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**An Overview of Chinese Agricultural and
Rural Engagement in Ethiopia**

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ABSTRACT

The recent expansion of Chinese economic engagement in Africa is often poorly documented and not well understood. This paper is the first in an International Food Policy Research Institute-sponsored effort to better understand Chinese engagement in Africa's agricultural sector. A clearer picture of Chinese activities in agriculture is important as a foundation for Africans and their development partners to more fruitfully engage with an increasingly important actor. This overview paper explores China's engagement in rural Ethiopia in historical perspective, focusing on foreign aid, other official engagements, and investment by Chinese firms between 1970 and 2011. We find that Chinese engagement in agriculture and rural development in Ethiopia is longstanding, but at present, Chinese farming investment is far smaller than generally believed. Changes in this engagement reflect the changes in China's engagement in Africa more generally.

Keywords: China and Africa, China and Ethiopia, agribusiness, foreign aid, agriculture

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1. INTRODUCTION

China has been engaged in agriculture and rural development in Ethiopia since official diplomatic relations began in 1970. As of late 2011, the Chinese government was sponsoring programs of cooperation in agricultural vocational training and South–South Cooperation (the latter co-financed by the Food and Agriculture Organization), building a standard agro-technology demonstration center, and supplying senior Chinese agricultural experts to provide technical assistance. Chinese banks regard Ethiopia as an excellent credit risk and have provided finance to rural electricity distribution systems, rural telecoms, and rural power generation. Private Chinese firms have explored large-scale agricultural investments in Ethiopia, but none have yet begun to be implemented.

Researchers from the International Food Policy Research Institute (IFPRI) visited Ethiopia (Addis Ababa, Sululta, Dukem, Alage, and Ginchi) between November 5 and 20, 2011, to conduct a scoping study of Chinese engagement in agriculture and rural development. The researchers conducted over 30 interviews, primarily with Chinese and Ethiopian officials and businesses, and with several knowledgeable foreign experts. We also obtained census data on all approvals of specific Chinese foreign investment activities in agriculture and agribusiness from the national investment authorities to locate Chinese investors. The report also draws on earlier visits by IFPRI researchers to Ethiopia as well as published and unpublished documents and secondary material.¹

China and Africa: Frameworks for Engagement in Agriculture

China’s success in feeding a fifth of the world’s population with only eight percent of its arable land is well known. Thousands of years of intensification of farming in much of the country have led to very high yields per hectare (ha) of land. China’s hybrid rice pioneer Yuan Longping, for example, has just produced a variety that yield 13.9 metric tons/hectare (mt/ha) under trial conditions. Labor-intensive cultivation practices such as the transplantation of irrigated paddy rice are common. Yet China also has arid grasslands and pastoral communities that bear some resemblance to the rural areas of Ethiopia.

China’s policy on engagement in agriculture in Africa can be seen in its January 2006 Africa Policy White Paper and in the action plans resulting from several rounds of high-level meetings under the Forum on China–Africa Cooperation (FOCAC) (*People’s Daily Online 2006*). The 2006 Africa Policy White Paper commented that:

Focus will be laid on the cooperation in land development, agricultural plantation, breeding technologies, food security, agricultural machinery, and the processing of agricultural and side-line products. China will intensify cooperation in agricultural technology, organize training courses of practical agricultural technologies, carry out experimental and demonstrative agricultural technology projects in Africa, and speed up the formulation of China–Africa Agricultural Cooperation Program. (*People’s Daily Online 2006*)

Two recent action plans following ministerial-level meetings of the Forum on China–Africa Cooperation have emphasized agricultural cooperation. (As with other summits, action plans are developed beforehand by working groups.) During the 2006 Beijing Summit of the Forum on China–Africa Cooperation, the two sides—China and African governments—pledged to “intensify their exchanges and cooperation in farming, animal husbandry, irrigation, fishery, agricultural machinery, processing of agricultural produce, sanitary and phytosanitary measures, food safety, and epidemic control” (Forum on China–Africa Cooperation 2012). In 2009, China pledged to enhance cooperation in “agricultural infrastructure, grain production, breeding industry, exchanges and transfer of practical agricultural technologies, and in processing, storage, and transportation of agricultural products” (Forum on China–Africa Cooperation 2009).

¹These earlier visits were not under IFPRI’s auspices. Brautigam visited Ethiopia in February 2011 and Xiaoyang in 2009.

China's agricultural engagement in Africa involves trade, investment, foreign aid, and government-sponsored bilateral cooperation based on mutual benefit (Brautigam and Tang 2009). The Ministry of Commerce (MOFCOM) is a central actor. China's foreign aid program is run out of MOFCOM's Department of Foreign Aid. Investment and some areas of cooperation are promoted by MOFCOM's Department for Outward Investment and Economic Cooperation. For agricultural aid, MOFCOM coordinates with the International Economic Cooperation Center of the Ministry of Agriculture and sometimes the equivalent department in the Ministry of Science and Technology.

In the 1960s and 1970s, China's agricultural aid in Africa emphasized large state farms. This changed in the 1980s, when small-scale projects in support of smallholder farmers were favored (Brautigam 1998). Recent agriculturally relevant foreign aid includes the dispatch of 100 senior agricultural experts to Africa for a year of technical assistance (most countries received two or three experts), short-term training in China, and the establishment of twenty agro-technology demonstration centers across the continent. In addition to these standard programs, some African countries have received other agricultural assistance: vocational training, South-South Cooperation with the Food and Agricultural Organization (FAO), rural roads, and so on.

Together with the Ministry of Agriculture, MOFCOM originally conceived its grant-financed agro-technology demonstration centers as an experiment. Chinese companies and institutes, selected via a competitive tender system in China, would build the centers, and the Chinese aid budget would pay for equipment and Chinese personnel to help run the centers for three years. During that time, the Chinese companies and institutes would seek out income-generation activities that would enable the centers to fund their own revenue streams. They would also use their time at the center as a platform to seek other commercial opportunities in the country. This experimental approach is an example of foreign aid coupled with mutually beneficial cooperation. It is based on a "responsibility system" that has been widely practiced in many of China's own domestic government centers and agencies.

