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Chinese firms and adherence to global Environmental, Social and Governance (ESG) standards in developing countries: Is there potential to create common ground?

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Chinese Firms and Adherence to Global Environmental, Social and Governance (ESG) Standards in Developing Countries: Is there Potential to Create Common Ground?

Mike Morris



Chinese firms and adherence to global Environmental, Social and Governance (ESG) standards in developing countries: is there potential to create common ground?

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Abstract

This paper focuses on analysing how Chinese firms operate in Latin America, Asia and Africa in regard to ESG (environmental, social and governance) standards and sustainability issues. How do they respond to the increasing global value chain requirement to incorporate and maintain ESG standards? Is their space for an alignment between Western development cooperation ESG policies, frameworks, strategies and practices and Chinese political and economic stakeholders in the developing world? The paper uses a variety of case studies covering Chinese firms (disaggregated into SOEs (state-owned enterprises) and large, medium and small private sector firms) operating in various sectors in countries across the developing world. It uses a three dimensional framework to analyse different types of Chinese firms in terms of value chain operations covering many of the ESG standards they are required to meet:

1. *Supply chain relations* (i.e. approach to supporting upgrading of local suppliers);
2. *Internal firm processes* (i.e. approach to local labour, training and upskilling);
3. *Social licence to operate* (i.e. approach to meaningfully engaging with local communities taking account of their social and economic needs).

There are examples of Chinese firms behaving according to the negative type casting that has dominated much of the literature. However, Chinese firms in developing countries are fairly flexible and more willing to adapt to ESG standards than conventionally assumed. There are sufficient instances of Chinese firms in host developing countries showing significant movement to alignment on ESG dimensions. Unlike the industrialised world, these firms are not driven by civil society socio-political pressure within China. China's relationship to ESG has instead been driven by a) geo-political considerations involving the Chinese government's global presence, and b) primarily economic risk considerations of Chinese lead firms operating internationally – risk relating to raising finance and ensuring that business operations in developing countries can avoid major disruption. For many Chinese lead firms operating in the developing world, ESG is increasingly being perceived as a fundamental **risk mitigation tool** assisting them to ensure that they are able to maintain continuous, consistent, and predictable economic operations. These tendencies can only be expected to grow much stronger as the Chinese government adopts more ESG standards within guidelines and regulatory frameworks and enforces compliance on Chinese firms operating abroad. As Chinese firms become more open to ESG compliance, this creates a foundation for potential development cooperation alignment with the Chinese government and Chinese lead firms operating in the developing world.

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Abbreviations

AMAC	Asset Management Association of China
ASEAN	Association of Southeast Asian Nations
BRI	Belt and Road Initiative
CARI	China Africa Research Initiative
CBIRC	China Banking and Insurance Regulatory Commission
CBRC	China Banking and Insurance Regulatory Commission
CDB	China Development Bank
CSO	civil society organisation
CSR	corporate social responsibility
CSRC	China Security Regulatory Commission
EAP	East Asia and Pacific
ECA	Europe and Central Asia
EIA	environmental impact assessment
EITI	Extractive Industries Transparency Initiative
ESG	environmental, social and governance
ESH	environment, safety and health
EU	European Union
EXIM Bank	Export Import Bank
FDI	foreign direct investment
FSC	Forest Stewardship Council
GVC	global value chain
IDS	Institute of Development Studies
IFOAM	International Federation of Organic Agriculture Movements
ILO	International Labour Organization
ISO	International Organization for Standardization
ITC	information and communications technology
JV	joint venture
LAC	Latin America and the Caribbean
M&A	mergers and acquisitions
MENA	Middle East and North Africa
MNC	multinational corporation
MOFCOM	Ministry of Commerce (China)
MSMEs	micro, small and medium sized enterprises
NA	North America
NAFTA	North American Free Trade Agreement
NAFMII	National Association of Financial Market Institutional Investors (China)
NGO	non-governmental organisation

NLD	National League for Democracy (Myanmar)
OECD	Organisation for Economic Co-operation and Development
PBC	People's Bank of China
PMSP	Mining Solidarity with the People (Peru)
RVC	regional value chain
SAR	South Asia region
SASAC	Assets Supervision and Administration Commission (China)
SCSAC	State Council's State-owned Assets Supervision and Administration Commission (China)
SDGs	Sustainable Development Goals
SEZ	special economic zone
SMEs	small and medium sized enterprises
SOE	state-owned enterprise
SSA	Sub Saharan Africa
TCFD	Task Force for Climate-Related Financial Disclosure
TVET	technical and vocational education and training
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
USA	United States of America
USD	United States dollar
WWF	World Wildlife Fund

“... with Chinese firms, water takes the shape of the bottle it is in.” (Deborah Brautigam)

1 Introduction

Integrating developing countries into the global economy through global value chains (GVCs) is a crucial step for economic development. However, over the past decade a new dynamic has emerged requiring both industrialised and developing countries to include sustainability as a critical criterion for full participation in the global economy. Transnational lead firms from the industrialised world have included environmental, social and governance (ESG) requirements in their GVC governance protocols and parameters and driven these down their supply chains. Consequently, developing country supply chains and local suppliers have been increasingly required to meet ESG standards and regulations to successfully gain access to GVC linkages.

China has become an industrial power in the global economy, not only as a global supplier base, but also through the global outward expansion of Chinese firms into the developing world. This raises the question of how Chinese firms in the developing world relate to sustainability issues? How do they respond to the requirement to incorporate and maintain ESG standards? To what extent do they incorporate sustainability standards in their supply chains, their internal operations, and their relationships to local communities? Are they influenced by host country regulatory frameworks? What role is the Chinese government playing in requiring Chinese firms operating elsewhere to incorporate and propagate sustainability standards in their strategic and operational practices? Is there space for an alignment between Western development cooperation ESG policies, frameworks, strategies and practices and Chinese political and economic stakeholders in the developing world?

