Social Responsibility or Development Responsibility? What is the Environmental Impact of Chinese Investments in Africa: What are its Drivers, and What are the Possibilities for Action?

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The economic ties between China and Africa have witnessed rapid and continuous growth for the last decade.[1] Bilateral trade volume has increased from US$ 10.59 billion in 2000 to US$ 210.25 billion in 2013, an increase of twenty times within fourteen years.[2] More recently, Chinese enterprises shifted their focus from trade to investment. According to the Chinese Ministry of Commerce (MOFCOM)'s database, there were only

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1. *See* Maria Pigato & Wenxia Tang, *China and Africa: Expanding Economic Ties in an Evolving Global Context*, The World Bank (Mar. 2015), https://openknowledge.worldbank.org/handle/10986/21788.

2. *See* Nat'l Bureau of Statistics of China, China Statistical Yearbook 2001 tbl.17-7 (2001), http://www.stats.gov.cn/english/statisticaldata/yearlydata/YB2001e/ml/indexE.htm; Nat'l Bureau of Statistics of China, China Statistical Yearbook 2014 tbl.11-6 (2014), http://www.stats.gov.cn/tjsj/ndsj/2014/indexeh.htm.

888 enterprises registered to invest in Africa before 2010.[3] From January 2010 to January 2015, however, 2,161 firms had registered their outward investments to Africa.[4] That is to say, the number of Chinese investments in Africa within the past five years more than doubled the total number of investments from the previous twenty years.[5] Correspondingly, the stock of Chinese outward foreign direct investment in Africa also rose from US$ 0.618 billion in 2003 to US$ 26.19 billion in 2013.[6]

The rapid expansion of Chinese investments in Africa has attracted global attention. Policymakers, business people, civil society, and citizens are not only interested in investigating how Chinese investments influence Africa economically and politically, but also are concerned with the impact of Chinese enterprises on the continent's environment. Africa is well known for its pristine forests and savannas, for the natural life which is still relatively untouched by industrialization, and for unique but fragile ecosystems which are facing the serious challenge of global climate change. When a large number of Chinese enterprises enter the continent, they are set to alter the landscape greatly through the gigantic scale of construction and operations. Unfortunately, Chinese enterprises do not have a good track record of environmental practice either domestically or overseas.[7] They are often criticized for reckless commercial exploitation without sufficient consideration of social-environmental consequences.[8] For instance, in 2006, the major Chinese state-owned oil conglomerate Sinopec was accused of illegally prospecting for oil in Gabon's Loango National Park.[9] The company carved roads through the forest, dynamited areas of the park, and caused mass pollution.[10] In June 2013, Ghanaian authorities arrested over one hundred foreign gold miners, most of whom were Chinese.[11]

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3. *Database of Registered Investment Projects*, CHINESE MINISTRY OF COM. [hereinafter MOFCOM Database], http://wszw.hzs.mofcom.gov.cn/fecp/fem/corp/fem_cert_stat_view_list.jsp (last visited Jan. 31, 2015). This database (in Chinese) shows MOFCOM's registered investment projects overseas.

4. *Id.*

5. *Id.* Though the MOFCOM database is the single most complete listing of Chinese investments in Africa, it does not necessarily depict a precise picture of Chinese investments on the ground. Many Chinese companies never register with MOFCOM and therefore are not included in the list.

6. NAT'L BUREAU OF STATISTICS OF CHINA, CHINA STATISTICAL YEARBOOK 2004 tbl.18-15 (2004), http://www.stats.gov.cn/tjsj/ndsj/2005/indexeh.htm; NAT'L BUREAU OF STATISTICS OF CHINA, CHINA STATISTICAL YEARBOOK 2014 tbl.11-19 (2014), http://www.stats.gov.cn/tjsj/ndsj/2014/indexeh.htm.

7. *See, e.g.*, Aly Song, *China Says Polluting Industry Still Growing Too Fast, Heavy Smog Alert for Beijing*, REUTERS (Mar. 25, 2014), http://www.reuters.com/article/2014/03/25/us-china-environment-pollution-idUSBREA2O0BZ20140325.

8. *See* Ian Taylor, *China's Environmental Footprint in Africa*, CHINADIALOGUE (Feb. 2, 2007), https://www.chinadialogue.net/article/741-China-s-environmental-footprint-in-Africa.

9. *Id.*

10. *Id.*

11. Ming Zhongguo Gongmin Jiana Beibu; Junjing Songyong Cunmin Xijie Huaren (名中国公民加纳被捕军警怂恿村民洗劫华人) [*124 Chinese citizens arrested in Ghana; police encourage villagers to ransack Chinese*] TENCENT NEWS (June 6, 2013), news.qq.com/a/20130606/000651.htm. *See* Afua Hirsch, *Ghana deports thousands in crackdown*

These Chinese businessmen not only illegally invested in small-scale mining, but also polluted lakes and rivers through poor operational practices.[12] In August 2013, the Chadian government suspended China National Petroleum Corporation's (CNPC) license for oil exploration in the country.[13] In the firm's operational area, large quantities of oil spill were reportedly discovered.[14]

In this context, it is necessary and timely to examine Chinese firms' environmental practice in Africa. Literature about Chinese firms' environmental impact appeared as early as China-Africa engagements attracted the global public's attention. Ian Taylor argued that China's environmental concerns at home have driven its firms to go to Africa for resources, likely leading to exploitation of Africa's environment.[15] Michelle Chan-Fishel, Marcel Kitissou, and Tina Butler pointed out that China's mineral and timber operations in Africa do not have good environmental records, but they also argued that Chinese firms' track records are not markedly different from those of other nationalities.[16] Douglas Scott, in a report prepared for Conservation International, pointed out the potential dangers of Chinese mining, oil, and gas operations in Africa due to their proximity to areas of high conservation value.[17] Oliver Hensengerth studied the construction of Bui dam in Ghana by Sinohydro.[18] He argued that even if the environmental practices are not stellar, the Chinese company appeared to abide by the local laws.[19] Yet however intriguing these snapshots are, these scattered case studies cannot give us a complete picture. Chinese investments need to be examined more systematically in order to see larger patterns—not only about whether environmental abuses are occurring, but also in which sectors and why.

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on illegal Chinese goldminers, The Guardian (July 15, 2013), http://www.theguardian.com/world/2013/jul/15/ghana-deports-chinese-goldminers.

12. *See* Hirsch, *supra* note 11.

13. Chen Zhiyu, Zhade Zanting Zhongshiyou Kaicai Huodong, Cheng Qi Weifan Huanjing Fagui (乍得暂停中石油开采活动 称其违反环境法规) [*Chad temporarily halts CNPC extraction activity, cites violations of environmental regulations*], Global Times (Aug. 15, 2013), http://world.huanqiu.com/exclusive/2013-08/4243582.html. *See* Natasha Howitt, *Chad suspends CNPC's oil operations after oil spill*, chinadialogue (Aug. 22, 2013), https://www.chinadialogue.net/blog/6315-Chad-suspends-CNPC-s-oil-operations-after-oil-spill/en.

14. Chen, *supra* note 13; Howitt, *supra* note 13.

15. Taylor, *supra* note 8.

16. Tina Butler, *Growing Pains and Growing Alliances: China, Timber and Africa*, *in* Africa in China's Global Strategy 156, 156–61 (Marcel Kitissou ed., 2007); Michelle Chan-Fishel, *Environmental Impact: More of the Same*, *in* African Perspectives on China in Africa 139, 139–52 (Firoze Manji & Stephen Marks eds., 2007).

17. Douglas Scott, Do Chinese Extraction (Mining, Oil & Gas) Activities in Africa Overlap with Areas of Conservation Value? 4 (unpublished report) (on file at Conservation International), http://www.academia.edu/1002354/Do_Chinese_Extraction_Mining_Oil_and_Gas_Activities_in_Africa_overlap_with_Areas_of_Conservation_Value.

18. Oliver Hensengerth, Interaction of Chinese Institutions with Host Governments in Dam Construction: The Bui Dam in Ghana 4 (Mar. 2011) (unpublished discussion paper), http://www.die-gdi.de/uploads/media/DP_3.2001.pdf.

19. *See id.*

At the policy level, Peter Bosshard believed that strengthening the regulation of socio-environmental impacts of overseas Chinese investments was in China's own interest, but at the time, the regulatory framework was still too simple and weak.[20] Recently, Campagnon and Alejandro discussed the latest trends of China's externally oriented environmental policy, but did not sufficiently examine the connection between policy and practice on the ground at the sites of outbound investment.[21] Clearly, another salient research question is whether and how Chinese government policy impacts the operations of Chinese firms as they invest in other developing countries.

This Article presents a more complete and clear picture of the environmental impact of Chinese investments in Africa. Mainly based on interviews and field trips in Beijing and Africa between 2012 and 2014, this Article not only describes the practices of Chinese enterprises in various sectors and of different types, but also offers a review of the Chinese government's regulations and policies on firms' environment-related practices overseas. Most importantly, we would like to shed light on the reasons behind the activities of Chinese firms and the policies of the Chinese government. We argue that both the environmental impact and the root cause of Chinese engagements are diverse. The level of negative environmental impact varies by industry and company attributes, such as size and connection to the Chinese government. Some negative impacts are caused by the lack of awareness of Chinese investors, some can be attributed to defects in national or international regulatory systems, and others are the results of expanding global capitalism, which is common to investors from all countries. In addition, we find that China has a different view on the relationship between development and environmental protections than Western countries. This means that despite some convergence in recent years, China will not necessarily end up aligning with the existing standards of environmental conservation, but instead may seek to revise it with new perspectives. Critics ought to avoid a simplistic, stereotyped understanding of the effects and dynamism of the Chinese engagements. Only by taking these complexities and nuances into full consideration can we find feasible and effective methods to improve Chinese firms' environmental practices in Africa.

To make sense of the multiple interplays between public and private sector forces, national and international dynamics, and policy and practice, this Article offers a simple theoretical framework. We posit that there are three major types of conduct that mitigate harmful environmental consequences of economic activity, implicating varying levels of outside imposition on for-profit firms. In addition, for any given environmentally-

20. Peter Bosshard, *China's Environmental Footprint in Africa*, S. AFR. INST. INT'L AFF. (Apr. 2008), http://www.saiia.org.za/doc_download/234-china-africa-policy-brief-no-3-april-2008.