Other Chinese engagements in agriculture involve China Development Bank (CDB) and China Export-Import Bank (Eximbank), both of which provide commercial development finance and export credits; China Eximbank also provides concessional foreign aid loans. China Development Bank is the parent organization of the China-Africa Development (CAD) Fund. CAD Fund has signed a strategic agreement with China State Farm Agribusiness Corporation (CSFAC) to set up a joint company to make agricultural investments. In Africa, this has not yet resulted in much beyond the transfer of some of CSFAC's existing investments (mainly, but not only, former aid projects) to the new joint venture. China also has provided zero-tariff entry for a large number of agricultural commodities and processed goods (cotton yarn, sisal fiber, finished leather, and so on) from Africa's low-income countries.

China's strategy for agricultural engagement abroad has a long-term perspective. They believe that aid, investment, and other forms of cooperation should be used to increase food and agricultural output globally. They are fully aware of the sensitivities of large-scale agricultural investment in Africa, and although Chinese companies have investigated a number of potential projects, generating many media stories, there do not yet appear to be any documented cases of Chinese companies actually implementing investments in agricultural operations above 10,000 ha.²

² This could always change. For commentary and links to research on this topic, see Brautigam's blog: chinafricarealstory.com and search on "land grabs."

2. ETHIOPIAN AGRICULTURAL STRATEGY

According to Ethiopia's second five-year plan—the Growth and Transformation Plan (GTP), which ends in 2015—policies for agriculture and rural development will focus on scaling up productivity, diversifying strategies in different ecological zones, and strengthening marketing system (MoFED 2010). The efficient adoption of modern agricultural technologies by smallholder farmers/pastoralists is highlighted as the key method to increase productivity. Aiming to scale up the best practices learned during previous years, the extension system will be enhanced and development agents will acquire better training. Smallholders are encouraged to move from the production of primary goods to more value-added products. Ecologically sensitive development of natural resources and small-scale irrigation schemes are also considered as important means to raise productivity (MoFED 2010, 20-22).

Smallholder agriculture will remain as the governments' top priority, however, private investment is explicitly welcomed in agriculture (MoARD 2010, 13). Both government and enterprises have been constructing infrastructure to expand and improve communications, transport, product storage, and so on. The government hopes to establish a transparent, efficient, and effective agricultural marketing system that involves farmers' cooperatives and private, modern output market centers. Private investment will be directed to expand subsectors such as horticulture for employment generation and export and improve key value chains such as leather. During the five-year period, the government expects to identify, prepare, and transfer over 3 million ha of land to investors to establish large-scale commercial farms (MoFED 2010, 19, 24-26). Ethiopia has also resurrected a controversial village resettlement program. Both the effort to establish large, commercial farms and the resettlement program have come under critical international scrutiny (Oakland Institute 2011 and Human Rights Watch 2012).

3. HISTORICAL BACKGROUND: 1970-1997

China and Ethiopia established diplomatic relations only on December 1, 1970. Chinese assistance to rural Ethiopia was rather limited in this early period but shows a characteristically broad range of activities ranging from rural roads, veterinary research and training, crafts, irrigation, and rural electrification.

Veterinary Research and Demonstration Team (1974–1977)

Between 1974 and 1977, a Chinese veterinary science team conducted pharmaceutical research and laboratory training in Bahir Dar, about 565 kilometers (km) from Addis Ababa. The team conducted experiments with herbs and minerals and developed 22 different livestock medicines, mainly from local ingredients. Their research papers reported on treatment of 33,384 animals, 70 percent of which were treated with Ethiopian herbal medicines. After two years of experiments, the team set up a small pharmaceutical plant to produce local herbal medicines for animal treatment. In 1977, they tried to transfer this technology by providing a year of focused training for 17 Ethiopian laboratory technicians (Bartke 1989, 63). Two Ethiopian researchers reported in a 1994 paper that “unfortunately this work was discontinued when the Chinese team left the country” (Mesfin and Obsa 1994).

Bamboo Weaving Training Class (1974–1976)

Chinese experts held bamboo weaving training classes for Ethiopian students. Fourteen students learned how to weave practical bamboo articles, including injera containers and suitcases (Bartke 1989, 63).

Woreta-Weldiya Road (1975–1982)

The 293 km northeastern Ethiopian road between Woreta and Weldiya across the Rift Valley was among the first infrastructure projects financed by Chinese aid after establishing diplomatic relations in 1970. The road was financed by a zero-interest loan and links three agricultural regions in northern Ethiopia. Surveying began in 1972, with construction between 1975 and 1982. Each Chinese technician in the equipment repair shop was tasked with training one or two Ethiopian workers (Bartke 1989, 63).

Water Supply Projects (1972–1982)

China’s aid financed the drilling of at least 27 wells in at least 23 small- and medium-sized rural towns in Ethiopia, including Ginchi and Sendafa. This project provided drinking water for more than 250,000 people (Bartke 1989, 63). The well-drilling project apparently continued until at least 1991. A sample of seven Chinese water systems in a 2008 survey of wells in Mirab Abaya *woreda* found that two of the earlier Chinese water systems had been abandoned and two were suffering from technical problems or water turbidity or both (Deneke and Hawassa 2008).³ The remaining three systems, including one setup in 1979, were still serving a total of 1700 people.

Power Stations (1972–1978)

A rural electrification project financed by an interest-free loan of US\$3.2 million⁴ built diesel power plants and distribution lines in from six to eight provincial towns in Ethiopia (Metu, Adigrat, Bonga, Woldia, Bati, Debarq, Gelemso, and Fitcha) (Bartke 1989, 63). Most of the stations appear to have had an installed capacity of 270 kilowatt (kw). A Chinese team attached to the Ministry of Agriculture in the late

³ The seven systems in this study (Deneke and Hawassa 2008) were built between 1978 and 1991.

⁴All dollars are US dollars.

1980s did a study of the feasibility of small-scale (less than 5 megawatt [mw]) hydropower in Gojam Region (Federal Democratic Republic of Ethiopia 2002, 19, 84).