This paper focuses on understanding and analysing how Chinese firms operate in regard to ESG standards and sustainability issues in developing countries through interrogating the available literature.¹ The paper opens with a broad discussion of China's place in globalisation and the spread of Chinese investment into the developing world. Section 3 discusses GVCs and the rise of ESG standards, identifying three key ESG dimensions to analyse how China generally relates to sustainability issues. It also sets out the changes in the Chinese government's regulatory frameworks as it has increasingly embraced sustainability protocols. This is followed in Section 4 by a discussion of Chinese firms in Latin America, Asia and Africa in terms of ESG issues identified. Section 5 focuses on case studies of specific Chinese firms operating in various developing countries. The paper concludes regarding the dynamics driving ESG adoption in Chinese firms and various recommendations to facilitate further Chinese alignment with ESG criteria.

1 The sections below outlining the key contours of deep globalisation, the rise of global value chains, the dynamics driving them, the role of lead firms and standards (including the rise of ESG) governing them, and the rise of China within globalisation are not intended to be an academic review of the extensive literature. They are simply to provide an informative context for the main aim of this paper to pull together the literature in the public domain on how Chinese firms have related to ESG in the developing world. Hence there is no attempt here, nor is it necessary, to cover the extensive literature on these issues.

2 Globalisation, the rise of global value chains and the rise of China

The Deep Globalisation during the second half of the twentieth century fundamentally transformed the relationship between the industrialised world and developing countries. Instead of treating them as primarily suppliers of raw materials as was the case during the phase of global integration before the 1970s, deep globalisation integrated many developing economies into the global economic order as suppliers of basic manufactured products. Underlying this economic transformation of the global order was the rise of GVCs as large multinational lead firms outsourced, and then offshored, large chunks of their supplier base to low cost suppliers. Some developing countries became integrated into these GVCs as low cost suppliers, first of simple assembly items, but then later as suppliers of more complex manufactured products. Lead firms in the industrialised high income world (the United States, Europe, and Japan) scoured the world for developing economies with sufficient skills and low labour costs to meet their needs. By the 1990s, the era of the vertically integrated corporation was over and supply chains became increasingly complex, stretched and extended globally (Gereffi et al., 2005; Kaplinsky, 2021).

Consumer markets in the high-income industrialised countries increasingly determined the character of GVC production in this new globalised and regionalised world. These consumer markets ranged from the most sophisticated, often requiring quality, labour standards and sustainability as well as low price. Lead firms, and particularly retailers and brand-name firms sourced suppliers from a multitude of geographical places. These lead firms determine the parameters and standards within which their suppliers produced goods and services. It was not only the final consumer goods sectors that succumbed to the dominance of GVCs. Heavy machinery, automobiles, aerospace and aircraft, construction, computers, iPhones, fruit and vegetables, agri-processing, telecoms, other services – all became dominated by the dynamics driving value chains. Lead firms concentrated on their core competence and outsourced all other inputs to suppliers – whether local, regional or global – which drove the global dispersion of production, and hence the industrialisation of many (but not all) developing countries that could meet the standards and technical parameters set by the dominant lead firms (Frederick, 2019; Sturgeon, 2008; Davis et al., 2018).

These GVC sourcing processes underpinning globalisation fundamentally changed China's economic status and positioning. China quickly came to dominate assembly activities within light manufacturing sectors, (for example, apparel, footwear, toys, white and brown goods, etc.), as its large factories filled with semi-disciplined and skilled workers, achieved economies of scale to service numerous GVCs and lead firm buyers in the high income industrialised world. For example, China's exports of apparel and footwear came to dominate global trade on a scale never seen before – in 2011 China's share of all trade in apparel in 2011 was 41.4 per cent (Staritz & Morris, 2016). As capabilities within China, and other regional economies, developed so Chinese firms became suppliers of choice for more complex, capital intensive goods as well. China rapidly became the “manufacturing factory of the world”.

The restructuring of globalisation with the increasing dominance of regionalisation and near sourcing (stimulated by, but not reducible to, the COVID pandemic impacting far flung logistics supply chains) has over the past few years altered the dominance of Chinese products in consumer sectors. Despite the misplaced calls from some quarters that this constitutes an end to globalisation, it is important to bear in mind that this is actually a restructuring of globalisation, and not deglobalisation. It may have led to a global decrease in Chinese sectoral exports, but not the complete elimination of Chinese dominance. This is clear in looking at the changing basis of China's share of global exports between 2016 and 2022 as regards key consumer goods. Its share of global exports of these goods may have fallen, but it still commands the predominant share of global exports (clothing and accessories from 41 per cent to 37 per cent, furniture 64 per cent to 53 per cent, footwear 72 per cent to 65 per cent, travel goods and handbags 83 per cent to 70 per cent) (Larocco, 2022).

GVCs still play a major role in globalisation, but the emergence of regional blocs (the European Union (EU), the North American Free Trade Agreement (NAFTA), the Association of Southeast Asian Nations (ASEAN), etc.) also has regional value chains (RVCs) incorporating regional members and also countries on their margins and underpinning their statutory regulatory frameworks. Some of this restructured pattern of global trade is due to the geographical relocation of global sourcing of lead firm's suppliers to closer areas (near-shoring). However, a large part is also due to the emergence of Southeast Asian regionalisation, as suppliers in Malaysia, Vietnam, Bangladesh, Cambodia and so on, have increasingly participated in GVCs, often under the dominance of Chinese lead firms (Kaplinsky, 2023).

2.1 The dispersion of Chinese FDI (foreign direct investment) in the developing world

The global dispersion of production had a dramatic impact on the Chinese economy. Per capita incomes grew rapidly and most of the progress made in the reduction of global poverty levels was a direct consequence of China's rapid economic growth. It not only led to large new firms in the manufacturing sectors being incorporated into GVC supply chains, but industrialisation and rapid urbanisation had concomitant effects on accelerating infrastructural growth. New cities, roads, railways, ports, dams, power stations abounded, all requiring raw materials, much of which had to be sourced globally since demand outstripped the domestic Chinese natural resource base. Amongst other impacts, this resulted in an extended commodities supercycle (Farooki & Kaplinsky, 2013). Very large, predominantly state-owned, firms emerged in the construction and building materials sector. Backed by the Chinese state, both diplomatically and financially, they sought access to hard and energy commodities (mining and oil) as well as to soft commodity (food) sources in the developing world (Kaplinsky & Morris, 2012; Foster, 2022). The result was a major outward economic push on the part of these large state-owned enterprises (SOEs) supported by the Chinese state which intertwined many of the economic firms with geo-political and diplomatic activities.