21. Daniel Compagnon & Audrey Alejandro, *China's External Environmental Policy: Understanding China's Environmental Impact in Africa and How It Is Addressed*, 15 ENVTL. PRAC. 220, 221 (2013).

related action, there may be widely diverse drivers of that action, ranging from hard dollars-and-sense business logic to societal conceptions of the public good. Hence, one of the central tenets of this Article is the necessity to disaggregate the broad concern about China's impact on Africa's environment into a more nuanced understanding of the multiple actors and motivations at play.

	Types of conduct	Drivers of conduct
Voluntary ↑	1 **Private sector voluntary action**	• Business logic (i.e., high costs over medium- to long-term if environment is not safeguarded) • Customer preferences • Managers' ability & experiences • Interaction with local African government officials
	2 **Government guidelines and regulation** • By China • By African nations	• International relations and norms • Valuing of public goods • Public pressure (e.g., by NGOs and civil society)
Imposed ↓	3 **International law**	• International relations and norms • Trade rules • Public pressure (e.g., by NGOs and civil society)

This Article is divided into five parts. Part I focuses on the private sector part of the framework above. Parts II and III move to the government portion, and Parts IV and V explore the dynamic interplay between the three archetypes identified. Specifically, Part I investigates how Chinese enterprises' operations in Africa transform the social-environmental landscape there, highlighting the fact that different sectors and types of companies show different patterns of behavior with regard to the environment. Part II focuses on Chinese government policy on environmental practices of its companies in Africa. Chinese banks' attitudes are also considered here, as they play an important role in influencing investments overseas. Part III analyzes Chinese views on the relationship between economic development and environment. This can help us better understand the reasons behind Chinese government and firms' behaviors. Part IV makes a comparison of how other countries monitor and regulate the environmental practices of their firms' overseas operations. Part V aims to identify feasible approaches towards environmental conservation in developing countries.

I. Overview of Chinese Enterprises' Environmental Footprint in Africa

Describing thousands of Chinese investments in Africa as a whole can be too general and simplistic. Enterprises' environmental practices may vary greatly according to different countries' regulations, size of investments, ownership, and industrial sectors.[22] Each of Africa's fifty-four countries and multiple regional groupings has their own environmental regulations, which shape diverse entrepreneurial behaviors in each context.[23] Due to length limitations, this Article cannot cover the performance of Chinese firms in all African countries. A useful way to begin to disaggregate this large and complex whole is to look at characteristics by ownership and by sector, as the former is a useful way of understanding entrepreneurial decision-making and the latter reflects differences in business and regulatory forces exerted differentially by industry.

Ownership and size of investments make a big difference when it comes to compliance with environmental standards and willingness to invest in proactive socio-environmental preservation. Generally speaking, we have found a divide between large state-owned enterprises (SOEs) and small private businesses. The larger companies (with capital of over US$ 10 million), most of which are SOEs, pay more attention to socio-environmental issues, whereas smaller private business often evade government control and sometimes unscrupulously pursue short-term profits at the cost of environmental and social goods.[24] As an official in the Chinese Ministry of Environment Protection (MEP) said,

> Large state-owned enterprises are doing fine with Corporate Social Responsibility ("CSR"). They have the capacity and awareness to do it. The small private companies are more problematic, especially the mining and timber traders. They cause damage to Africa's environment and are very difficult to manage.[25]

There are several reasons for this gap. First, large companies usually have long-term investment horizons.[26] Hence, they have a stake in creating a friendly investment environment in the host country, whereas private businesses can be short-term focused. In particular, many smaller companies are run by founder-owners, who are entrepreneurs aiming eventually to retire back to China rather than build businesses in perpetuity in Africa.

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22. *See, e.g.*, Scott, *supra* note 17 (examining Chinese environmental practices in various contexts).

23. *See* Mohammed A. Bekhechi & Jean-Roger Mercier, The Legal and Regulatory Framework for Environmental Impact Assessments: A Study of Selected Countries in Sub-Saharan Africa 13–22 (2002), http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2002/05/30/000094946_02051004035924/Rendered/PDF/multi0page.pdf.

24. Interview with Yuchuan Yang, Team Leader, Project Management Division II, Foreign Economic Cooperation Office, Ministry of Environmental Protection, in Beijing, China (Sept. 27, 2014).

25. *Id.*

26. David F. Larcker et al., 2014 Study on How Investment Horizon and Expectations of Shareholder Base Impact Corporate Decision-making 1 (2014), https://www.gsb.stanford.edu/sites/default/files/2014_Investment-Horizon-Final_0.pdf.

Hence, they are more likely simply to move to another country if business prospects sour due to environmental or social damage. Second, large companies are often scrutinized more closely by authorities and by the public.[27] Thus, quite a few of them have dedicated public relations departments and more sophisticated attitudes, as well as resourcing to implement related internal controls related to socio-environmental issues.[28] In contrast, smaller private companies are more inclined to solve problems that arise in an ad hoc manner, or "under the table."[29] Third, Chinese embassies and government commercial offices located in African countries regularly contact and visit larger companies, but have no capacity to track smaller companies, with the exception of crisis situations.[30]

Nonetheless, large SOEs are only better in the relative sense. Negative reports on these firms' practices, such as the earlier mentioned stories on Sinopec and CNPC, are not uncommon in African media.[31] Notably, large SOEs make up thirty-eight percent of the investments registered in the MOFCOM database.[32] Of these, roughly half are central government-owned enterprises, and half are provincial government-owned, which are on average smaller than the central SOEs.[33] A number of Chinese overseas investments, however—particularly small private firms—do not register with MOFCOM, so the real proportion of purely private Chinese investment is likely to be much greater than approximately sixty percent in numbers.[34] Even so, the scale of SOEs' operations in Africa dwarfs the typical private investment; hence, SOEs' environmental impact may in fact be as large as or more consequential than private investment.

Another reason for the diversity of environmental impact is the industrial sector in which a firm works. The MOFCOM database gives us a sense of the proportion of firms involved in each industry (see Table 1).[35] This data shows that Chinese investments are concentrated in several sectors such as trade, manufacturing, and mining. Among the industries that have attracted a significant number of Chinese firms (using the threshold of more than five percent), manufacturing, mining, construction, and agriculture are particularly relevant to environment concerns. Below, Chinese companies' respective environmental practices in these four major industries in Africa are discussed.

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27. *See* Yang, *supra* note 24.

28. *See id.*

29. *See id.*

30. *See, e.g.*, Lucy Corkin, *Competition or Collaboration? Chinese & South African Transnational Companies in Africa*, 35 REV. AFR. POL. ECON. 128, 130 (2008); interview with Ma Futao, Secretary of the Chinese Chamber of Commerce in Ethiopia, in Addis Ababa, Eth. (2009).

31. *See also* Philippe Alfroy, *China Sparks Conservation Uproar in Gabon*, IOL (Sept. 29, 2006), http://www.iol.co.za/news/africa/china-sparks-conservation-uproar-in-gabon-1.295607?ot=inmsa.ArticlePrintPageLayout.ot.

32. MOFCOM Database, *supra* note 3.

33. *Id.*

34. *Id.*

35. Please note that the total sum exceeds one hundred percent because some firms operate in multiple industries.

Table 1. Industrial Sectors of Chinese Firms' Involvement

Industry	% of MOFCOM-registered firms
Wholesale and retail trade	72.0%
Manufacturing	46.5%
Mining	44.5%
Leasing and business services	31.4%
Scientific, technical services and geological prospecting	29.5%
Construction industry	24.2%
Residential services and other services	8.3%
Agriculture, forestry, animal husbandry and fishery	7.7%
Real Estate	5.0%
Transportation, storage and postal services	4.3%
Hospitality industry	2.2%
Information transmission, computer services and software	1.3%
Electricity, gas and water production and supply	0.6%
Financial industry	0.4%
Culture, sports and entertainment	0.3%
Education	0.2%
Health, social security and social welfare	0.1%
Water conservancy, environment and public facilities management	0.1%
Public administration and social organizations	0.1%
International organizations	0.0%

A. Manufacturing

Chinese enterprises are active in a wide range of manufacturing sectors in Africa, including processing of raw materials, plastics, clothing, furniture, and food.[36] Their environmental practices vary largely according to their products and business models.[37] Some of these firms serve domestic African markets, especially in populous countries like Nigeria.[38] Others set up factories in Africa to supply manufactured products, such as clothes and shoes, to European and American clients, such as Levi's, The Gap, and

36. *See, e.g.*, Ron Sandrey & Hannah Edinger, *China's Manufacturing and Industrialization in Africa* 6 (Afr. Dev. Bank Grp., Working Paper No. 128, 2011), http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Working%20128.pdf.

37. *See* Christopher Alessi & Beina Xu, *China in Africa*, Council on Foreign Rel. (Apr. 27, 2015), http://www.cfr.org/china/china-africa/p9557.

38. *See* Miria Pigato & Wenxia Tang, China and Africa: Expanding Economic Ties in an Evolving Global Context 1 (Mar. 2015), http://www.worldbank.org/content/dam/Worldbank/Event/Africa/Investing%20in%20Africa%20Forum/2015/investing-in-africa-forum-china-and-africa-expanding-economic-ties-in-an-evolving-global-context.pdf.

Walmart.[39] This trend was accelerated in the wake of the African Growth and Opportunity Act (AGOA) that provided tariff-free access to the U.S. market for certain African countries.[40] These firms need to abide not only by the regulations of African countries, but also the corporate social responsibility (CSR) requirements of their Western clients. During recent years, European and American firms have significantly raised the bar on environmental and social compliance for their business operations, as well as for those of their suppliers.[41] These additional CSR requirements supplement African governments' local administration to limit the environmental impact of industrialization to a socially acceptable level.

When Chinese manufacturers are not subject to outside customer pressures and are monitored by African authorities alone, the situation is often more challenging. One problem is that African countries have different regulatory systems than China does, so some Chinese firms are not familiar with or used to such systems. For instance, a Chinese factory owner in Botswana complained that he had to hire a third-party consulting firm to complete a required environmental inspection report.[42] He perceived this to be an additional cost burden for him because in China, the officials did the inspection.[43] Lack of applicable standards is another common problem. A Chinese sisal farmer in Tanzania said that the waste water from sisal processing had a high concentration of organic materials, which may harm waters in surrounding areas.[44] Although the discharge of waste water was regulated in China and other countries, Tanzania did not have requirement in this respect yet.[45] Consequently, sisal farms in Tanzania treated the waste water without following a common stringent standard.[46] As more Chinese firms enter Africa's underdeveloped manufacturing sectors, they often bring machines, technologies, and production processes

39. Christopher Maloney, All Dressed Up With No Place to Go? Lesotho's Rollercoaster Experience with Apparel (Mar. 27, 2006) (unpublished MPA thesis, Harvard Kennedy School of Government), http://www.hks.harvard.edu/index.php/content/download/66902/1240418/version/1/file/maloney-sypa.pdf.