Hare River Irrigation Scheme (1984–1996)

The 1365 ha Hare River irrigation scheme was located about 400 km south of Addis Ababa in the Southern Nations, Nationalities, and Peoples Region (SNNPR), Gamo Gofa Zone. The Hare River drains into Lake Abaya. Originally, the contract was signed with China National Complete Plant Import and Export Corporation in 1984, but difficulties with acquiring land led to delays. The project was finally finished by Jiangxi Corporation for International Economic and Technical Cooperation between July 1994 and February 1996, although there was apparently some dispute between the contractors and the Ethiopian Ministry of Agriculture over the Chinese design (Girma and Awulachew 2007).⁵ It was financed by the Chinese government with a zero-interest loan of RMB 25.38 million (about \$3.06 million at rate 1:8.3) (CIETC). The project built a dam and drainage system. Current performance is mixed, with some problems with adequate irrigation in some areas. However, cropping patterns in the area have changed significantly with the introduction of irrigation, with Asmara banana, followed by avocado and mango, becoming the most important cash crops (Christine et al. 2008).

Food and Material Aid (Various Years)

China has contributed food aid on several occasions. During Ethiopia's drought in 1984 and 1985, China donated at least 25,000 metric tons (mt) of maize. Other contributions during this period include 1,000 blankets for refugees and 20 mt of the insecticide diazinon to combat locusts in 1986 (Bartke 1989, 63).⁶

⁵ "A concrete weir constructed by the Chinese, which is located at the middle of the foot of the mountainous escarpment and the irrigation lowland field, is employed to supply irrigation water to this scheme. The weir is 6 m high, 9 m deep, and 137 m wide (figure 39). The intake from the weir has a capacity of discharging a maximum of 2.4 m³/sec. Irrigation water is conveyed to the irrigation fields using rectangular and trapezoidal canals. The turnouts, division boxes, road crossings, drops, and the cross regulators are all well constructed with masonry and concrete" (Girma and Awulachew 2007).

⁶ Original source: Xinhua, September 24, 1985 cited in Bartke, Wolfgang, *The Economic Aid of the PR China to Developing and Socialist Countries*, New York 1989. p. 63.

4. CHINA'S OFFICIAL AGRICULTURAL AND RURAL AID PROJECTS, 1998-2011

China's agricultural aid program in Ethiopia has remained fairly modest, but the number of programs has increased in the past decade. These include Chinese contributions to the FAO's South-South Cooperation Program, a zero-interest loan for machinery for a rural cotton textile plant, youth volunteers, agricultural training in Ethiopia and in China, and the construction of three rural schools, as well as a large agro-technology demonstration center outside of the town of Ginchi. Although it is not directly funded out of China's aid program, the cooperation between China and Ethiopia in agricultural technical vocational training and education is also discussed in this section.

South-South Cooperation Program (1998-2006)

In 1996, China joined the Food and Agriculture Organization's (FAO's) "South-South Cooperation Program." Under this program, China has sent more than 700 Chinese agricultural experts and technicians to seven African countries (Li, 2011).⁷ Ethiopia was one of the earliest participants in the program, with Chinese technicians arriving in 1998 to work in the area of small-scale irrigation, at Ethiopia's request, as part of a larger Special Programme for Food Security (SPFS) targeting areas of Tigray and Amhara. The program hit some snags when, shortly after the experts were deployed to Tigray and Amhara Regions, war broke out with Eritrea, causing the Chinese to be evacuated. Another problem occurred when the Chinese experts in Amhara differed with their regional counterpart agency on their scope of work (FAO 2006).⁸

Ultimately, six Chinese experts and one interpreter served from December 2000 to December 2002 and another seven experts and two interpreters served from October 2003 to July 2005 (FAO 2006, 25).⁹ The work began in Amhara Region in 2000 and in Tigray in 2003. The FAO program budget was \$2.027 million, with the Ethiopians contributing a further \$195,886. FAO, China, and the government of Ethiopia shared the cost of the salaries of the Chinese participants. According to the terminal report prepared by the FAO, the teams developed no actual irrigation systems, but merely developed detailed proposals and designs for a number of irrigation schemes. Yet the Chinese appear to have also been involved in demonstrations. According to an FAO official, the Chinese were seen as delivering practical assistance: "In Amhara, the rice they introduced was greatly accepted by the community because the Chinese were right down there with them" (Pers. comm. 2011).¹⁰ The designs produced by the Chinese teams for the upper Mille River were later implemented by the Amhara Development Association (at a cost of 26 million birr), although those prepared for Tigray appear not to have been implemented (FAO 2010,10).

In 2009, China set up its first trust fund with the FAO, donating \$30 million to support agricultural improvements in developing countries. Part of this will finance China's participation in expanded South-South Cooperation. A new \$1.5 million, two-year, South-South Cooperation Program is currently being finalized between China, Ethiopia, and the FAO and should start early in 2012. According to the FAO, the new program will be integrated in and complementary to Ethiopia's Agricultural Growth Program and focused on the high-productivity areas in Oromia, Amhara, and Tigray. Two Chinese experts were in Ethiopia in March and April to do an initial survey of the project areas.

⁷ The South-South Cooperation program involved a number of emerging developing countries as cooperating countries and less developed countries as hosts.

⁸ Apparently, the disagreement centered on the definition of irrigation schemes as "small scale" or "medium scale."

⁹ The first set of experts was qualified in agricultural economics, agronomy, fisheries, farm implements, irrigation engineering, and hydrology. The second set had expertise in soil and plant nutrition, water conservation, agricultural economics, livestock, soil and water conservation, and soil surveying (FAO, "Special Programme," p. 25). A Chinese report on the South-South Cooperation states that the agricultural specialists sent to Ethiopia under the South-South Program established demonstration plots.

¹⁰ Interview, Assistant FAO Representative, Addis Ababa, November 14, 2011.

Awassa Textile Plant Equipment Upgrade (2001)

China provided a zero-interest loan (variously described as \$1 to \$2.3 million) for equipment upgrading at a cotton textile plant in rural Awassa that was managed for five years by Chinese managers under a commercial contract arrangement.