Chinese FDI into the developing world therefore escalated rapidly from 2000 onwards, both in flows and stocks. Africa became a preferred destination for Chinese SOEs searching to exploit mining and energy sources, with their activities often underpinned by Chinese government loans and grants offering large lines of credit in risky countries, generally secured by commodity exports back to China. This particular form of financial diplomacy, bundled Aid, Trade and FDI in the so-called "Angola-mode", reflecting its early use in Angola. This form of insertion was particularly prevalent in the first decade of the 21st century although its exact extent and spread is a matter of dispute.

In line with the role that Chinese loans have played in structuring economic relations with recipient countries much of the literature has been very state-centric when discussing Chinese FDI. Nonetheless, this misses the point on two counts: First, much of Chinese expansion has been commercially based, and not just or even primarily, related to state subsidies in search of diplomatic advantage. Second, the original thrust of Chinese FDI in the commodities and infrastructure sectors moved into a broader range of industrial and service sectors. It also shifted from being primarily SOE-based to private sector initiated, since the large state-owned Chinese firms were predominantly involved in the minerals and construction sector. A new era of Chinese investment in the developing world came into being.

Some Chinese manufacturing firms had cut their teeth as suppliers to lead firms in US and EU GVCs. They had matured and themselves grown into large firms. Private Chinese capital emerged as a major phenomenon. The state backed global move of Chinese FDI outwards also gave rise to private sector Chinese large firms investing abroad as they moved into Asia, Latin America, and Africa countries. This was also followed by swathes of small Chinese private firms

leaving China being set up as locally incorporated enterprises in developing countries as small shops or small industrial enterprises, or Chinese migrant workers spinning out of large infrastructural projects and moving into petty commodity production, trading, and agriculture, especially in Africa (Kaplinsky & Morris, 2012). Globalisation therefore not only led to the global dispersion of production to the developing world and China as the new world factory. It also led to the globalisation of Chinese firms.

Ding et al. (2021) present data on Chinese global investment but because it is based on transaction mergers and acquisition data (average value and number of deals) it underrepresents the full extent of Chinese SME (small and medium sized enterprises) expansion globally. Their analysis does however show that Chinese FDI in the developing world, although initially highly concentrated in basic materials and energy before 2013. Thereafter Chinese FDI became more diversified across the consumer goods, services, industrial goods, telecoms, and utilities sectors (Table 1). Hence it cannot be understood simply in terms of SOEs searching for raw materials and commodities to feed into China's industrialisation process.

Table 1: Chinese investment (average deal value) in the developing world by top sectors and regional destination 2001-2018 (USD million)

Regions	Basic materials/ energy	Consumer	Finance	Health/ technology	Industry	Telecom	Utilities
East Asia Pacific						1,840	604
Latin America Caribbean	1,067				404		1,305
Middle East North Africa	691	433		416			
Sub Saharan Africa	585		1,063				

Note: Only the top two sectoral investments are included to demonstrate the predominant flow of investment for each region over this period. South Asia is not included as Chinese investment in the region is relatively much smaller.

Source: Adapted from Ding et al. (2021)

Figure 1 sets out a typology of different types of Chinese enterprises. These are classified into Central and Provincial State-Owned enterprises versus privately owned enterprises differentiated by size and modality of operations. The private sector aspect captures the distinction between lead firm privately owned transnational Chinese firms and medium to small Chinese firms which do not necessarily have a relationship to the Chinese state. The Chinese private sector has increasingly played an important role in outward FDI, especially in Africa (Kaplinsky & Morris, 2012). The main point of this typology is to clearly demonstrate that it is mistaken to reduce Chinese FDI to large SOEs focused on extracting natural resources and underpinned by Chinese infrastructure projects. As Foster (2022) discusses there are also differences in how provincial and central state SOEs investment behave.

Figure 1: Four types of Chinese investors in developing countries

Predominantly state-owned	Central state Normally accountable to State Council Tender for China EXIM Bank financing Predominantly resource-sector, infrastructure projects, and construction Formal China-to-government agreements Generally well-documented, but not always transparent agreements	Provincial state Provincial government objectives Tender for China EXIM Bank financing Predominantly resource-sector, construction, infrastructure projects Generally twinning with other governments Generally well-documented, but not always transparent agreements
	Incorporated in China & other country Predominantly manufacturing/services Largely self-financed Independent of Chinese government Large flagship firms often supported by Chinese government	Incorporated in developing country only Trading, manufacturing, and services Self-financed Independent of Chinese government May not be legally incorporated Familial contacts important

Source: Adapted from Kaplinsky & Morris (2012)

The rise of private sector Chinese firms moving into and operating in the developing world has been relatively recent and dramatic. Chinese SOEs traditionally represented the bulk of China's overseas investments in infrastructure, energy, and mining projects. Non-SOEs accounted for approximately 19 per cent of all Chinese foreign investment in 2006, but by 2020 Chinese private firm FDI had risen to 49.9 per cent, primarily concentrated in manufacturing and services (Ni, 2020). It is important to recognise that these aggregate figures only reflect officially recorded investment flows and fail to recognise the importance of the large number of very small scale activities in petty commodity manufacturing and services.

The globalisation of Chinese FDI and lead firms also coincided with a change in the manner in which GVC standards were viewed by the consumers and governments in the high-income industrialised world. This, as we will show below has been and will increasingly likely be reflected in the operations of Chinese firms in emerging economies.