40. *See* John Njiraini, *AGOA: The US-Africa Trade Dilemma*, AFR. RENEWAL (Dec. 2014), http://www.un.org/africarenewal/magazine/december-2014/agoa-us%E2%80%93africa-trade-dilemma.

41. As one example, The Gap has consistently evolved and elevated its requirements for its suppliers to provide adequate workplace standards. *See* Dan Henkle, *Gap Inc. sees supplier ownership of compliance with workplace standards as an essential element of socially responsible sourcing*, 25 J. OF ORG. EXCELLENCE 17 (2005). Another example is Walmart elevating its environmental standards for suppliers. *See Wal-Mart Ramps Up Standards for Suppliers in China, Around the Globe*, GREENBIZ (Oct. 22, 2008), http://www.greenbiz.com/news/2008/10/22/wal-mart-ramps-standards-suppliers-china-around-globe.

42. Interview with Mr. Yan, Chinese Factory Owner, in Gaborone, Bots. (Aug. 2013).

43. *Id.*

44. Brigitte Read, *Ploughing in Africa: The Story of a Chinese Sisal farm in Tanzania*, CHINA-AFR. REPORTING PROJECT (June 19, 2013), http://china-africa-reporting.co.za/2013/06/ploughing-africa-the-story-of-a-chinese-sisal-farm-in-tanzania.

45. Interview with Guan Shanyuan, Manager of Chinese Sisal Farm, in Dar es Salaam, Tanz. (Aug. 2014).

46. *Id.*

that are new to African markets.[47] Local authorities face serious capacity constraints in regulating these newcomers appropriately.[48]

Notably, quite a few newly arriving Chinese manufacturers are working in sectors that tend to cause more pollution, such as small-scale steel production and leather processing.[49] As Chinese societal awareness of the need to protect the environment has risen steadily, along with tightening of environmental regulations in China, factories generating waste and hazardous materials need to spend increasing amounts of money in waste treatment.[50] These factors push factory owners to relocate the polluting parts of their business to regions where production costs are lower and public resistance is less. Seeing that some African jurisdictions have relatively lower requirements regarding waste treatment, some Chinese factories have shifted their production bases to Africa.[51] This includes processing of raw skins, manufacturing of non-biodegradable plastic bags, and steel production using relatively older, more polluting technology.[52] Interestingly, some African governments showed welcoming attitudes towards such relocations. As an Ethiopian official stated, "It's true that tanneries may produce unpleasant smell and pollute water, but we can accept this. Our priority now is to build industrial capacity and create employment."[53]

B. Extractives

More than other industries, Chinese extractives industries are a bifurcated bunch. On one end of the spectrum, large state-owned oil companies like Sinopec have well-staffed, dedicated CSR departments and issue annual reports on sustainability.[54] On the other end of the spectrum, small, fly-by-night mining companies regularly flout local regulation and engage in environmentally and socially destructive practices.[55]

Small-scale Chinese private mining companies have caused serious

47. Interview with Lei Changqing, General Manager, Chang Qing International Investment & Ocean Kiss Furniture, in Dar es Salaam, Tanz. (Aug. 2014); interview with He Mingliang, President, China-Africa Overseas Leather Co., in Addis Ababa, Eth. (July 2012).

48. Changqing, *supra* note 47; Mingliang, *supra* note 47.

49. Interview with Wondu Legesse Gizaw, Director of Leather Indus. Dev. Inst., in Addis Ababa, Eth. (July 2012).

50. Jonathan Kaiman, *China strengthens environmental laws*, THE GUARDIAN (Apr. 25, 2014), http://www.theguardian.com/environment/2014/apr/25/china-strengthens-environmental-laws-polluting-factories.

51. Sophia Pale, *China in Africa: a Shift in the Global Manufacturing Center*, NEW EASTERN OUTLOOK (Sept. 23, 2014), http://journal-neo.org/2014/09/23/china-in-africa-a-shift-in-the-global-manufacturing-center.

52. Gizaw, *supra* note 49.

53. *Id.*

54. *See generally* SINOPEC CORP., COMMUNICATION ON PROGRESS FOR SUSTAINABLE DEVELOPMENT (2014).

55. *See* MICHAEL L. DOUGHERTY, BY THE GUN OR BY THE BRIBE: FIRM SIZE, ENVIRONMENTAL GOVERNANCE AND CORRUPTION AMONG MINING COMPANIES IN GUATEMALA 11 (Sept. 2015), http://www.u4.no/publications/by-the-gun-or-by-the-bribe-firm-size-environmental-governance-and-corruption-among-mining-companies-in-guatemala/downloadasset/3900.

damage to the environment in several countries.[56] In Ghana, the government arrested hundreds of illegal Chinese and other origin gold miners in June 2013.[57] These small-scale miners were accused of water and soil pollution.[58] A large number of small-scale Chinese miners also operate in the Lubumbashi area of the Democratic Republic of Congo.[59] Because the administration in this region is apparently weak, the environmental damage from mining activities is reportedly significant.[60] Larger-scale firms do have better environmental practices, but they still have accidents and violations.[61] Because of their larger size, these incidents may cause greater damage and attract more public attention.

Although almost half of the Chinese investments registered with MOFCOM claimed that they engage in the extractives business, the reality of mining investments looks quite different.[62] Most Chinese investments in the extractives sector are only at the stage of prospecting or exploration.[63] Using Tanzania as an example, MOFCOM data shows that nineteen firms are registered for mining in the country. An author's field visit in August 2014, however, found that none of these companies were really operating any mines on the ground. Only one firm was preparing to open a coal mine in Tanzania, and others were merely prospecting or trading minerals. Similarly, in oil, China imports large volumes of oil from Africa, but Chinese firms do not have shares or operatorship in many oil fields because of late entry into the market and technological constraints. European and American giants operate and control most of Africa's oil fields.[64] Therefore, the impact of Chinese investments on Africa's extractive sector and on the environment is relatively small and local.

C. Construction

Chinese construction companies in Africa generally follow local regulations and conduct social and environmental impact assessments before project commencement.[65] Usually, the Chinese Investors Commission

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56. *See* David S. Shinn, *The Environmental Impact of China's Investment in Africa*, INT'L POL'Y DIG. (Apr. 8, 2015), http://www.internationalpolicydigest.org/2015/04/08/the-environmental-impact-of-china-s-investment-in-africa/.

57. *See* Palash Ghosh, *Fool's Gold: Chinese In Ghana Resented For Running Illegal Mines, Destroying Environment*, INT'L BUS. TIMES (Apr. 24, 2013), http://www.ibtimes.com/fools-gold-chinese-ghana-resented-running-illegal-mines-destroying-environment-1213883.

58. *See id.*

59. *See* RTS. & ACCOUNTABILITY IN DEV., CHINESE MINING OPERATIONS IN KATANGA DEMOCRATIC REPUBLIC OF THE CONGO 25 (Sept. 2009), http://www.raid-uk.org/sites/default/files/drc-china-report.pdf.

60. *See id.* at 6–7.

61. *See id.* at 8.

62. MOFCOM Database, *supra* note 3.

63. *Id.*

64. *See* Tang Xiaoyang, *Models of Chinese Engagement in Africa's Extractive Sectors and Their Implication*, 56 ENV'T: SCI. & POL'Y FOR SUSTAINABLE DEV. 27 (2014).

65. Interview with Liu Shujun, Commercial Office, Chinese Embassy in Accra, Ghana (July 2014); interview with Chen Chao, Commercial Office, Chinese Embassy in Dar es Salaam, Tanz. (Aug. 2014).

designs projects and drafts the assessments, then submits them for approval to African authorities.[66] Large investors generally follow this practice in African countries, but in several cases, Chinese institutes did not know the specifics of Africa's environment and simply copied the Chinese model in their project design.[67] For example, the original designer of the Zambia Lusaka Multi-facility Economic Zone and the Angola Kilamba New City, both developed by Chinese companies, had never been to Africa when he conceived both projects.[68] If the developers had not revised their design due to difficulty of implementation, then these unrealistic plans would have generated significant unexpected environmental consequences.[69]

The standard process described above is also vulnerable to unlawful behavior on the African side. Local environmental officials are responsible for evaluation and approval, and some Chinese managers have the impression that these officials are more interested in asking for money than seriously evaluating the plan.[70] Our interviewees reported cases in which African government officials gave them the impression that environmental considerations are a mere formality as long as they receive a sufficient bribe.[71] Consequently, some Chinese firms would rather pay a bribe to get through the approval process rather than allocate spending for real environmental assessment and protection.[72]

D. Agriculture

There are not many Chinese farms in Africa, and most are small (less than 1000 hectares).[73] The environmental and social practices of Chinese farms vary across type of investment and countries.

On the positive side, many Chinese farmers in Africa appreciate the relatively unspoiled natural environment and, drawing lessons from China's history of environmental deterioration, actively take measures to preserve the local ecosystem. For example, Wanbao rice farm in Mozambique does not use machines to dispel birds like local farmers do.[74] In the farmer's opinion, local farmers dispel birds because they believe birds eat a large portion of their grains.[75] The situation is different, however, for the Wanbao farmers. As manager Luo Yonghao said, "Our yields are large. What the birds eat is just a very small portion of it. Around 70%

66. *See* David Benazeraf & Ana Alves, *'Oil for Housing': Chinese-built New Towns in Angola*, S. Afr. Inst. for Int'l Aff. 3–4 (Apr. 2014), http://www.saiia.org.za/doc_view/507-oil-for-housing-chinese-built-new-towns-in-angola.

67. *See id.*

68. *See id.*

69. *See id.*

70. Interview with Yang Weiqiang, Lawyer, China Railway Wuju Group, in Accra, Ghana (July 2014).

71. *See id.*

72. *See id.*

73. Deborah Brautigam, Will Africa Feed China? 165–69 (2015).

74. Interview with Luo Yonghao, Manager of Wanbao Rice Farm, in Mozam. (Aug. 2014).

75. *See id.*

of birds' diets are pests, which benefits farming activity".[76] In addition, the Wanbao farm does not use pesticides and instead uses herbicides and a small amount of urea as fertilizer.[77] As Luo Yonghao said, "In China, the use of pesticides caused a vicious circle. Pesticides killed insects, as well as insects' predators, namely birds. The reduction of birds caused an increase of pests, and made farmers more reliant on pesticides."[78] Learning from this lesson, the Wanbao farm attaches great importance to maintaining the existing ecological system. Here, there is voluntary action by firms driven by self-interest, because firms recognize that investment in environmental protection today will mitigate costs in the future.