Agricultural Technical and Vocational Training (Since 2001)

The Ethiopian agricultural technical and vocational education and training (TVET) system was reformed in 2001, when 25 agricultural TVET schools were established, in part with advice from Chinese experts. Each year since 2001, Ethiopia has selected around 20 agricultural professors from China to teach in Ethiopia's rural agricultural TVET schools. Now, in its 10th year, this program was the brainchild of a former Ethiopian Minister of Agriculture, Dr. Mulatu Teshome, who received his BA, MA, and PhD at Peking University in China (Pers. comm. 2011).¹¹ At present, the policy is for the TVET schools to contain 30 percent theory and 70 percent practice, but the reality is that they are 70 percent theory and only 30 percent practice.¹² This is why the Chinese instructors play an important role.

More than 200 Chinese teachers have served in this program, and about half have stayed more than a year. Out of 25 agricultural schools, Chinese teachers have taught in 14. Although university professors are required to be at the associate professor level and to have at least eight years of experience, they are particularly valued for their ability to teach practical skills. The Ethiopian Ministry of Agriculture selects the candidates from applicants organized by the Ministry of Agriculture in Beijing. Ethiopia pays the salary, housing, and airfare for the teachers, who are required to stay for one year at the location where the Ethiopian government assigns them. Some renew their contracts. The Chinese side has no cost, although sometimes the schools that have sent the teachers continue to pay their Chinese salary, as a sabbatical. The Chinese embassy also makes small donations of material support from the foreign aid budget to this program every year.¹³ Ethiopians at the Ministry of Agriculture were enthusiastic about the program, "despite the language barriers."¹⁴ Each Chinese instructor is assigned five Ethiopian instructors to "share experience." They are evaluated every year.¹⁵

Alage Vocational College, 217 km from Addis Ababa, currently has five Chinese instructors.¹⁶ In 2006 and 2008, the Chinese donated a complete diagnostic and treatment laboratory for animals to Alage Vocational College, worth RMB 10 million (US\$ 1.2 million) (China, Ministry of Agriculture 2008). In addition to the animal section, which, with the laboratories, is now considered the finest in Ethiopia, the college has an entire sericulture teaching system in place, from mulberry trees to spinning and weaving machines (the machines were a donation from an Indian company; however, the dean of Alage College said that he envisions having Chinese teachers teach practical agro-industrial skills in areas like this). At present the college is using the machines and raising silkworms, although this is not envisioned as an income-generation activity. The Chinese teachers also plan to introduce aquaculture (fish-cage technique) on the irrigation reservoirs. The students being trained in the college are now expected to become agricultural investors themselves, to build small-scale farms, export, or own small businesses. The college aims to demonstrate a number of income-generation activities.

¹¹Interview, team leader of Chinese agricultural experts attached to Ethiopia's TVET Program, Addis Ababa, November 15, 2011.

¹² Interview, Official, Ethiopian Agricultural Transformation Agency, November 16, 2011.

¹³Interview, Cultural counselor, Chinese Embassy, Addis Ababa, November 14, 2011.

¹⁴ Interview, Director, Planning and Programming Directorate, Ministry of Agriculture, Addis Ababa, November 15, 2011.

¹⁵ Interview, TVET Program Director, Ministry of Agriculture, Addis Ababa, November 15, 2011.

¹⁶Anonymous interviews, Alage Vocational College, November 18-19, 2011.

Youth Volunteer Program (2005–2010)

China has sent several rounds of youth volunteers to Ethiopia, the first African country to receive volunteers under the Youth Volunteer Program organized by the Ministry of Commerce, the Central Committee of the Chinese Communist Youth League, and the Chinese Youth Volunteers Association (CYVA). The first round in 2005 sent 12 youth volunteers for six months. Some were located in rural areas, working on biogas and crop improvement. As a reporter for the Christian Science Monitor described it:

Across the border from South Sudan, in the small Ethiopian village of Asossa, Sun Yingtao, a young agriculture student from Hebei Province in China, is teaching subsistence farmers—many of them refugees from war-torn Sudan—techniques for getting good yields out of their meager lands. Seconded to the Ethiopian Department of Rural Development, Mr. Sun spends his days trying to identify various vegetable diseases, discussing possible alternative water usage, and debating the pros and cons of sowing onions and peppers in rows or in a scattered fashion. (Harman 2007)

Most volunteers are seconded to Ethiopian ministries. In the most recent round of volunteers, the period of stay was extended to one year, from July 2009 to June 2010. So far, Ethiopia has received 72 youth volunteers, although there have been no volunteers since the last group left in 2010. Some volunteers have returned to Ethiopia later with Chinese companies. The program is expected to continue, although it will remain small scale for the foreseeable future, and at least one Chinese official thought that it was not very successful, possibly because it was too passive and only responded to needs identified by the Ethiopian side (Pers. comm. 2011 and ENA 2009).¹⁷

Bamboo Weaving Training Class (2005–2006)

The Chinese Institute of Subtropical Forestry and the International Network for Bamboo and Rattan held two rounds of workshops on bamboo weaving in Addis Ababa, sponsored by Ethiopia's Federal Bureau of Microenterprise development. A total of 85 Ethiopian students were trained in bamboo cultivation, weaving, and construction of bamboo furniture.

Agricultural Training in China (Since 2006)

A number of Ethiopians have visited China on short training courses organized by the Chinese government. Several of these have focused on agriculture. In October 2006 and May 2007, China Agricultural University's Chinese–Israeli International Center for Research and Training hosted around 20 Ethiopian students from rural development agencies, agricultural colleges, and agro-technology research to visit for three-week courses. The course included field trips to Guangxi, Nanchang, and Guangzhou (Cau.edu.cn 2011). Every year, seven or eight people from Ethiopia's TVET vocational training system come to study China's TVET system.

Agricultural Experts (2009–2010)

As part of the Chinese program to send 100 senior agricultural experts to Africa, Ethiopia hosted two Chinese experts between 2009 and 2010. The experts focused on horticulture, fruit, and vegetables and wrote two training manuals. According to a Chinese agricultural expert who has been working in Ethiopia for a decade, the visit of the two experts was not very successful because it was focused on the policy and planning level, whereas Ethiopia has ample expertise at this level and requires more practical expertise (Chinese agricultural expert 2011).¹⁸

¹⁷Interview, Chinese cultural counselor. Addis Ababa November 14, 2011; ENA. (2009).