3 GVCs and the rise of ESG standards

In response to demanding consumer markets, pressure from non-governmental organisations (NGOs), government regulatory requirements, international agencies, and local communities in developing countries, the setting of various GVC standards has been pushed high up the corporate agenda, as lead firms respond to the twin imperatives of improving their economic performance and ensuring their social licence, primarily in the countries in which they sell their final products but also in order to operate with local community buy-in where they are produced. Agenda 2030, launched in 2015 by the United Nations (UN), which foregrounded the prominence of the Sustainable Development Goals (SDGs) accelerated this tendency, particularly in respect of voluntary standards (Schleifer et al., 2022). To become integrated into supply chains, companies have to meet increasingly higher requirements. However, higher standards also create barriers to entry, excluding the weakest market participants like small farm holders or micro, small and medium sized enterprises (MSMEs) (Kaplinsky & Morris, 2018;

Werner & Bair, 2019). Moreover, as a result of the dominance of governed value chains in most sectors, the ability of enterprises (medium, small and micro) not incorporated in GVCs to sell directly into markets outside of the value chains which dominate them is increasingly constrained (Gereffi et al., 2005; Kaplinsky, 2021).

To achieve these market requirements, especially those at the more sophisticated end of the market spectrum, suppliers (farmers, manufacturers, service firms) have to meet the ever higher standards demanded by the lead firms. These include standards reflecting a combination of environmental, social and governance sustainability requirements. Increasingly, in many cases this operates not only at the global and regional export level but also within domestic value chains supplying supermarkets and retail chains (das Nair, 2021). Generally speaking, higher income economies (and income segments in middle income economies) have much more standards intensive markets than low and middle income economies. The lead firms which dominate importation of goods into the high income economies, and governments which regulate their acceptance, have increasingly insisted on incorporating such standards and verifying compliance along their chains (Fernandez-Stark & Gereffi, 2019; Elms & Low, 2013, Gereffi et al., 2005).

Regulations and standards have become an increasingly important factor affecting the capacity of producers to participate in markets – especially demanding export markets. Some standards are set by lead firms within their chain. These are private but mandatory standards to ensure behavioural conformance by supplier firms and customers which influence the competitiveness of the chain. A second type are public standards promoted by external agencies which are designed to influence the nature of the GVC but are not mandatory for market entry. The third set of chain standards are regulations set by external parties (notably nation states and supranational institutions such as the EU) which are public and legally mandatory and which govern market entry (Davis et al., 2018).

There are two families of regulations and standards: those relating to the character of *products* (be they raw materials, intermediates, final goods, or services), and those relating to the character of the *processes* involved in the production of these products. Directly and indirectly, standards not only determine the terms of market entry but also affect the extent to which different producers are able to position themselves in value chains in a manner which provides for socially and environmentally sustainable income growth (Kaplinsky, 2019; Kaplinsky & Morris, 2018). In many international supply chains, large firms in conjunction often with civil society partners have agreed on voluntary standards and codes of conduct. In terms of regulatory requirements governments and international standard-setting bodies have also influenced the design of supply chains. These have either created legally mandated basic standards to be complied with, or exerted pressure on lead firms and suppliers through transparency rules, labelling, promotion of innovative practices, sustainable public procurement, and various other measures (Fernandez-Stark & Gereffi, 2019; Gereffi et al., 2005; Kaplinsky, 2023; Kaplinsky & Morris, 2018; Davis et al., 2018).

The commitment to meet the Sustainable Development Goals has also changed the public/private standards landscape. SDGs have brought “triple bottom line” accounting to the forefront for large corporates (Schleifer et al., 2022). The growing role played by brand names and the increasing competition in the retail sector in the high-income economies has meant that firms are increasingly vulnerable to reputational damage: pesticide residues in salads can knock a retailer’s reputation badly; the use of child labour in the supply chain can cause heavy damage to a branded manufacturer, as can an environmental spillage by a supplier. Civil society organisations (CSOs) have taken advantage of the very strengths of global brand names and large scale retailers (their brand images) to pressure them with regard to the sustainable character of their supply chains and the provenance of their inputs and products. The financial services have located ESG compliance as a financial risk, thus placing even greater scrutiny on corporates. This has led to ESG standards (environmental, health, social, fair labour practices,

and latterly also governance) coming to the forefront in the manner in which lead firms drive protocols down their supply chain and require suppliers to meet these requirements (Ponte, 2019).

Integrating SDGs and ESG standards into value chains and requiring suppliers to meet them has introduced a level of complexity that was not present during the early phases of GVC growth when it was enough for lead firms and suppliers to meet the technical requirements to make them more economically competitive. ESG covers an extremely wide array of issues. For example, being concerned with ESG standards requires taking account of issues such as: climate change, carbon emission reduction, waste reduction, water pollution and scarcity, air pollution, deforestation, greenhouse gas emission, energy usage, internal and external stakeholder relationships, gender and racial diversity, human rights, employee relations, compensation, health and safety, community relations, socially responsible investing, ethical supply chains, and company transparency.

This requires paying attention to the complexity, interactions, dependent interrelationships, and potential trade-offs occurring between the various ESG aspects comprising sustainability (Rossi 2019; Nielson 2019). For example, emphasising environmental issues to the exclusion of other aspects may result in a degradation of social conditions of work and living. Reducing sustainability to a focus on organic products may exclude a range of enterprises and workers (many women) employed in developing countries. Likewise, treating economic stability as the only issue underpinning sustainability may result in economic growth but very limited development gains. Most importantly, access to final markets increasingly requires a comprehensive response to the plethora of ESG standards in GVCs.

It also means bearing in mind that we live in a globalised world where international trade, driven by GVC and RVC dynamics, is intensively competitive. This creates major pressures on firms (lead multinational corporations (MNCs) as well as suppliers) and countries (developed and developing) to respond adequately in order to ensure competitive survival and future growth. It has resulted in lead firms making their own supply chain rules (creating their own standards adherence frameworks) as well as having to be rule-takers by adhering to internationally imposed standards and regulations (Davis et al., 2018).