On the problematic side, a serious threat to Africa's ecosystem is illegal logging and timber smuggling by Chinese firms.[79] In response to these concerns, the Chinese State Forestry Administration and MOFCOM jointly issued the Guidelines on Sustainable Overseas Forests Management and Utilization by Chinese Enterprises in 2009.[80] Chinese officials blame mainly private businessmen for these unlawful activities.[81] This is confirmed by a report from the Center for International Forest Research, which has tracked this issue in detail.[82]

Overall, we can see that the extent of Chinese firms' impact on the environment varies widely by ownership and by sector. At the firm level, decision-making with regards to the environment is driven by several factors, including business logic (such as farms preserving the environment in order to save fertilizer costs), customer preferences (such as manufacturers fulfilling the CSR requirements of their buyers), managers' abilities and expectations (such as the ability to conduct required assessments in-house), and the microdynamics of interaction with local African government officials (such as construction firms encountering local officials asking for bribes).

II. Regulatory Efforts from the Chinese Side

Chinese enterprises in Africa are first and foremost subject to regulation by local authorities.[83] From environmental impact assessments to reg-

76. *See id.*
77. *See id.*
78. *See id.*
79. *See, e.g.*, William Laurance, *China's Appetite for Wood Takes a Heavy Toll on Forests*, YALE ENV'T 360 (Nov. 17, 2011), http://e360.yale.edu/feature/chinas_appetite_for_wood_takes_a_heavy_toll_on_forests/2465/; *China's Illegal and Unsustainable Timber Imports Ransack Mozambique's Forests*, EIA INT'L (July 23, 2014), https://eia-international.org/chinas-illegal-timber-imports-ransack-mozambiques-forests.
80. Zhongguo Qiye Jingwai Senlin Kechixu Jingying Liyong Zhinan (中国企业境外森林可持续经营利用指南) [*A Guidelines on Sustainable Overseas Forests Management and Utilization by Chinese Enterprises]* (promulgated by Chinese St. Forestry Admin. & Chinese Ministry Com., May 6, 2010) [hereinafter *Forests Management and Utilization*], http://www.forestry.gov.cn/portal/main/s/224/content-401396.html.
81. *See id.*
82. Xiaoxue Weng et al., *The Africa-China Timber Trade: Diverse Business Model Call for Specialized Policy Responses*, 28 CTR. FOR INT'L FORESTY RES. 1, 3, 7 (2014).
83. *Id.* at 1–2.

ular environmental inspections, each African country's legislation and administration set up the regulatory framework that all investors, whether from China or elsewhere, need to follow. Traditionally, China has been a strong advocate of the principle of judicial sovereignty, the notion that outsiders should not interfere in African authorities' regulation of enterprises in their own countries.[84] In line with its famous "non-interference" foreign policy, the Chinese government has long stressed that Chinese investors overseas should fully abide by local authorities.[85]

The rapid increase in Chinese investment in Africa, however, and the accompanying controversies about Chinese enterprises' environmental practices have brought growing pressure on the Chinese government.[86] Reports on incidents such as illegal Chinese gold miners in Ghana or the oil spill in Chad tarnished China's international image.[87] A survey by the Ethics Institute of South Africa showed that citizens of multiple African countries have negative perceptions about Chinese companies.[88] In all aspects, such as product quality, employment practice, social responsibility, and economic responsibility, respondents with negative views of Chinese companies outnumbered those who held positive views.[89] In particular, the environmental responsibility of Chinese firms was viewed negatively: 53.9% of the interviewees had negative views, and only 11.1% had positive views.[90] The ballooning amount of complaints among the African public and international groups must have attracted the Chinese government's attention. Whether out of concerns about its reputation or for the purpose of securing friendly relationships with African nations, the Chinese government has taken a series of steps lately to address the socio-environmental practices of Chinese enterprises in Africa more actively.

At the end of 2007, the State-owned Assets Supervision and Administration Commission of the State Council, the Chinese government agency that owns and regulates central government-owned enterprises, promulgated the Guidelines to the State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities.[91] The document emphasizes the importance of corporate social responsibility for

84. *See* Richard Aldoo et al., *Non-Interference 2.0: China's Evolving Foreign Policy towards a Changing Africa*, 44 J. CURRENT CHINESE AFF. 107, 110–12 (2015) (noting that non-interference is part of Beijing's "official foreign policy").

85. *Foreign Relations–Africa*, GLOBAL SECURITY (Nov. 8, 2015), http://www.globalsecurity.org/military/world/china/forrel-africa.htm.

86. *See* Denise Leung, *How Are China's Overseas Investments Affecting the Environment?*, WORLD RESOURCES INST. (May 9, 2013), http://www.wri.org/blog/2013/05/how-are-china%E2%80%99s-overseas-investments-affecting-environment (noting that China's Ministry of Commerce and Ministry of Environmental Protection have now issued guidelines designed to protect the environment).

87. *See* Hirsch, *supra* note 11; Shinn, *supra* note 56.

88. G.J. Rossouw et al., *Africans' Perceptions of Chinese Business in Africa: A Survey*, 2014 ETHICS INST. S. AFR. 1, 32.

89. *Id.* at 19, 22, 24, 27–28.

90. *Id.* at 27.

91. Guanyu Zhongyang Qiye Lüxing Shehui Zeren de Zhidao Yijian (关于中央企业履行社会责任的指导意见) [*Guidelines to the State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities*]

Chinese SOEs and asks SOEs to take measures for "[c]onstantly improving ability of making sustainable profits."[92] Social responsibility is defined broadly as product safety, resource conservation, technological innovation, employee rights, and public welfare.[93] SOEs are asked to establish a communication mechanism to disclose CSR activities and engage stakeholders.[94]

In March 2009, MOFCOM and the State Forestry Administration jointly published the Guide on Sustainable Overseas Forests Management and Utilization by Chinese Enterprises.[95] In February 2013, MOFCOM and MEP also jointly published the Environmental Protection Guide for Outbound Investment and Cooperation.[96] These documents require Chinese enterprises not only to abide by the forestry and environmental protection laws of the country in which they are doing business, but also to conduct environmental assessments and create an environmental management plan.[97] Chinese enterprises are encouraged to engage in green procurement, recycling, and local community activities.[98]

In addition, Chinese business associations of various sectors have issued or are working on CSR guidelines for the outbound investments in their sectors.[99] In September 2012, the China International Contractors Association released the Guide on Social Responsibility for Chinese International Contractors to "establish a benchmark of social responsibility" for construction firms and to encourage them to operate overseas contracting projects in a more responsible way.[100] Regarding environmental protection, the guide gives instructions on four aspects: environmental management, resource saving, waste and emission reduction, and ecological protection.[101] In October 2014, the China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters issued the Guidelines for Social Responsibility in Outbound Mining Investments.[102] The guidelines acknowledge that mining may have a significant impact on the

(promulgated by St.-owned Assets Supervision & Admin. Commission St. Council, Jan. 04, 2008) [hereinafter *Corporate Social Responsibilities*].

92. *Id.* ¶¶ 1-4.

93. *See id.* ¶¶ 10-15.

94. *Id.* ¶ 18.

95. *Forests Management and Utilization*, *supra* note 80.

96. Duiwai Touzi Hezuo Huanjing Baohu Zhinan (对外投资合作环境保护指南) [*Guideline for Environmental Protection in Foreign Investment and Cooperation*] (promulgated by the Ministry of Com. & the Ministry of Envtl. Prot., Feb. 18, 2013, effective Feb. 18, 2013) [hereinafter *Environmental Protection in Foreign Investment*], http://english.mofcom.gov.cn/article/policyrelease/bbb/201303/20130300043226.shtml.

97. *See id.* ¶ 11; *Forests Management and Utilization*, *supra* note 80, ¶¶ 3.3, 4.2.1, 5.3.5.

98. *See Environmental Protection in Foreign Investment*, *supra* note 96, ¶¶ 11, 15; *Forests Management and Utilization*, *supra* note 80, ¶¶ 5.2.2-5.2.3, 6.2.1-6.2.4.

99. *See Environmental Protection in Foreign Investment*, *supra* note 96, ¶¶ 11, 15.

100. China Int'l Contractors Ass'n, Guide on Social Responsibility for Chinese International Contractors 1 (2010).

101. *Id.* at 13-14.

102. China Chamber Com. Metals, Mins. & Chemicals Importers & Exporters, Guidelines for Social Responsibility in Outbound Mining Investments 28 (2014) [hereinafter Social Responsibility in Outbound Mining], http://www.srz.com/files/upload/

environment and require Chinese firms to develop appropriate plans and conduct regular assessments.[103]

Though these documents cover a wide range of CSR topics, notably, these Chinese texts are "Guides" or "Guidelines" rather than laws and regulations.[104] Therefore, they operate more as suggestions and lack the binding force that laws have. Language-wise, these guidelines rarely employ the imperative "shall" and instead often use the term "encourage" for environmental and social-protection actions.[105] All the guidelines emphasize that Chinese businesses should respect and abide by local laws in the country of investment. Consequently, the guidelines are written in rather general terms, with no specification for investment types or risk levels of investments.[106] The guidelines presume that companies will find specific regulations in their host countries and decide their behaviors correspondingly.

Yet, this general orientation has been problematic in the African context. As noted earlier, African countries' environmental regulations are not always well established.[107] Indeed, some foreign investors can make use of loopholes in legislation and administration to lower environmental treatment standards "legally."[108] Under such circumstances, the principle of abiding by local regulations may sound like empty words.

Moreover, Chinese firms on average have limited knowledge of local laws. As Weiqian Yang, a Chinese lawyer in Ghana, said, "Chinese companies are not used to looking into laws to find their behavior standards. They believe that money is the lubricant which can get everything done."[109] To some extent, this is a continuation of common business behavior in China, where connections with officials are often more important than laws. In Yang's opinion, Chinese managers only vaguely knew the local regulations, and few of them had a precise understanding of the legal system and its requirements.[110] One reason for this situation is the lack of Chinese legal professionals working in Africa.[111] Chinese investors are impeded by an entrepreneurial culture that considers money rather than laws and keeps them from carefully studying and obeying local regulations.