¹⁸Interview, Chinese agricultural expert, Alage Vocational School, Ethiopia, November 18, 2011.

Ethiopia–China Agricultural Technology Demonstration Center (Since 2006)

Ethiopia requested one of the agricultural technology demonstration centers pledged to Africa in the 2006 FOCAC meetings. A number of Chinese companies were interested in constructing centers in Ethiopia; more than a dozen bid on Ethiopia during the tender in China (Pers. comm. 2011).¹⁹ The chairman of Guangxi Bagui Agricultural Science and Technology Company visited Ethiopia to investigate the potential before the bid. Guangxi Bagui believes that they won the bid because they assembled a strong team of experts to prepare the bid and because of their own experience building the successful *Bagui Farm—Guangxi Modern Agricultural Science & Technology Demonstration Zone* in China in 1999 (Pers. comm.2011).²⁰

The center, currently under construction, will comprise a cluster of buildings, training facilities, and dormitories, on 52 ha. Finance for the RMB 40 million (\$6.25 million) construction will draw on two separate Economic and Technical Cooperation Agreements (ETCAs), half from the December 18, 2006, ETCA and half from the March 20, 2007, ETCA (“Design-Build” 2009). The first location selected for the center was dropped when resettlement of people living there became too difficult. The current location is about 8 km beyond Ginchi town, 90 km from Addis Ababa. It was already supplied with high-voltage electricity, was sparsely populated, is close to a small river, and has very rich black soil. The Ethiopian side drilled four wells to supply the center. Irrigation is not envisioned, and, as with Tanzanian center, the Ethiopian side is responsible for a solution “if wells cannot meet the water requirements of the demonstration center” (“Experts Visit”).

The construction is being done by Guangxi International Construction Engineering Company, with subcontracts to several other Chinese companies (for the road, for example). Guangxi is employing 32 Chinese engineers and technicians and more than 200 Ethiopians; their road subcontractor, who has been working in Ethiopia for many years, has a team of 4 Chinese, 7 or 8 skilled permanent Ethiopian staff, and 80–90 temporary workers (Pers. comm. 2011).²¹ When the center is completed, it will be turned over to Guangxi Bagui Agricultural Science and Technology Company which will manage it for three years under finance from the Chinese government. During this period, the center has three goals, according to Liang Gaosheng: “The first is to conduct research under the local conditions to ensure what works in China also is effective here. The second is to train local technicians. In three years, we hope to have worked with at least 500 local agricultural professionals, and the third is to ensure when we hand over the center the local partners have the capacity to continue running it successfully” (Clark 2011).

The Ministry of Agriculture intends the station to be closely integrated with the TVET program, particularly as a “trainer of trainers.” According to an Ethiopian official who is closely involved, the center “will be focused on demonstration for the export market” (Pers. comm. 2011).²² The experts will demonstrate best practice in horticultural production, packing, and marketing, “from A to Z ... we have good experience in scaling up. If this is best practice, it will be disseminated to other parts of the country.” Guangxi Bagui has no plans to invest in Ethiopia at the moment, although they are confident that the center will be able to generate enough income from the 52 ha to cover its expenses.

Rural Schools (Since 2008)

As part of the FOCAC program pledge to build 100 rural primary schools in Africa, the Chinese government financed the construction of three rural primary schools in Ethiopia. One was located in the Siltie Zone of the Southern Nations, Nationalities, and Peoples Region (SNNPR) and another in Tigray. Two additional schools are planned (Hongtian 2011).

¹⁹Interview, General Manager, Guangxi Bagui Agricultural Science and Technology Company Ethiopia project, Addis Ababa, November 16, 2011.

²⁰Interview, General Manager, Guangxi Bagui Agricultural Science and Technology Company Ethiopia project, Addis Ababa, November 16, 2011.

²¹Interview, engineer, Guangxi International Construction Engineering Company, Gingchi, November 13, 2011.

²²Interview, TVET official, Ministry of Agriculture, Addis Ababa, November 15, 2011.

Food Aid (Various Years)

China has delivered food aid several times to Ethiopia in this period. In August 2008, China provided a cash contribution of \$400,000 in response to the Ethiopian government's request for assistance, and the Chinese Red Cross contributed \$30,000 (Chinese Embassy in Ethiopia 2009). In September and October 2011, China again delivered food aid to Ethiopia; this time mainly in kind. The Chinese will be shipping at least two batches of food aid comprising rice, wheat, flour, and edible oils, amounting to about \$38 million or 20,000 mt; \$24 million of this is intended for Ethiopia. A Chinese private company, Huajin Group, has also donated \$100,000 for food aid in Ethiopia (Xinhuanet.com 2011).

According to a representative from the World Food Programme (WFP) in Addis Ababa, the Chinese bilateral food aid has been distributed through the national relief pipeline along with contributions from other donors.²³ This is apparently the first time the Chinese have joined the regular donor pipeline for their bilateral contributions. China has been a WFP donor for more than a decade and had contributed around \$20 million in cash to the WFP by mid-November 2011, including \$500,000 in cash to the WFP for Ethiopia. These cash contributions allow WFP more flexibility in purchasing food supplies locally and in financing the distribution via trucks of food shipped to the Horn of Africa's ports by other countries.

²³Their 2011 contribution ranks them between Finland and Belgium as a WFP donor.