There are important differences in the motivations of public and private stakeholders in imposing regulations and standards on suppliers.² From the public policy perspective, virtually all of the import regulations are designed to protect consumer safety or the environment. As a general rule, government imposed regulations (as well as those determined by inter-governmental agreement) apply only to products, and these are mandatory. There is no discretion available to importers – either the regulations are met by the supplier, or the products cannot be imported. Corporate standards are of secondary importance to government regulations in determining market entry. Only once government product regulations are met do corporate standards come into play. These corporate standards are more complex than government regulations. They are generally discretionary – incorporating degrees of achievement and often involving trade-offs between standards. They also have to take into account issues pertaining to the social licence to operate – in other words, how local communities in developing countries perceive both the right of lead firms to operate economically and benefit from such operations. For example, gaining the social licence to operate for a lead mining firm may mean the difference between corporate life or death at the initial stage of the extraction process.

2 The 2022 EU Corporate Sustainability Due Diligence Directive obliges companies to manage social and environmental impacts throughout their supply chain including direct and indirect suppliers, their own operations, as well as products and services. This will substantially impact developing country suppliers selling into the EU.

ESG comes into play to determine the social licence of lead firms to also operate in final high income country markets. Standards are imposed by lead firms in order to avoid the reputational damage arising from products and processes in their supply chains which do not meet the demands of consumers in their chosen niche markets. The capacity of individual lead firms to excel in meeting these social and environmental standards often provides them with a competitive marketing advantage over their rivals. One of the major social standards are those addressing labour issues. Much of the impetus for this derives from a series of ILO (International Labour Organization) driven initiatives – for instance, the Ethical Trading Initiative. Although many firms have individual standards in their supply chains, there is growing pressure to draw on generalised labour standards since large suppliers in developing countries have found it costly to meet the variety of different standards set by individual firms (Davis et al., 2018). Another ESG standard is the Fairtrade initiative which tries to ensure that producers and communities involved in a particular production process receive a fair return for their activities.

An increasing number of firms have introduced environmental standards into their supply chains. In some cases, these standards draw on parameters defined by external bodies. This is the case in the forest, timber, and wooden products sector where many firms seek certification under the aegis of the Forest Stewardship Council (FSC). The FSC standards involve sustained application throughout the chain, as well as a “chain-of-custody” formal certification which follows the materials all the way from the forest (including the cutting of trees) to the final product sold in the retail outlet. For a product to be FSC certified, there must be an unbroken chain of FSC auditing from the certified forest to the various stages of manufacture, to the point where the final product is sold under the FSC label.

Organic standards have become one of the fastest growing means of certification globally, primarily serving industrialised high-income markets, and arising in part from the 20-40 per cent price premiums supermarkets apply to organically certified products. The International Federation of Organic Agriculture Movements (IFOAM) established a globally accepted organic definition based on farm management practices involving the use of natural methods of enhancing soil fertility and resisting disease, the rejection of synthetic chemical fertilisers, pesticides, pharmaceuticals, and the protection of ecosystems. It promotes certification systems oriented towards high income country consumers, based on commercial market specifications – often at the expense of locally based sustainable farming practices in developing countries. The focus is on codified standards controlling production inputs rather than traditional agricultural methods. It requires rigorous third party monitoring, enforcing uniformity dependant on scientific and industrial criteria (das Nair & Landani, 2021; Edwardson & Santacoloma, 2013; Schader et al., 2021; Willer & Kilcher, 2010). Originally a voluntary private standard, IFOAM certification has become incorporated into government regulatory systems; for example, the EU has harmonised its organic regulations setting organic criteria for crop and livestock production following IFOAM standards. Globally, the United Nations Codex Alimentarius Commission has incorporated standards, monitoring, and certification in governing organic agri-food networks for all its 160 member countries – largely following EU and IFOAM specifications.

At the heart of applying ESG lies the question of inclusion – who gains, and in what ways, from sustainable economic growth? Regulations and standards can be an absolute barrier to entry into GVCs. However, exclusion may not surface as an absolute bar on participation in GVCs, but rather an exclusion from particular market niches, such as Fairtrade and organic markets (Kaplinsky & Morris, 2018). ESG dynamics within GVCs can also be both inclusionary (creating employment opportunities) and exclusionary (replicating societal gender exclusion dynamics from certain skills, etc.) for women workers (Barrientos, 2019; Nielson, 2019).

ESG standards are not uniformly enforced by lead firms in their supply chains. The most constructive approach is to assist suppliers to upgrade their operations so as to meet particular public or private standards. Here lead firms apply a much more active policy of enforcement (Gereffi, 2019). In such cases, depending on the capability of suppliers, lead firms will engage

with their suppliers in their own supply chain development programmes to assist them in learning and attaining the required technical and social standards (Staritz & Whitfield, 2019). A variant of this active approach is where lead firms contract specialised intermediaries to run special programmes assisting their suppliers in meeting standards. This encouragement/assistance through intermediaries (for example TechnoServe) is often the case with small farmers or small/micro enterprises. Sometimes, international government development programmes will also fund similar training and support activities to small farmers.

In contrast, some lead firms adopt a passive, sink-or-swim approach to suppliers in a lead firm's supply chain. This approach towards supplier performance is heavily dependent on certification to standards set by international norms. Such a passive policy is often exhibited by lead firms which are relatively new in their use of global supply chains, and/or which are not exposed to consumer pressure because they produce capital or intermediate goods rather than branded consumer goods. In these global supply chains, the lead firm will simply publish their requirements to suppliers (including the required certification to international standards such as those produced by the ISO (International Organization for Standardization)), and then limit their actions to the verification of supplier performance (Gereffi et al., 2005). Non-compliant suppliers are sanctioned with lower prices, or delisted – they are left to sink or swim (Kaplinsky & Morris, 2018).

There are also downsides for developing country producers and communities in the application of ESG standards, since they involve dealing with trade-off decisions. Notwithstanding their contribution to inclusive and sustainable development, there is evidence that standards compliance can also be exclusionary, undermining the positive contributions which standards have made to the achievement of the SDGs (Kaplinsky & Morris, 2018; Barrientos, 2019; Lund-Thomsen, 2019; Nielsen, 2019; Rossi, 2019). Ultimately, the question is whether the higher prices which ESG standards compliance may deliver outweigh the costs of achieving standards compliance. For many larger producers, who benefit from scale and already possess many of the necessary capabilities required to perform to required standards, the net balance is positive. But for other producers, particularly small scale and informal sector producers, this may not be the case.

