulations. Preferential service facilitation, such as expedited one-stop service for work registration or customs clearance, should be given to companies that comply with government training requirements.
2. Zone developers should take a more active role in organizing SEZ-wide training on topics of work safety, security, and time management. Training should be formally included in performance evaluations of zone developers by the Chinese and Ethiopian governments.
3. Companies, particularly during low production seasons, should invest more time in training local workers. Improved skills can greatly contribute to companies' productivity and the quality and competitiveness of their products. Training should be organized around topics such as Chinese language learning, technical skills, and company culture, which not only give workers the opportunity to improve their skillset, but also increase their sense of belonging within their companies.
4. Key government agencies should be identified as intermediaries to facilitate collaboration between local TVET schools and SEZ resident companies. Similarly, professional staffing companies, supported by government funding, should build a database of local workers (and TVET school graduates), organize workforce training, and provide targeted recruitment services to SEZ companies. ★

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Ding Fei is a development and economic geographer interested in the relationship among state, capital, and human agency in the uneven process of globalization, and its implications on industrial transformation and local capacity building in the “Global South.” Her empirical research examines the variegated construction of local work regimes by globalized Chinese state and private capitals in Ethiopia. Ding earned her doctorate from the University of Minnesota and currently works as a post-doctoral research associate and lecturer at Arizona State University

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