5. OTHER RECENT AGRICULTURAL/RURAL COOPERATION, 1999-2011

This section groups a set of activities that are not financed by Chinese official aid and that do not qualify as foreign direct investment. This includes management contracts, an agricultural technical and vocational training program financed by Ethiopia, efforts by Chinese companies to market hybrid millet, commercial loans from Chinese banks, and a \$1.5 billion suppliers' credit from ZTE, a Chinese telecoms firm, which financed the first three phases of Ethiopia's Millennium Telecoms project.²⁴ According to the Ethiopian Roads Authority, over the past decade Chinese companies in Ethiopia have constructed 41 roads for a total of 24 billion Ethiopian Birr (Davison 2010). Although we met several interviewees who believed that China was currently financing rural roads in Ethiopia, in fact most of the many rural road projects carried out by Chinese contractors are financed by other donors (World Bank, OPEC, African Development Bank) or the Ethiopian government.²⁵ Chinese financing has paid for a number of urban roads and flyovers in Addis Ababa, however, and a large toll expressway between Addis Ababa and Adama.

Textile Factory Management Contracts (1999–2004)

After discussions between the two governments, Ethiopia offered management contracts to three Chinese companies to manage the rural, Ethiopian state-owned Kombolcha, Adama, and Awassa Cotton Textile Factories in 1999. The Kombolcha contract was taken up by Tangshan Huaxin Textiles, which also visited Kenya and Cote d'Ivoire. Tangshan sent 18 Chinese managers to Kombolcha in 1999, to run a factory with 2100 Ethiopian staff and workers. In the last year of the contract, after on-the-job training, five Chinese managers remained. According to the general manager from the Chinese team at Kombolcha, the factories had been producing only for the protected local market. They were asked to begin exporting to earn foreign exchange. The Chinese team was able to teach the Ethiopian staff how to export and how to bring the quality of the product up to international standards (Pers. comm.2011).^{26,27}

Tekeze Hydroelectric Project (2002–2009)

The Tekeze hydropower plant, which boasts Africa's highest arch dam, was built by a Chinese company, but the financing was apparently all Ethiopian. As one report put it, "The Tekeze project is being funded entirely by the Federal Democratic Government of Ethiopia. The total project construction cost for all contracts combined with the consultant services are expected to be about US\$365M" (Debebe and Stevenson 2009).²⁸ The Chinese company constructing the dam, China National Water Resources and Hydropower Engineering Corporation (CNWRHEC), won a tender for this project in 2002, beating out Germany's Strabag, Italy's Salini and Impreglio, Japan's Kajima and Enka, Ethiopia's Satcon, Sweden's Skanska, and Austria's Group 5 (People's Daily 2002).

Fincha-Amerti-Neshe (FAN) Hydropower and Irrigation Project (2007–2011)

Built on the Neshe River in Oromia Region, about 250 km northwest of Addis Ababa, this multipurpose project, part of Ethiopia's five-year Growth and Transformation Plan, includes a 97-megawatt (mw) hydroelectric power plant and associated irrigation. The project was carried out by China Gezhouba

²⁴ The suppliers credit comes from a larger package of finance made available by China Development Bank to ZTE for its worldwide operations.

²⁵ Interview, Chinese Economic Counselor's Office, Addis Ababa, November 8, 2011; Interview, Chinese Provincial Construction firm, Addis Ababa, November 9, 2011.

²⁶ Former GM is currently working with the Eastern Industrial Zone, a Chinese project.

²⁷ Interview, former General Manager, Kombolcha Textile Factory, Addis Ababa, November 8, 2011.

²⁸ One of the authors of this story is CEO of the Ethiopian Electric Power Corporation, so the information is believed to be reliable. However, other sources have stated that China Eximbank may have financed \$50 million of the project's costs. We were unable to confirm this in Ethiopia.

Group Company (CGGC). It cost 1.2 billion birr (\$70.6 million) and was partly financed by a commercial project loan from China Eximbank (*Capital (Ethiopia) FAN* 2011).²⁹ Ethiopia is estimated to have developed only five percent of its hydropower potential. The irrigated portion of the project, some 6000 ha, will be used for sugarcane cultivation for the state-owned Fincha Sugar Factory (*Mekuria* 2006). It is not clear if the irrigation infrastructure has also been completed.

Zhangjiakou Academy of Agricultural Research Hybrid Millet Experiments (Since 2009)

In 2008, Hebei Province sent a business delegation to Africa, including an agricultural scientist who has developed a high-yielding hybrid millet. The Ethiopian Ministry of Agriculture was interested in the hybrid millet. Hebei asked the Zhangjiakou City Academy of Agricultural Research to pursue the cooperation. The Academy has a contract with Uniseed, a county-level company, to market their proprietary hybrids, which is a “good business” in China. Eleven provinces in China are growing the patented millet hybrids developed by the Academy. The Academy sends an agricultural engineer to visit Ethiopia periodically to oversee the tests. The millet was tested for two seasons on 11 smallholder’s plots (600 m²) in a semiarid area about 130 km from Addis Ababa, under the supervision of the Ethiopian Institute of Agricultural Research (EIAR). With applications of fertilizers, the plots yielded 3 to 4.5 mt/ha. Two varieties have now been approved for release by the EIAR. The Chinese side would like to be able to market the hybrid seeds, although the Ethiopians would like them to supply the parent stock so that it can be multiplied locally. Until this conflict is resolved, the prospects for the hybrid millet will be on hold.

Addis to Adama (Nazret) Toll Expressway (Since 2010)

This 80 km, six-lane toll expressway project plans to cut the travel time on Ethiopia’s main route to the ports of Djibouti that link the land-locked country to the sea. The current route out of Addis Ababa is extremely congested. This \$612 million project is partially financed by \$349 million from China Eximbank, its first preferential export buyer’s credit to Ethiopia (Chinese Embassy in Ethiopia 2010). A Chinese firm, China Communications Construction Consultancy (CCCC) Ltd., received a no-bid contract for the highway. Construction began on the project in 2010, after some delays due to relocation of people affected by the new route (Gebreselassie 2011).

Kesem Sugar Factory (Since 2011)

In November 2011, the China Development Bank agreed to provide \$150 million in commercial finance for the construction of one of Ethiopia’s planned sugar factories. A Chinese company, COMPLANT, has an EPC contract to build the factory at Kesem, Afar Region, about 500 km from Addis Ababa (Pers. comm. 2011).³⁰ The factory is planned to have the capacity to produce 250,000 mt of sugar annually (Insideethiopia.net 2011). The design will be undertaken by a separate company.