Two primary types of exclusion are observable: ESG standards often exclude small scale producers and unskilled workers, and this is often hidden in the supply chain monitoring of standards (Kaplinsky & Morris, 2018). A primary form of passive exclusion widely evidenced in a range of GVCs is that illiterate and innumerate workers are excluded from employment in those parts of the chain which involve standards certification. These workers lack the skills to participate in the recording processes which are central to certification schemes. Conforming to regulations and standards can exclude disadvantaged and marginal producers. These adverse outcomes arise both as a consequence of passive factors (not being able to meet entry requirements in chains) and active factors (being forced out of the chain). This occurs because achieving certification can be a costly process – not only paying for certification, but more importantly, the cost of the process changes required to meet the lead firms demands. These costs may be trivial for large firms, but very substantial for small or poorer producers. This is particularly the case for micro and informal sector enterprises, as well as small scale agricultural producers in Africa.

3.1 A framework to analyse Chinese FDI and ESG

How does this ESG complication of GVC dynamics relate to understanding the behaviour of Chinese firms in the developing world in terms of environmental, governance and social standards? Our previous typology of differentiating Chinese firms by type and sector of operation needs to be amplified by incorporating these ESG standards into the mix. This is complicated because, as we have seen above, the term ESG covers a very broad myriad of environmental,

social and governance sub-issues which do not necessarily seem integrally interconnected. In order to provide some structure to the discussion of Chinese firms and their operational incorporation of ESG standards, we have therefore organised the problem from the perspective of a firm's value chain operations – in terms of its input linkages, its internal operational processes, and its locational contextual linkages.

The input linkages dimension provides an understanding of how Chinese lead firms relate to value chain upgrading issues within their supply chain: Are they engaged in purely market based relationships or rather driving specific economic, social and environmental standards through their supply chain linkages. For example, do they require their suppliers to be accountable according to various value chain economic and ESG protocols? In terms of such supply chain linkages, are they engaged in various forms of upgrading of suppliers? The internal operational process refers to their utilisation of their work force and incorporates a range of internal social issues around localised employment, working conditions, training, gender, and so on. Importantly amongst these has been a vocal critical narrative that Chinese firms do not employ local workers and instead depend on Chinese migrant labour, and hence they do not engage in upskilling of workers. The locational contextual linkages allow an understanding of how firms relate to the broad social issues of community embeddedness. Here the critical narrative has been that Chinese firms operate in an enclave manner and do not build social relations with local communities.

On this basis, we have developed a three dimensional framework to capture how Chinese firms relate to ESG issues. This framework is intended to enable one to analyse and understand how Chinese firms approach ESG through breaking it up into constituent value chain linkages between suppliers, workers, and surrounding communities. The key elements of this framework are the following:

- Supply chain relations (i.e., how Chinese firms support upgrading of local suppliers);
- Internal firm processes (i.e., how Chinese firms approach employing local labour, as well as training and upskilling such workers);
- Social licence to operate (i.e., how Chinese firms meaningfully engage with local communities and whether they take account of their social and economic needs).

This framework is graphically presented in Figure 2.

This framework enables a classification of Chinese firms in developing countries using the above three dimensions of their value chain operations and which cover many of the ESG standards they are required to meet. Importantly the three dimensional framework enables a more focused discussion assessing Chinese firms in the developing world terms of various ESG standards which, in the public narrative, they are often criticised for not upholding. Using this framework, we are able to analyse the nexus between Chinese outward FDI and ESG standards in order to assess how the Chinese firms in developing countries stack up against these ESG requirements.

This framework, if combined with the typology specifying different types of Chinese firms operating in the developing world (see Figure 1), can also help to differentiate how different types of Chinese FDI plays out across different areas of investment, and how Chinese firms engage with ESG concerns. For example, the large private sector Chinese firms that operate on various stock exchanges or engaging with international financial institutions (including within China) are more susceptible to economic and financial risk assessment pressures. Likewise Chinese SOEs are more vulnerable to having to comply to home country regulatory frameworks. In contrast, medium and small private sector firms in developing countries, trying to hide under the radar, are unlikely to respond to such compliance requirements pressure. However, they are extremely vulnerable to host country legislative requirements and local community reactions.

Figure 2: A framework analysing Chinese firms and ESG

Source: Author

The prevailing view of how Chinese firms have operated in the developing world is often structured around a discourse that they look to the Chinese state only to represent them and hence do not engage with local conditions (regulatory frameworks, local stakeholders, communities, NGOs, etc.) – hence the criticism that they have not applied the same ESG standards as multilateral organisations or EU governments development cooperation frameworks and standards. Whilst this contains more than an element of truth, the overall picture is much more nuanced, and the activities of Chinese enterprises abroad are more mixed than this generalised prevailing view.

3.2 The Chinese government and ESG

As China has become more integrated into deep globalisation, and as Chinese firms have moved with some rapidity into investing globally, with a concomitant changing geo-political dynamic, the Chinese government has adapted its own global regulatory requirements into its own national financial and economic legal regulatory framework. As Fabiano and Daviron (2023) argue, China has become much more clearly defined in supporting green value chain legal initiatives, not only as a result of deep globalisation, but also because of geo-political alignment as it becomes more intertwined with developing world economically and politically.

China has responded to the fore-fronting of ESG standards over the past decade in two ways. First through the Chinese state adopting or aligning to regulatory frameworks. This will be discussed in this section. Second in the manner in which various individual Chinese firms have dealt (both positively and negatively) with these ESG dimensions. The latter response will be discussed in Section 5.

Primarily in response to internationally negative views of Chinese investment which has encouraged negative pushback from host country communities, stakeholders and governments, the Chinese government has shifted its approach to global and national regulatory frameworks. It has done so by incorporating some of the international ESG parameters into its own regulatory regime promulgating twenty guidelines and policies related to its overseas activities since the 2010s (Gong, 2022). An important ESG example of this is the Green Credit Directive 2012, issued by China's banking regulator.