Conflict_Minerals_Resource_Center/CCCMC_Guidelines_for_Social_Responsibility_in_Outbound_Mining_Operations_English_Version.pdf.

103. *Id.* at 29.

104. *See* Shinn, *supra* note 56; Leung, *supra* note 86.

105. *See, e.g.*, *Forests Management and Utilization*, *supra* note 80; *Corporate Social Responsibilities*, *supra* note 91; *Environmental Protection in Foreign Investment*, *supra* note 96.

106. *See, e.g.*, *Environmental Protection in Foreign Investment*, *supra* note 96.

107. *See, e.g.*, Negusu Aklilu, *Greening Africa-China Relations: African Agents Punching Below their Weight?*, 2 J. China & Int'l Rel. 26, 26 (2014).

108. *See* China Council for Int'l Coop. on Env't & Dev., Investment, Trade, and Environment 326, 328 (2011), http://www.cciced.net/encciced/policyresearch/report/201205/P020120529369994285106.pdf.

109. Yang, *supra* note 70.

110. *Id.*

111. *Id.*

In spite of the practical difficulty of applying these guidelines to Africa's reality, the promulgation of the guidelines did demonstrate the Chinese government's and the industry's proactive attitude regarding socio-environmental impact, with a particular emphasis on environmental issues. Not only do all the guidelines mention environmental responsibility, but as described above, two major documents are dedicated to environmental protection.[112] As Radavoi and Bian observed, the Chinese government tends to detach environmental issues from those of workers' or human rights, because transnational regulations of environmental practices are less controversial politically and are perceived to be more feasible to implement.[113] The release of five guidelines within seven years was a promising start for China to regulate its extraterritorial corporations. Challenges in implementation, however, show that mere guidelines from the Chinese government are not sufficient. Putting effective changes into practice requires more actions and more stakeholders.

Apart from the government, Chinese banks have played—and are playing—an important role in influencing companies' overseas behaviors. Many Chinese banks now have clear guidance regarding social and environment assessment when they give loans.[114] The Export-Import Bank of China (China Exim Bank) and the China Development Bank, the two most important Chinese lenders to Africa-destined investments, require all project developers to complete a social and environmental impact assessment before loan approval.[115] The China Exim Bank also hires third-party consultants, often Western companies, to evaluate social and environmental impacts before loan approval.[116] Additionally, the China Exim Bank, the China Development Bank, the China Industrial and Commercial Bank, and the Bank of China have adopted the Equator Principles on green credit policies, vetoing projects that do not pass environmental assessments.[117]

112. *See* SOCIAL RESPONSIBILITY IN OUTBOUND MINING, *supra* note 102, § 2.7; *Forests Management and Utilization*, *supra* note 80, § 5.

113. *See* Ciprian N. Radavoi & Yongmin Bian, *Enhancing the Accountability of Transnational Corporations: The Case for 'Decoupling' Environmental Issues*, 16 ENVTL. L. REV. 168, 168, 170–72 (2014).

114. *See*, *e.g.*, Luse Xindai Zhiyin (绿色信贷指引) [*Green Credit Guidelines*] (promulgated by the China Banking Reg. Comm'n Feb. 24, 2012), http://www.cbrc.gov.cn/EngdocView.do?docID=3CE646AB629B46B9B533B1D8D9FF8C4A.

115. *See Tightening EIA To Promote Multilateral Win-Win Outcomes—CDB's "Green Credit" Goes to the World*, CHINA DEV. BANK (Aug. 7, 2013), http://www.cdb.com.cn/english/NewsInfo.asp?NewsId=4715; *Strictly Apply Lending Checks to Meet Green Lending Standards*, CHINA EXPORT-IMPORT BANK (Mar. 13, 2014), http://english.eximbank.gov.cn/tm/en-TCN/index_655_24344.html.

116. *See* Zhonguo Jinchukou Yinhang Daikuan Xiangmu Huangjing yu Shehui Pingjia Zhidao Yijian (中国进出口银行贷款项目环境与社会评价指导意见) [*Guidelines for Environmental and Social Impact Assessments of the China Export and Import Bank's (China EXIM Bank) Loan Projects*] (promulgated by The Export-Import Bank of China, Aug. 28, 2007, effective Aug. 28, 2007) THE EXPORT-IMPORT BANK OF CHINA, Aug. 28, 2007, *translated in* Issuance Notice of the GUIDELINES FOR ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENTS OF THE CHINA EXPORT AND IMPORT BANK'S (CHINA EXIM BANK) LOAN PROJECTS (Int'l Rivers ed., 2007).

117. *See* ADINA MATISOFF, MICHELLE CHAN & FRIENDS OF THE EARTH-US, THE GREEN EVOLUTION: ENVIRONMENTAL POLICIES AND PRACTICE IN CHINA'S BANKING SECTOR 18 (2008).

In 2008, the China Exim Bank suspended funding for an iron mining and infrastructure construction project in the Belinga region of Gabon.[118] According to the Gabonese government, the China Exim Bank required the constructor of the project, a Chinese state-owned company, to conduct an Environmental Impact Assessment (EIA) conforming to international standards after the bank received a protest letter from a local NGO.[119] This case provided evidence for the effectiveness of banks in overseeing and monitoring the overseas behaviors of Chinese firms.

Certification by international standards also helps to improve environmental practices. Over one hundred thousand Chinese enterprises have attained certification with the International Organization for Standardization (ISO) 14001 standard, which signifies that the enterprise has created an effective environmental management system.[120] This certification also signals that these Chinese companies fulfill international environmental best practices and consider environmental conservation even when they operate overseas. In the words of a former SOE executive, Chinese firms no longer have fundamental differences from Western companies regarding recognition of international criteria for environmental sustainability. Currently, the main problem is implementation and practice.[121]

III. Environmental and Developmental Responsibility from the Chinese Perspective

Despite the recent movement towards convergence with international norms, China still has fundamental differences in how it views environmental issues. This core philosophical position drives part of the reason for environmental disputes about Chinese investments in Africa. These disputes ought to be separated from non-compliance with environmental regulation, because they stem out of an agreed criterion and touch on principles that remain controversial.

Many of the controversies concentrate on infrastructure construction. Chinese firms are frequently criticized for helping African countries build dams and highways, which may have great impact on African ecosystems.[122] Sudan's Merowe dam on the Nile River is a representative case for such controversies. Sinohydro and China International Water and Electric Corporation were contracted to build the dam in 2003, and the China Exim Bank was the main financier.[123] The dam began operations in 2010.[124] It was the longest dam in the world at the time of its construction and was

118. *See* Oxfam Hong Kong, Understanding China's Overseas Foreign Direct Investment: A Mapping of Chinese Laws and Stakeholders 31-32 (2012), http://www.oxfam.org.hk/filemgr/2533/1367136257.pdf.

119. *See id.*

120. *See* Arthur P.J. Mol, *Environmental Governance Through Information: China and Vietnam*, 30 Sing. J. Tropical Geography 114, 121 (2009).

121. *See* Arthur P.J. Mol, *China's Ascent and Africa's Environment*, 21 Global Envtl. Change 785, 791 (2011).

122. *See, e.g.*, Shinn, *supra* note 56.

123. *See* Bosshard, *supra* note 20.

expected to double Sudan's power capacity once it came online.[125] Although Sudanese authorities had conducted and approved an EIA, a few international NGOs and international institutions (including the United Nations Environmental Programme) insisted that the EIA was sub-standard and did not sufficiently consider downstream impacts.[126] Moreover, the Sudanese government's violent resettlement of inhabitants from the dam site attracted local and international attention. In this context, a few organizations accused Chinese enterprises of ignoring socio-environmental consequences in implementing this project.[127]

Interestingly, the Chinese government and the firms involved also emphasized environmental preservation in their response to this criticism, though with a different focus. While international civil society highlighted potential environmental detriment and forced relocation, the spokeswoman for the Chinese Ministry of Foreign Affairs made clear:

> Hydraulic and hydropower facilities are infrastructure projects which are of general interest for African countries. They are also critical for the long-term economic development of African countries. In the related cooperation, China attaches great importance to local people's livelihood, to the environmental impact which may be caused by the projects. Strict environmental assessments and environmental standards are implemented. China has always required its companies to comply with local laws and regulations in the course of operation in Africa.[128]

A Chinese project manager said that Chinese contractors and the Sudanese government had invested additional amounts to treat carefully all possible points of waste discharges so that hazardous materials would not pollute the Nile River.[129] He reported that construction waste, plastic waste, and organic waste were classified and handled separately.[130] In order to counter criticism from environmental activists, the firms adopted high-level European standards in a country where this was far from the

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124. *See President Al-Bashir Launches Operation of All Units of Merowe Dam*, MEROWE DAM PROJECT (Apr. 1, 2010), http://www.merowedam.gov.sd/en/admin-en/newspublish/home.viewdetails.php?news_id=173.

125. *See* The Allard K. Lowenstein International Hum. Rts. Clinic Yale L. Sch. et al., An Analysis of Select Companies' Operations in Sudan: A Resource for Divestment 15 (2005).

126. *See* CRISTIAN TEODORU ET AL., INDEPENDENT REVIEW OF THE ENVIRONMENTAL IMPACT ASSESSMENT FOR THE MEROWE DAM PROJECT 7, 9 (Mar. 23, 2006), http://www.novaquatis.eawag.ch/media/20060323/Independent-Review-20060323.pdf; UNEP, SUDAN POST-CONFLICT ENVIRONMENTAL ASSESSMENT 226-28 (2007).

127. *See, e.g.*, Jim Giles, *Tide of Censure for African Dams*, 440 NATURE 393, 393-94 (2006).

128. *See Waijiaobu Fandui Guanyu Zhongfang zai Fei Chengjian Daba Weixie Huanbao de Zhize* (外交部反对关于中方在非承建大坝威胁环保的职责), CHINANEWS (May 15, 2007), http://www.chinanews.com/gn/news/2007/05-15/935747.shtml.

129. *See* Yu Honghai (于洪海), & Fu Guohua (傅国华), *Zhonguo Shuidian Chengjian de Shijie Zuichang Shuiba Quanbu Jungong* (中国水电承建的世界最长水坝全部竣工), CHINA ENERGY NEWS (Apr. 19, 2010), http://paper.people.com.cn/zgnyb/html/2010-04/19/content_494270.htm.