Adama Phase I Wind Farm (Since 2011)

China Eximbank is financing, at least in part, the approximately \$157 million cost of the construction of the first 51 mw phase of the Adama Wind Farm. Two large Chinese construction firms, Hydrochina and CGCOC, are carrying out the work with consultancy services being done by Addis Ababa University, Faculty of Technology. Construction began in July 2011. The turbines for the project are being supplied by Goldwind, a Chinese firm, which is sending 34 units of 1.5 mw turbines to Ethiopia. Adama is located about 95 km southeast of Addis Ababa (*Capital (Ethiopia) 2011* and *Hydrochina.net 2011*).

²⁹The original estimate for the project was 1.3 billion birr.

³⁰ Interview, Chinese official, Addis Ababa, November 8, 2011; Interview, Chief Representative, COMPLANT, Addis Ababa, November 11, 2011; Interview, China–Africa Development Fund officials, Addis Ababa, November 12, 2011.

Gilgel Gibe III Dam Power Distribution Lines, Turbines (Since 2010)

This controversial \$1.95 billion, 1870 mw hydropower project is located about 190 km southwest of Addis Ababa, on the Omo River, and will affect the traditional homelands of several of Ethiopia's more traditional tribes. The dam will negatively affect Kenya's Lake Turkana, home of pastoralist communities and wildlife, and is opposed by conservation groups, although the Kenyan government supports the dam. It is being constructed by an Italian company, Salini. The Ethiopian government is financing the dam out of its own resources. China Eximbank is providing an export credit to finance 85 percent of the \$34 million cost of power distribution lines for the dam, and a Chinese company will carry out this work (Gibe3.com.et 2011). A sub-contract for the turbines and electromechanical works was given to Dongfang Electric Corporation, a Sichuan Chinese firm, and Industrial and Commercial Bank of China, China's largest commercial bank, appeared likely to finance 85 percent of the estimated \$495 million cost (Penwell 2010).

Ethiopia–Djibouti Railway (under Discussion)

Both Indian and Chinese firms have expressed interest in rebuilding the Ethiopia–Djibouti railway. A Chinese company, China Railway Group Limited (CREC), signed a contract on October 26, 2011, but financing remains uncertain.

6. CHINESE FOREIGN DIRECT INVESTMENT (FDI) IN AGRICULTURE AND RURAL DEVELOPMENT, 1999-2011

Many Chinese investors have come to Ethiopia to investigate opportunities in farming and agribusiness. Few have stayed to invest. As the secretary of the local Chinese Business Association put it, “Chinese want a quick return. Farming is too slow” (Pers. comm.2011).³¹ We were given data from the Ethiopian Investment Agency (EIA) on all of the Chinese investments in farming or agribusiness that have received an initial license (pre-implementation) and that have moved to the next stage (implementation) and production (operation) —see Box 6.1. The vast majority of Chinese investment applications have not been translated into investment. We found only three operational Chinese leather factories and one small Chinese farm in operation, with several others in the planning stage.

Box 6.1—China and the Ethiopian Investment Agency (EIA)

The first EIA investment approval for a Chinese farming or agribusiness investment was dated 2004. Firms are allowed a year or two at the stage of pre-implementation, during which they can apply for a plot of land. If they have not moved forward after this stage, their initial license is revoked. The EIA list contained 71 Chinese firms at the pre-implementation stage, nine at implementation, and only five in operation (the five believed to be “in operation” included a sausage casing company, leather shoes factory, agricultural machine assembly, bone processing, and a mixed farming venture that had only requested 2000 m² of land.)

We double checked the entire list in a focus group organized with the Chinese business community. They did not recognize most of the names, but were able to identify a small number of investors that had already returned to China and some on the pre-implementation list that were actually operational. Our team also phoned all of the “operational” and “implementation” companies and all of the farming projects listed as in pre-implementation. Most did not have working phone numbers. The EIA was in the process of phoning all of the animal husbandry investment applications (including fish farming) when we visited. They reported later that only one—David Huang’s pig farm—was operational, which was consistent with our focus group findings.

Source: Authors’ fieldwork November 2011.

China–Africa Overseas Leather Products (Since 2009)

China–Africa Overseas Leather Products is a \$27 million joint venture between a Henan company, Xinxiang Kuroda Mingliang Leather Co. Ltd., and the China–Africa Development Fund. Xinxiang Kuroda Mingliang Leather Co. Ltd. has 55 percent of the equity in the joint venture, and 45 percent is held by CAD Fund.

Xinxiang Kuroda Mingliang Leather Co. Ltd. is itself a joint venture between a Chinese and Japanese company, established in 1995, in Xinxiang, Henan. They had been importing wet blue skins from Ethiopia, and around 2008, they came to Ethiopia, researched its policies and the market, and decided to invest. The joint venture with CAD Fund, China–Africa Overseas Leather Products, came about from Xinxiang Kuroda Mingliang’s initiative. In 2010, China–Africa Overseas Leather Products built and opened a large factory complex in Sululta, about 40 km from Addis Ababa.

At present, the factory, with all new machinery, has an installed capacity of 12,000 pieces of sheep/goat leather daily and expects to be producing 9000 daily by January. The factory has 25 Chinese staff and 350 local employees (including 20–25 local workshop directors and group managers) at present; 65 percent are women, all working one shift, six days a week. A small number of student interns from the

³¹ Interview, Secretary of Chinese Business Association, November 12, 2011.

Addis Ababa Leather Institute are also working at the factory. Because of the VAT system, they cannot buy skins directly from farmers but only through warehouses. All of their products are exported (this is a requirement in order to maintain their 5–7 years of tax-free status), although a Chinese shoe factory that is planning to invest in Ethiopia would like to purchase shoe leather from them. We were shown the waste water treatment plant for the factory which uses bioactivity. According to the Chinese economic counselor, the factory has spent \$3 million on its waste treatment plant, and the quality is higher than most other tanneries in Ethiopia (Pers. comm. 2011).³² The management expects to recoup their investment costs in three to five years and say they are already profitable in terms of daily operating costs. The factory is planning a second phase for \$25 million to add machinery to process cow leather and to build a kidskin glove factory.