Hence there have been some signs over the past decade that Chinese companies, at the urging of the Chinese government, have been attempting to conform more closely to international standards (Sun, 2022). Major Chinese companies generally operate within a framework established by China's state-owned Assets Supervision and Administration Commission (SASAC). Over the last 15 years, Chinese domestic environmental standards have begun to become more stringent, and the Chinese government has pushed for companies investing abroad to pay attention to environmental and social factors as well as profit. Loosely defined corporate social responsibility requirements have been put forward, and major Chinese companies have begun to publish CSR (corporate social responsibility) reports of some kind. Mining companies have also established in-house safety and environmental units (Kotschwar et al., 2012). The fundamental issue of substantial implementation remains.

Whilst this new approach to regulatory frameworks has been welcomed there have been previous initiatives to increase implementation and to strengthen transparency by requiring formal reporting and incorporating grievance mechanisms to allow host country governments and civil society to be involved in the difficult and delicate task of managing Chinese investment abroad.

A 2015 comparison of regulatory requirements (Ray et al., 2015) between multilateral lenders (the World Bank, the International Finance Corporation, and the Inter-American Development Bank) and Chinese banks/regulators (the Chinese Ministry of Commerce (MOFCOM), the China Banking and Insurance Regulatory Commission (CBIRC), the China Development Bank (CDB), and the China EXIM Bank) shows both how far China had proceeded in taking into account ESG regulatory standards and yet how much they still lagged behind internationally. By and large, the multilateral lender required compliance with the following: ex-ante environmental impact assessments; project review of environmental impact assessments; industry specific social and environmental standards; compliance with host country environmental regulations; compliance with international environmental regulations; public consultation with affected communities; grievance mechanisms; independent monitoring and review; establishing covenants linked to compliance; and, ex post environmental impact assessments. Chinese lenders and regulators however had fewer regulatory requirements than the multilateral lenders. Furthermore, since MOFCOM policies were only voluntary in nature, they were not really classifiable as requiring regulatory compliance.

However, in June 2022, in a bid to green China's Belt and Road Initiative (BRI), the China Banking and Insurance Regulatory Commission (CBIRC) issued new "Green Finance Guidelines for the Banking and Insurance Industry" which specifically focussed on green banking (green loans and green credit). The aim was "to prevent environmental, social and governance (ESG) risks" and "to strengthen ESG information disclosure and interaction with stakeholders" (Wang & Bing, 2022, p. 1).

The guidelines cover the following five areas:

- Mainstreaming carbon peak and carbon neutrality targets in financial institutions;
- Highlighting green corporate governance to promote top leadership on green finance issues;
- Stressing environmental information disclosure (strategies and policies) with reference to international standards and good practice;
- Emphasising banking responsibility to implement green development (including disclosure, risk management and policy systems);
- Stipulating that banks should require their clients in overseas projects to comply with relevant national environmental laws and follow international practices or guidelines, so that the project is substantially consistent with international good practices.

Chinese banks have also come under pressure from the UNEP (United Nations Environmental Programme) Financial Stability Board Task Force for Climate-Related Financial Disclosure (TCFD) established in 2017. This was designed to develop consistent climate related financial risk disclosures for use by companies, banks, and investors in providing information to stakeholders. The TCFD seeks to guide banking's approach to ESG compliance. Although China is not a signatory to the TCFD, the financial disclosure mechanisms which are being introduced by Chinese banks, are aligned with those of the TCFD.

Grounded in the 13th Social and Economic Plan (2016-2020) and manifesting itself in a raft of guidelines and regulations made public post-2020, the Chinese state has required Chinese firms abroad to conform to its guidelines as well as host country regulations, laws and norms. These new guidelines require project sponsors and their main contractors and suppliers to comply with relevant country laws and regulations on ecology, environment, land, health, and safety. Furthermore, they must ensure that SOE project management is substantially consistent with international good practices. The guidelines also seek alignment with the 2022 Guidelines for Ecological Environmental Protection of Foreign Investment Cooperation and Construction Projects, and the 2021 Green Development Guidelines for Foreign Investment and Cooperation. In summary, project stakeholders outside of China are required to pay attention to Chinese ESG regulatory frameworks and are also encouraged to abide by host country national and local environment laws and follow international common practices. Table 2 sets out China's recent progress on ESG standards.

Table 2: Recent developments in China's regulatory framework regarding ESG standards

Sector	Name	Related topics	Issued by	Date
Financial	Guiding Opinions on Building a Green Finance System	Mandatory environmental information disclosure system for listed companies.	People's Bank of China (PBC), China Security Regulatory Commission (CSRC)	2016
	Green Investment Guide (Trial)	Fund managers to carry out green investment activities	Asset Management Association of China (AMAC)	2018
	Trial Guidelines to Pilot Financial Institutions	Framework for financial institutions' environmental information disclosure	PBC	2020
	Q&A Piloting Social Bonds, the Sustainability Bond	Social and ESG bonds	National Association of Financial Market Institutional Investors (NAFMII)	Nov 2021
	14th Five-Year Plan for Financial Standardization	Green bonds & finance, carbon accounting standards, ESG evaluation standard system	PBC, State Administration for Market Regulation, China Banking and Insurance Regulatory Commission (CBIRC), CSRC	Feb 2022
	Standards for Carbon Financial Products	Green bonds and finance, carbon accounting standards	CSRC	Apr 2022
	China Green Bond Principles	Green bonds and finance	China's Green Bond Standards Committee	July 2022
Listed SOEs, private sector	Cooperation Agreement – Jointly Developing Environmental Information Disclosure of Listed Companies	Information disclosure	CSRC and the Ministry of Environmental Protection	2017
	Research Report on ESG Evaluation System for Chinese Listed Companies	Promoting listed companies to improve information disclosure and corporate governance	AMAC	2018
	Revised Listed Company Governance Code	Disclosure of ESG information	CSRC	2018