130. *See id.*

norm.[131]

Here, we can see that the builders of the Merowe dam, like the opponents of the project, were aware of environmental protection too. Yet the parties had divergent perspectives and evaluation criteria. One party, believing in the fundamental good of the project, stressed the importance of the dam for the socio-economic development of the local community and tried to limit pollution caused by the dam's construction. The other side wanted to suspend the "mega-project" completely, arguing that it would seriously impact the local ecosystem and the original inhabitants' way of life. In fact, similar disputes about dam construction can be found not only in Africa, but also around the world in modern times.[132] In the early twentieth century, the technological advances for constructing large hydropower plants drove a wave of enthusiasm to build mega-dams in Europe and America.[133] The Grande Dixence Dam in Switzerland, the Hoover Dam in the United States, and the Tennessee Valley Authority in the United States were all celebrated as iconic projects during a time of rapid industrialization, as they provided much-needed power, controlled floods, and facilitated irrigation.[134] Since the 1960s, however, large-scale dams have faced rising criticism in the West.[135] Main objections have included: (1) large construction projects change natural water flows and affect life cycles of fish and other species; (2) dams may increase sediment, accelerate accumulation of toxic materials, and degrade water quality; (3) large numbers of inhabitants need to be resettled during construction, and social costs may be very high; and (4) the gigantic size and complicated processes of such projects are accompanied by huge risk, and many megaprojects did not realize planned benefits in historic retrospect.[136]

Consequently, the construction of large hydropower plants almost halted in Western countries after the 1970s.[137] Instead, the trend there shifted towards building small-scale hydraulic projects.[138] Yet the interest for mega-dams did not diminish in developing countries in Asia, Africa, and Latin America. China's Three Gorges, Brazil and Paraguay's Itaipu, Ethiopia's Tekeze, Sudan's Merowe, and the proposed Grand Inga on the Congo River all strive to be bigger and taller than what came before.[139] New records in terms of dam size and power generation capacity have been

131. *See id.*

132. *Dams: A Barrage of Criticism,* THE ECONOMIST (Nov. 16, 2000), www.economist .com/node/423621.

133. *Id.*

134. *See* Michael Duchemin, *Water, Power, and Tourism: Hoover Dam and the Making of the New West*, 86 U. CAL. PRESS 60, 60 (2009).

135. *Dams: A Barrage of Criticism*, *supra* note 132.

136. *See, e.g.*, *Dams—blessing and curse?*, WORLD WIDE FUND FOR NATURE (Jan. 30, 2016), http://wwf.panda.org/what_we_do/footprint/water/dams_initiative/dams/; Stephanie Joyce, *Dams—The Advantages and Disadvantages*, ENV'T, HEALTH & SAFETY ONLINE (Feb. 23, 2016), http://www.ehso.com/ehshome/energydams.htm.

137. *See* Joyce, *supra* note 136.

138. *Id.*

139. *Id.*

set again and again.[140] Regarding this phenomenon, environmental activist groups in the West expressed concern and criticism, pointing out various kinds of negative influences on environment and society.[141] By contrast, the defenders of mega-dams believed that large-scale infrastructure facilities are necessary for the development of poorer countries. Biswas and Tortajada from the Third World Centre for Water Management in Mexico wrote:

> There is no doubt that small dams and water-harvesting techniques will undoubtedly help in rural areas and smaller urban areas . . . however, small water structures alone would not be able to resolve the complex water problems of urban areas and major industries where demands for water are extremely high, and are increasing, and where rainfall is scanty and erratic. Large and medium dams will be essential to continue to provide water to meet the escalating needs of a steadily urbanizing world for decades to come. People in the western world will have to realize that . . . . The situation was previously no different in their own countries, where large dams had to be built to satisfy their own water needs. Having completed the necessary construction of large dams in their own countries, they are now opposed to the construction of large dams in the developing world, where societal needs are growing exponentially.[142]

China itself is a predominant supporter for large hydropower projects in the world. By the end of 2005, there were 4,839 large dams whose height exceeded thirty meters in China, accounting for 37.8% of all the large dams in the world.[143] Large hydropower projects were included in the government's strategic Twelfth Five-Year Plan (2011–2015) as a focal area for development.[144] The director of the Chinese Hydropower Administration acknowledged environmental risk related to hydropower plants, but took the position of "taking the lighter one when comparing two evils."[145] This means that not only is hydropower considered less harmful to the environment in comparison to other forms of energy, but also that underdevelopment is more undesirable than environmental change. The Chinese government views industrialization and modernization as necessitating the evil of a nonzero amount of environmental degradation. Sometimes, the environment even needs to be transformed again to counter the

140. *See generally* Neil Ford, *UN Throws Weight Behind Grand Inga*, 310 AFR. BUS. J. 28 (June 2005); Bruce Handler, *Biggest Dam Set in Latin America*, WASH. POST (May 21, 1974); Ahmed Hassan Omer Khartoum, *Merowe Dam Project: The Biggest Economic Accomplishment in Sudan*, SUDAN NEWS AGENCY (June 13, 2013).

141. *See, e.g.*, Ford, *supra* note 140, at 29.

142. Asit K. Biswas & Cecilia Tortajada, *Development and Large Dams: A Global Perspective*, 17 WATER RESOURCES DEV. 9, 12 (2001).

143. Jia Jinsheng (贾金生) et al., *Zhongguo 2008 Shuiku Daba Tongji, Jishu Jinzhan Yu Guanzhu De Wenti Jianlun (中国 2008 水库大坝统计、技术进展与关注的问题简论)*, ZHONGGUO DABA JIEHUI MISHU CHU (中国大坝协会秘书处) (2008), http://www.chincold.org.cn/chincold/upload/news/lin200911254534542.pdf.

144. *Woguo Shuidian Fazhan Shiru Kuaichedao Mubiao Zhizhi 3.5 Yi Qianwa (我国水电发展驶入快车道 目标直指3.5亿千瓦)*, ZHONGGUO NENGYUAN BAO (中国能源报) (Sept. 7, 2011), http://www.nea.gov.cn/2011-09/07/c_131109599.htm.

145. *Id.*

changes caused by global industrialization. As an official of National Energy Administration official explained:

> Because of climate change, the precipitation belt moved northwards . . . this requires construction of hydropower plants which have an adjustment function. Large and medium hydropower stations generally have such a function. Therefore, large and medium hydropower plants should be the focus of construction.[146]

This is a core dilemma of global modernization today. Even when developing countries do nothing, they may still suffer from the environmental impact caused by other countries' industrialization. From this viewpoint, they need technology and large-scale action to balance the environmental changes already unleashed by others.

To be sure, the rapid industrial development of China and other developing countries during recent years has contributed to global climate change.[147] In terms of per capita energy consumption, however, China and other developing countries still lag significantly behind developed Western countries.[148] Per capita electricity consumption in China (3,298 kWh) was only a quarter of that in the United States (13,246 kWh) in 2011, whereas electricity consumption and production per capita in Sudan (143 kWh) is less than two percent of that for an American.[149] In France, Germany, Canada, the United States, and other developed countries, approximately seventy percent of the hydropower resources in their territories have been utilized; but in China, only approximately forty percent of its hydropower potential has been developed; and in Africa, less than fourteen percent of the country's hydropower potential has been tapped.[150] Consequently, developing countries argue that limiting hydropower exploitation will unfairly affect their development opportunities.

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146. *Id.*

147. Jeffrey Ball, *Climate Change Is Now in the Developing World's Hands,* Slate Mag. (Nov. 29, 2013), http://www.slate.com/articles/health_and_science/energy_around_the_world/2013/11/warsaw_climate_talks_developing_countries_will_be_source_of_greenhouse_gas.html

148. *International Energy Statistics: Total Primary Energy Consumption per Capita (Million Btu per Person)*, Energy Info. Admin. (Feb. 23, 2016), http://www.eia.gov/cfapps/ipdbproject/iedindex3.cfm?tid=44&pid=45&aid=2&cid=regions&syid=2005&eyid=2009&unit=QBTU.

149. *World Development Indicators: Power and Communications*, The World Bank (2015), http://wdi.worldbank.org/table/5.11#.

150. *See* Table 2; *World Hydro Potential and Development*, INTPOW Norwegian Renewable Energy Partners (Feb. 23, 2016) (citing Hydropower and Dams, World Atlas, 2009), http://www.intpow.com/index.php?id=487&download=1.

Table 2. Utilization of Hydropower Potential 2008

Country	Hydropower Generation (GWh/year)	Economically Feasible Hydropower potential (GWh/year)	Utilization rate
USA	270000	376000	71.81%
Germany	16975	20000	84.88%
Canada	372000	536000	69.40%
France	68600	98000	70.00%
China	684000	1753000	39.02%
Sudan	4333	19000	22.81%
DR Congo	7303	145000	5.04%

China's own development needs and experiences make it sympathetic to the needs of other developing countries. Consequently, mega-projects which have not received funding from Western and multilateral institutions often get approved by Chinese financers.[151] In addition, with their competitive advantage from thousands of construction projects in China in the past generation, Chinese firms have become the main contractors for dam projects in the developing world.[152] As of August 2012, Chinese firms were involved in the construction or financing of 308 dams in seventy countries.[153]

As we see from the Merowe dam case, it is too simplistic of an understanding to charge that environmental issues are simply neglected by the advocates for large projects. Instead, they demand that the development needs of poorer countries should be sufficiently considered along with environmental impacts.[154] As a South African engineer puts it:

> We always forget that the Environmental Impact Assessment was originally supposed to be an environmental and social impact assessment. We've seen that the social element has largely been lost. You never hear a substantive argument about the livelihood benefits of a project, you always hear about the environmental benefits and impacts . . . [a]nd my concern is that we need to rebalance the discussion to ensure that the loud voices of environmental advocates are heard, but are balanced by equally loud advocates for social equity, which is very important as well as for economic growth, which is a critical enabler of social development. And I think we've lost that.[155]

151. *See China's Global Role in Dam Building*, INT'L RIVERS (Nov. 8, 2015), https://www.internationalrivers.org/campaigns/china-s-global-role-in-dam-building.

152. *See id.*

153. INT'L RIVERS, THE NEW GREAT WALLS: A GUIDE TO CHINA'S OVERSEAS DAM INDUSTRY 4 (2012), http://www.internationalrivers.org/files/attached-files/intlrivers_newgreatwalls_2012_0.pdf

154. *See* Olivia Boyd, *China Brings Dams Back to Africa*, CHINADIALOGUE (Oct. 7, 2012), https://www.chinadialogue.net/article/show/single/en/5032-China-brings-dams-back-to-Africa.