Ethiopia Beihua Farm (Since 2009)

This farm of 100 mu (about 6 to 7 ha) is located in Debre Zeyit, about 45 km from Addis Ababa. The owner, David Huang, a native of Jilin, China, arrived in Ethiopia in 2006 to investigate investment opportunities and started the farm in 2009 with an investment of about RMB 2 million (\$312 thousand) (Pers. comm. 2011).³³ The farm has 10 Chinese agricultural specialists and 20 Ethiopians on staff and brings in another 30 part-time Ethiopian workers when necessary. After his investment application was approved, the owner applied to the local government and then negotiated with the village leader and about 15 local farmers to combine sections of smaller land into a larger parcel. He has a five-year contract and pays rent directly to the local farmers but reports to the local government. The farm grows only Chinese vegetables and can produce over four seasons but not on all of the land. The farm is completely organic and is modestly profitable, and he uses the vegetables in a Chinese restaurant that he also owns. He also has a pig farm in another, separate location and is also investing in a leather tannery in Modjo which will be the fourth Chinese leather tannery. He and a Chinese partner are also in the process of purchasing a partly finished leather tannery from an Ethiopian entrepreneur who lacks funds to continue. David Huang said that as far as he knows, he is the only Chinese investor at present with a working farm in Ethiopia, and this is consistent with our focus group findings and interviews at the Ethiopian Investment Agency. Most of the 10–15 Chinese restaurants in Addis Ababa buy their vegetables from Ethiopian farmers, including one who used to work for Chinese experts and learned how to grow Chinese vegetables (Pers. comm. 2011).³⁴

Friendship Leather Factory (Since 2010)

A Chinese private firm from the town of Baoding in Lixian county, Hebei province, Baoding Jeronimo Fur Product Company, has built a tannery, Friendship Leather Factory, with a daily capacity of 6000 hides in Modjo, about 73 km southeast of Addis Ababa. The parent company, founded in 1994, with a focus on leather gloves, already has leather factories in Sudan, Mali, and Somaliland. They plan to expand into finished leather goods production in Ethiopia at a separate location (Pers. comm. 2011; *Fortune* [Addis Ababa] 2011).³⁵ We also learned of a third Chinese leather factory currently in operation but were told that it is much smaller than China–Africa and Friendship.

Hunan Dafengyuan Agriculture Co. Ltd. Sugar Plantation (Since 2010)

Hunan Dafengyuan Agricultural Company is a joint venture set up to invest in Ethiopia by two Hunan companies: Longping High-Tech, founded by one of China’s most revered agricultural scientists, and Ershisanye Construction Group, a Hunan subsidiary of the national conglomerate China Minmetals. They

³²Interview, Chinese economic counselor, Addis Ababa, November 8, 2011.

³³Interview, Chinese investor, Addis Ababa, November 18, 2011.

³⁴Interview, Secretary, Chinese Business Association, Addis Ababa, November 15, 2011.

³⁵Interview, Chinese economic counselor, Addis Ababa, November 8, 2011; *Fortune* (Addis Ababa). 2011. “Mojo to Gain Two New Tanneries.” March 14.

have signed a 40-year lease for 25,000 ha of land located in Gambella Region, with the standard payment of 158 birr (about \$9) per ha (an annual payment of about \$232,353) (Land Rent Contractual 2010).

This project moved relatively quickly and then stalled. In March 2010, the Changsha, Hunan branch of the Ministry of Commerce held a large workshop in a local hotel, bringing a number of Chinese stakeholders, including local offices of China Eximbank, together to discuss its prospects (Dafengyuan.com 2011). The company received investment approval on September 22, 2010, and signed a lease contract on December 12, 2010. The lease requires the company to pay the down payment within 30 days, do an environmental impact assessment within three months, and begin to develop the land within six months. The government committed to deliver the land “vacant” and “free of impediments” 30 days after the down payment was received. Although the company has reportedly put down the required 3.95 million birr one-year down payment, they are apparently unhappy about the land they were allocated and have temporarily left Ethiopia, suspending their investment (Pers. comm. 2011).³⁶

There are presently no roads in the area where the land is located, although photographs of the area on the company’s website show some scattered dwellings. Hunan Dafenyuan is interested in producing sugarcane in Ethiopia because the sugar content of Ethiopian cane is said to be 3 percent higher than in other African countries. The region, Gambella, where the land is located, is sparsely populated. Gambella contains a national park, however, the location of this farm would be far from the boundary of the park.

Cao Junhan Oil Seeds or Sugarcane Production and Processing or Both (Pre-implementation)

We reached the investor by phone, and he confirmed in a very brief interview that they have applied for several thousand ha of land in the south of the country and are waiting for permission to be granted (Pers. comm. 2011).³⁷ The application in the EIA suggested that they would apply for land in the Amhara Region.

Dire Dawa Textile Zone (under Discussion)

Ethiopia plans to develop a cotton cluster in Dire Dawa, and Prime Minister Meles promoted the idea during his visit to China in August 2011. In October 2011, a delegation of 31 Chinese companies arrived to investigate the feasibility and attractiveness of this initiative. Ethiopia has prepared 25,000 ha of irrigated land for cotton investment (Chinese Embassy in Ethiopia 2011).

Sugar Factory (under Discussion)

The China–Africa Development Fund office in Addis Ababa has looked into the possibility of doing a joint venture with a Chinese company to invest in one of the ten sugar plantation and factory complexes planned by the Ethiopian government. They have discussed this with COMPLANT, But COMPLANT at present prefers to be a contractor rather than an investor.

Changfa–Ethiopia Agricultural Equipment Manufacturing (under Discussion)

Huang Xiaoping, president of the Changfa Group, a private firm from Changzhou, Jiangsu Province, has signed an initial letter of intent to open an agricultural equipment factory in the Eastern Industrial Zone to assemble tractors, combine harvesters, and rice transplanting machines. We learned that the company is presently seeking an Ethiopian joint venture partner for the project.

³⁶Interview, Chinese official, Addis Ababa, November 8, 2011.

³⁷ Phone Interview, Addis Ababa, November 16, 2011.

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