155. *Id.*

Chinese constructors in Africa represent this balancing viewpoint. Putting emphasis on developmental responsibility, they consider the transformation of the natural environment inevitable in the development process. Notably, developing countries are willing to pay environmental costs not simply "in pursuit of materialism," but rather to achieve social equity—namely to reach a more similar development level with industrialized Western countries.[156] In fact, these countries learned from historical experience that if they do not catch up with other countries' development, then they cannot manage even their own environment, as the global climate has already been changing rapidly—a problem that paradoxically requires resources that are only obtainable through economic development.

This dispute between development responsibility and environmental preservation is set to continue for the coming decades. Various countries' positions are still far from reaching consensus, as they are driven by divergent social, economic, political, and environmental needs. This is not necessarily a bad thing. While emerging countries keep striving for their development rights, this developmentalism mindset also needs a balancing voice to modulate the speed and severity of environmental change. Overall, it is important to recognize that both views are valid if balanced development is to be achieved. Of course, this important debate should not be conflated with violations against existing environmental norms and standards. As noted in the first two Parts, a number of Chinese firms in Africa did not abide by local or Chinese regulations.[157] Due to lack of international juridical coordination, even existing uncontroversial environmental regulations have not been appropriately implemented.[158] This situation deserves serious thought and rapid action. In the following Parts, a comparative study of how other countries regulate their private sectors' environmental practices overseas will be made. Then we will offer some suggestions for how the environmental impact of Chinese investments in Africa may be ameliorated.

IV. U.S. and European Regulation of Environmental Impacts Overseas

When it comes to regulation of overseas business, the United States and major European countries have a range of standards depending on the type of offense. On one end of the spectrum is corruption, which is strictly regulated.[159] Forty-one industrialized countries have adopted the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, along with national regulations within each signatory country to uphold the Convention.[160] Two of the most well-known regulations are the U.S. Foreign Corrupt Practices Act of 1977 and

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156. *See id.*
157. *See, e.g.*, Shanyuan, *supra* note 45; Hirsch, *supra* note 11.
158. China Council for Int'l Coop. on Env't & Dev., *supra* note 108.
159. Org. for Econ. Coop. & Dev. [OECD], *Convention on Combating Bribery of Foreign Public Officials in International Business Transactions* (Nov. 21, 1997), http://www.oecd.org/daf/anti-bribery/ConvCombatBribery_ENG.pdf.
160. *Id.*

the U.K. Bribery Act of 2010.[161] The enforcement of these laws has effectively reduced the corruption-related negative environmental practices of Western multinational companies in foreign countries.[162]

Yet, when it comes to environmental practice specifically and other kinds of corporate social responsibilities in foreign countries, Western regulations are much more lax. Although international treaties and norms such as the 1997 Kyoto Protocol and the 2002 World Earth Summit influenced the creation and implementation of environmental policies in the United States and Europe, U.S. and European domestic laws do not strictly regulate the environmental impact of their companies that go abroad.[163] In fact, similar to some of the examples of Chinese companies cited above, literature suggests that one motivation for Western companies going abroad is the lack of regulation or applicability of domestic laws abroad.[164] Although the Alien Tort Claims Act states, "[t]he district courts shall have original jurisdiction of any civil action by an alien for a tort only, committed in violation of the law of nations or a treaty of the United States," hope of strong regulations against overseas investments was set back when the U.S. Supreme Court in 2013 unanimously rejected corporate liability under the Act for certain extraterritorial violations of international human rights norms.[165]

Therefore, similar to Chinese guidelines for overseas investments, Western regulation of overseas investment primarily depends on voluntary mechanisms. One example is the OECD Guidelines for Multinational Enterprises, one of the most comprehensive international agreements in this space.[166] The OECD Guidelines is a set of "recommendations from governments to multinational enterprises operating in or from countries that are signatory to the Declaration on International Investment and Multinational Enterprises including the Guidelines."[167] They cover labor rights, human rights, environment, information disclosure, bribery, con-

161. *See* ARNOLD & PORTER, LLP, THE EXTRATERRITORIAL REACH OF THE FCPA AND THE UK BRIBERY ACT: IMPLICATIONS FOR INTERNATIONAL BUSINESS 1 (Mar. 2012), http://www.arnoldporter.com/resources/documents/Advisory%20Extraterritorial_Reach_FCPA_and_UK_Bribery%20Act_Implications_International_Business.pdf.

162. *See id.*

163. *See* Adam B. Jaffe et al., *Environmental Regulation and the Competitiveness of U.S. Manufacturing: What Does the Evidence Tell Us?*, 33 J. ECON. LIT. 132, 133 (1995). *See generally* JEFFREY FRANKEL, ENVIRONMENTAL EFFECTS OF INTERNATIONAL TRADE 29-30 (2009); NICK MABEY & RICHARD MCNALLY, FOREIGN DIRECT INVESTMENT AND THE ENVIRONMENT: FROM POLLUTION HAVENS TO SUSTAINABLE DEVELOPMENT 43-44 (1999); R. Daniel Kelemen & David Vogel, *Trading Places: The US and EU in International Environmental Politics*, 43 COMP. POL. STUD. 427, 427-56 (2010).

164. *See* Rema Hanna, *US Environmental Regulation and FDI: Evidence from a Panel of US-Based Multinational Firms,* 2 AM. ECON. J. 158, 162-63 (2010).

165. *See* Kiobel v. Royal Dutch Petroleum Co., 133 S. Ct. 1659, 1669 (2013); Alien Tort Claims Act, 28 U.S.C. § 1350 (1789).

166. ORG. FOR ECON. COOP. & DEV., *About the OECD Guidelines for Multinational Enterprises* (Feb. 24, 2016), https://mneguidelines.oecd.org/about.

167. OECD WATCH, *The OECD Guidelines for Multinational Enterprises* (Feb. 24, 2016), http://oecdwatch.org/oecd-guidelines.

sumer interests, competition, taxation, and intellectual property rights.[168] Because they are voluntary principles and standards for responsible business conduct, they are not legally binding on countries or companies.[169] They are, however, consistent with applicable laws and internationally recognized standards, so the OECD and signatory governments are supposed to ensure that they are implemented and observed via national laws and international commitments.[170] Unfortunately, monitoring and compliance does not automatically follow. Therefore, the Guidelines have become both a dialogue between countries and a way to measure the behavior of companies, but much work remains to be done before full implementation can be said to be achieved.

Civil society and media play a major role in influencing Western companies' behavior overseas. Often, the voices of social and environmental advocacy that target large multinational corporations are so loud that corporations rely on highly paid public relations agencies as well as in-house public relations professionals to deflect the criticisms of NGOs.[171] NGOs often sponsor their own scientific research, making them much more credible in the eyes of the public.[172] In addition, they often cultivate linkages to divestiture movements—like divestiture campaigns targeted to multiple university endowments during apartheid South Africa—creating linkages to direct financiers of companies.[173] Media linkage is also critical, as research divestiture movements garner headlines. Also newsworthy are instances of high-profile individuals and celebrities getting involved. When Richard Branson, Archbishop Desmond Tutu, and U.S. financier Warren Buffett all condemned oil exploration in the Democratic Republic of the Congo, the public started to pay attention and hold companies

168. *Id.*

169. *Id.*

170. *Id.*

171. *See* Bindu Sharma, Contextualising CSR in Asia: Corporate Social Responsibility in Asian Economies and the Drivers that Influence Its Practice 1, 14–16 (Apr. 2013), http://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=1004&context=lien_reports; Kristie Byrum, *The Role of the Public Relations Professional in Corporate Social Responsibility Communication*, CSRwire (Jul. 13, 2015), http://www.csrwire.com/blog/posts/1599-the-role-of-the-public-relations-professional-in-corporate-social-responsibility-communication.

172. *See* Dagmar Lohan, *Assessing the Mechanisms for the Input of Scientific Information into the UNFCCC*, 17 Colo. J. Int'l Envtl. L. & Pol'y 249, 284 (2006); Julie Teel, *Rapporteur's Summary of the Deliberative Forum: Have NGOs Distorted or Illuminated the Benefits and Hazards of Genetically Modified Organisms?*, 13 Colo J. Int'l Envtl. L. & Pol'y 137, 148 (2002).

173. *See* Shareen Hertel, *The Paradox of Partnership: Assessing New Forms of NGO Advocacy on Labor Rights*, 24 J. Ethics & Int'l. Aff. 171, 171 (2010); Jonathan P. Doh & Nicolas M. Dahan, Presentation at the European Group for Organizational Studies Summer Workshop 2010: Social Movements and Social Networks: An Evolutionary Perspective on Contemporary U.S. Student Advocacy Campaigns 10 (uploaded Nov. 10, 2014), http://www.researchgate.net/publication/267226255_SOCIAL_MOVEMENTS_AND_SOCIAL_NETWORKS_AN_EVOLUTIONARY_PERSPECTIVE_ON_CONTEMPORARY_U.S._STUDENT_ADVOCACY_CAMPAIGNS.

accountable.[174]

Arguably, companies' biggest concern is the impact of reputational damage on their business prospects. If civil society and the media raise awareness of company practices, then the market through the mechanism of consumer choice, rather than the heavy hand of the government, influences the behavior of companies.[175] Companies in the West come under close scrutiny by shareholders and consumers in their own countries.[176] In contexts of robust civil society and media freedom, negative environmental consequences can be widely reported and cause backlash from the public, who are also shareholders and customers. Therefore, the fear of market consequences motivates companies to be cautious with environmental impact.

This logic, however, is essentially utilitarian, implying that environmental standards may be compromised if market gains outweigh the cost of negative opinion from consumers and shareholders. For example, a place like Equatorial Guinea does not rate highly in terms of stability, transparency, and regulation.[177] But companies like Marathon Oil still operate there because they think they get more profit out of the investment in oil than they lose through public criticism.[178] This is an important shift in the process by which public goods are valued, as cross-national business increasingly results in the removal of questions of the value of public goods from political arenas, to the arena of cost-benefit calculations by individual firms.

To summarize, although the market is the ultimate constraining factor, civil society and the media are often decisive in influencing markets and public perception in the West. NGOs work within the OECD framework to try to pressure companies to behave responsibly for the environment. Media reinforces these ideas, and companies often respond in order to maintain their reputation, customer base, and financing. By contrast, civil society and media in China are strongly controlled by the government and have far less power in forging public opinion. The model of checks and balances by civil society and markets works far less reliably in China. How can people build a mechanism that fits China's unique context?

V. Concluding Remarks and the Way Forward

So far, the characteristics of Chinese firms' environmental practices in Africa, as well as related measures taken by the Chinese government and banks have been reviewed. Also, comparisons to perspectives and regulat-

174. John Vidal, *Soco Halts Oil Exploration in Africa's Virunga National Park*, The Guardian (June 11, 2014), http://www.theguardian.com/environment/2014/jun/11/soco-oil-virunga-national-park-congo-wwf.

175. *See* Marylyn Carrigan Ahmad Attalla, *The Myth of the Ethical Consumer—Do Ethics Matter in Purchase Behaviour?*, 18 J. Consumer Mktg. 560, 574 (2001).

176. *Id.* at 563-64.

177. Interview with Paige Snider, Commercial Official, U.S. Embassy, in Beijing, China (Oct. 2014).

178. *Id.*

ing mechanisms in Western countries were made. As a large number of Chinese investments arrive in Africa within a short period of time, they greatly transform the continent's natural and social landscape. It is true that not-so-stringent environmental regulations in Africa have attracted firms from higher polluting sectors of China. Indeed, a few unscrupulous Chinese investors lowered their environmental standards in Africa when they found loopholes in the host countries' regulations. Others may cause unexpected socio-environmental consequences because of lack of local knowledge or experience.

As Chinese investments in Africa continue growing rapidly, regulatory systems ought to be enhanced correspondingly. To be sure, improving the capacity of African authorities, which have the appropriate juridical sovereignty, is pivotal for any kind of regulatory enhancement. Efforts from the Chinese side, however, are likewise important to influence the behaviors of China's multi-national companies. Concerned with reputation damage caused by mounting environmental controversies, the Chinese government, banks, and business associations have actually taken steps to raise the environmental awareness of their companies in Africa, give guidance on environmental best practices, and monitor the environmental impacts of projects.

Chinese efforts to improve environmental practices are borrowed to a large extent from international standards. As we have pointed out, major banks have adopted green credit policies similar to the Equator Principles, and hundreds of thousands of companies have passed ISO standards of environmental management. In assessing potential avenues for future progress, however, four factors are important to highlight. First, China has a fundamentally different view on the necessity of environmental change in the process of economic development. Drawing from its own experience, China realizes that fast industrial development must be accompanied by large-scale social and environmental changes. The change is in fact not a choice of one or several countries, but a necessary outcome of industrialization, as seen in developed countries. Nonetheless, today, developed countries put more emphasis on preservation of the environment, while developing countries stress equal rights of development. Both sides are conscious of environmental protection, but their relative priorities differ. These differing views reflect the different development stages of these countries. Today, industrial development and modernization as well as environmental conservation in the age of climate change is a must for every country, developed or developing. The dilemma of economic development and environmental protection in the modern world is that industries and modern society necessarily impact the environment. For poor countries, however, environmental conservation also requires commanding resources that are only obtained through wealth creation. Clearly, a balance between development and environment is required. Yet countries often legitimately diverge on where they believe this balance point to be. China, being a developing country itself, calls for more space for development. This position will probably remain as a starting point for China's environmental policy in the upcoming decades. So although there has been a convergence of Chinese policy in recent years towards Western norms, full convergence is not likely to occur.

Second, although full convergence is unlikely, given the fundamentally different beliefs about the relative value of development versus environment, the Chinese government is more willing to accept international standards on environmental issues than human rights. Interestingly, guidelines promulgated by the Chinese government deal almost exclusively with environmental issues. One possible explanation is that environmental damage is easily visible, whereas evaluation of human rights is much more subjective. The gap between China and the West is huge on conception and practice of human rights, but the gap is considerably smaller when it comes to environmental protection. This partially accounts for recent developments such as the U.S.-China bilateral agreement to work on environmental issues. For organizations engaging with China on social responsibility issues, this preference is important to bear in mind when choosing appropriate strategies.

Third, China's unique social structure necessitates a different regulating mechanism on its overseas investments than that of Western countries. Civil society and the media mainly monitor multinational firms in the West. Fear of being penalized in their major markets at home by shareholders and by customers prevents them from unscrupulously exploiting the environment in foreign countries. Yet in China, neither a strong civil society nor an independent media exists, and public awareness about overseas environments is not high enough to influence the domestic market. In addition, numerous Chinese firms are small private enterprises operating almost solely in Africa. They are not constrained by the above-mentioned mechanism like the Western countries.

Nonetheless, international NGOs and media have been indirectly influencing Chinese firms' behaviors in Africa via the Chinese government, as China becomes more and more concerned about negative economic and political consequences caused by reputational damage due to its firms' poor environmental practices in Africa.[179] The drafting process of guidelines by various ministries and business associations during recent years was significantly shaped by environmental NGOs.[180] These guidelines can also serve to support civil society efforts. As a member of a Beijing-based NGO stated, "[t]hough [the guidelines] do not have binding

179. *See* Bus. for Soc. Responsibility, China's Rising Influence in Africa: Is There Room for CSR? 8–9 (2008), http://www.bsr.org/reports/BSR_China_Rising_Influence_in_Africa.pdf; Ciprian N. Radavoi & Yongmin Bian, *Why China Should Regulate Its Overseas Investors' Environmental Behavior*, 5 Beijing L. Rev. 22, 25 (2014); Austin Strange et al., *China's Development Finance to Africa: A Media-Based Approach to Data Collection* 10 (Ctr. for Global Dev., Working Paper No. 323, 2013), http://www10.iadb.org/intal/intalcdi/PE/2013/12317.pdf.

180. *See* David H. Shinn, *China in Africa: Environmental Implications and the Law*, Int'l Pol'y Dig. (Oct. 25, 2015), http://www.internationalpolicydigest.org/2015/10/25/china-in-africa-environmental-implications-and-the-law. *See, e.g.*, Bosshard, *supra* note 20, at 8.

power, they show the attitudes of the Chinese government. NGOs and people in other countries can use these guidelines in their negotiation with Chinese firms."[181]

Last but not least, Chinese firms are much more inclined to pay bribes rather than use laws to settle environmental issues. The Bribe Payers Index ranks China as the second highest, only below Russia, on the likelihood that their multinational businesses will use bribes when operating abroad.[182] Rampant bribery in Africa causes negligence in EIA and social impact assessment processes, as well as inferior quality of construction projects.[183] Anti-corruption is a widely accepted standard by the international community. Most Western countries have strict laws in this respect, but China did not sign the Convention on Combating Bribery of Foreign Public Officials.[184] It has gradually, however, realized the self-inflicted damage caused by overseas bribery. Apart from the interruption of normal market order, bribery hurts the Chinese firms themselves by increasing the cost of doing business and making the firms vulnerable to further blackmail. In February 2011, the Eighth Amendment of the Chinese Penalty Law added terms regarding overseas corruption.[185] Although this law has not been implemented with rigor, it prepares the legal grounds for addressing a key issue in Chinese environmental practices in Africa.

In the end, African countries are the ones that have juridical power to regulate directly investments on their soil. Improvement of their legislation and administration will play a decisive role in enhancing environmental protection in Africa. The environmental problems accompanying Chinese investments revealed that African authorities were not entirely prepared for this new trend. These problems are not completely caused by foreigners, but can also be caused by obsolete or incomplete regulations unfitting for modern industries and by the inexperience of the administration vis-à-vis foreign investors. For example, sometimes there are no standards for certain industrial products, and sometimes the EIA process turns into a matter of bribery.

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181. Interview with Ren Peng, Expert, Global Env't Inst., in Thai. (Nov. 2014).

182. *See* DEBORAH HARDOON & FINN HEINRICH, BRIBE PAYERS INDEX 2011 6 (Transparency Int'l, Oct. 2011), http://www.transparency.org/bpi2011/results.

183. See Benjamin Barczewski, *How Well do Environmental Regulations Work in Kenya?: A Case Study of the Thika Highway Improvement Project* 7–9 (Columbia U. Ctr. for Sustainable Urban Dev., Working Paper, 2013), http://csud.ei.columbia.edu/files/2013/06/How-Well-Do-Environmental-Regulations-Work-in-Kenya.pdf. *See generally* HUSSEIN ABAZA ET AL., ENVIRONMENTAL IMPACT ASSESSMENT AND STRATEGIC ENVIRONMENTAL ASSESSMENT: TOWARDS AN INTEGRATED APPROACH (2004), http://www.unep.ch/etu/publications/textONUbr.pdf.

184. *See OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions: Ratification Status as of 21 May 2014*, ORG. FOR ECON. COOP. & DEV. (Feb. 24, 2016), http://www.oecd.org/daf/anti-bribery/WGBRatificationStatus.pdf.

185. *See* FRESHFIELDS BRUCKHAUS DERINGER, CHINA'S TIGHTENING LAW ON BRIBERY OF OFFICIALS 1, 1–2 (Mar. 2011), http://www.freshfields.com/uploadedFiles/SiteWide/Knowledge/China's%20tightening%20law%20on%20bribery%20of%20officials.pdf.

Beyond these four factors, this Article overall highlights the fact that there are multiple roads to a better future. In terms of responsible stewardship for the environment, the cases presented here support the framework that we started with: there are at least three major avenues towards positive change, and each of these three avenues can be driven by diverse interests. Which strategy is appropriate and feasible depends on the dynamics of industry, company ownership, and country context. It is time to move beyond blanket statements about Chinese behavior in general in Africa and towards more nuanced understandings of the differential impact of Chinese firms and the motivations behind their behaviors.

As investments from China, Asia, and other regions from the global South are set to continue growing rapidly, they will impact Africa's environment and society even more extensively and more powerfully. Africa needs these investments for economic growth, but they also require corresponding improvement of environmental standards. Particularly as some higher polluting industries relocate from China to African countries, which nonetheless welcome them for the sake of economy and employment, people must take more stringent measures to avoid environmental disasters. Although it is true that almost every country in the world has had to face undesired environmental impacts in its history of industrialization, hopefully African countries can do better in their turn. Although the pristine nature in Africa will probably change, hopefully African nations will not repeat the mistakes of other regions that have led to the dead waters of Lake Michigan in the United States at the end of the nineteenth century or the Beijing smog of today. Perhaps a prosperous continent with a livable environment will be a realistic target to achieve in the coming decades.