Sector	Name	Related topics	Issued by	Date
	Revised Format Standards for Annual Reports and Semi-Annual Reports of Listed Companies	Environmental protection and social responsibility of listed companies	CSRC	June 2021
	Measures for Enterprises to Disclose Environmental Information by Law	Requiring five types of enterprises to disclose environmental information	Ministry of Ecology and Environment	Dec 2021
	Research on Guidelines for ESG Information Disclosure by Listed Companies Controlled by Central SOEs	ESG requirements and standards	State Council's State-owned Assets Supervision and Administration Commission (SCSAC)	July 2022
	Workplan for Improving the Quality of SOEs	ESG requirements and standards	SCSAC	May 2022
Civil society, business societies	Guidance for Enterprise ESG Evaluation	ESG requirements and standards	China Social Responsibility 100 Forum	Nov 2022
	Guidance for Enterprise ESG Disclosure	ESG requirements and standards	China Enterprise Reform and Development Society	June 2022
	General Principle of Enterprise ESG Information Disclosure and Evaluation	ESG requirements and standards	Xinhuanet Development Research Center, State Administration for Market Regulation	July 2022
Mining	Guidelines For Social Responsibility in Outbound Mining Investments	CSR: human rights, labour rights, environment, stakeholders' implication, responsible value chains, transparency	China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters	2014
	Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains	Observe the UN Guiding Principles on Business and Human Rights and conduct risk-based supply chain due diligence	China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters	May 2015

Source: Author

The 13th Plan was an accelerating game changer in respect of ESG standards, guidelines and regulations. As is clear from Table 2 it provided a foundation for establishing a regulatory ESG framework for Chinese institutions. The major thrust came from environmental concerns affecting socio-economic conditions within China, as well as a recognition that climate change issues had to be tackled. This major shift in the Chinese communist party thinking, coupled with companies having to adapt to the opening capital markets, has consequently had an impact on many enterprises within China, propelling them into voluntary reporting of information related to ESG issues.

This was particularly the case for large, listed companies on the Shenzhen and Shanghai stock exchanges publishing annual ESG reports. In 2009, only 371 companies on these stock exchanges (called Chinese A-share companies) published reports that could be labelled as sustainability or CSR relevant. By mid-2020 this had jumped to 1,021 companies publishing CSR/ESG reports, which amounts to more than a quarter of all A-share companies on these stock exchanges. In addition, the Hong Kong Stock Exchange has required listed companies to issue ESG reports since 2016, accelerating this momentum. This tendency to move towards public ESG declaration is more prevalent amongst large companies. According to J. P. Morgan, the percentage of CSI 300 constituent firms (the 300 largest and most liquid A-share companies) producing ESG reports increased from 49 per cent in 2010 to 86 per cent by 2020. ESG public funds have also increased – in 2021, 48 new ESG products were released, which is nearly as much as the total of the previous five years (Zang, 2022). However, despite this surge in relation to ESG issues, globally speaking the level of China's ESG disclosures and rating scores remains relatively low in terms of all companies. There is also still some way to go in relation to the quality of ESG disclosed information, which undermines the soundness of a Chinese ESG evaluation system. However, there is undoubtedly a major push in regard to achieving ESG ratings, both from government and large companies.

The next section sets out some general issues about Chinese firms operating in three geographical regions – Latin America, Asia, and Africa. This is followed by more detailed examples of Chinese firms operating in developing countries to examine their approach to the above ESG dimensions.

4 A regional perspective – Chinese investment in Latin America, Asia, and Africa

4.1 Latin America

As Table 3 shows, initially Chinese FDI in Latin America was heavily invested in primary commodities, especially the extractive industries – mining and energy – but this changed significantly after 2010. During 2004 - 2010, 64% of Chinese investment announcements and 83% of Chinese overseas mergers and acquisitions (M&As) were in the metals and energy sectors as share of total investments. In the subsequent period (2011-2017), the share of investment announcements and M&A in these sectors dropped to 28% and 36% respectively. The drop in the share of M&A activity in the energy sector after 2011 is dramatic - from 72.6% to 26.6%. By contrast Chinese M&As investments in renewable energy increased at an accelerating pace – by 5865% - so that its share rose from 1% to 15.4%. Generally speaking the percentage share data in Table 3 clearly shows that the concentration of Chinese investments in Latin America before 2010 altered significantly in favour of diversification of Chinese investments across sectors.

Table 3: Latin America and Caribbean: destination sectors by Chinese companies, 2004 to October 2017 (USD million)

A: Investment announcements					
Sector	2004-2010 USDm	Share of total %	2011-2017 USDm	Share of total %	Increase between periods
Autos and parts	3,682	24.6%	6,921	23.9%	88%
Metals	6,676	45%	6,343	21.9%	-5%
Telecommunications	226	1.5%	4,235	14.6%	1,774%
Real estate	26	0.2%	3,863	13.3%	14,758%
Food/Tobacco	7	0%	3,186	11%	45,414%
Energy (coal/oil/gas)	2,840	18.9%	1,740	6%	-39%
Financial services	1,212	8.1%	1,312	4.5%	8%
Renewable energy	311	2.1%	1,353	4.7%	335%
Total	14,980	100%	28,953	100%	
B: Mergers and acquisitions					
Sector	2004-2010 USDm	Share of total %	2011-2017 USDm	Share of total %	Increase between periods
Utilities	1,721	12.9%	18,859	38.9%	996%
Energy (Oil and gas)	9,705	72.6%	12,920	26.6%	33%
Renewable energy	125	0.9%	7,456	15.4%	5,865%
Other	502	3.8%	4,871	10%	870%
Mining and metals	1,320	9.9%	4,422	9.1%	235%
Total	13 373	100%	48,528	100%	

Source: Adapted from Barcena et al. (2018)

Overall, between 2000 and 2020 Chinese FDI mainly flowed into energy (36.7 per cent), metals, minerals and mining (35.7 per cent), auto parts and automobiles (4.1 per cent), electronics (2.4 per cent), telecoms (2.4 per cent) and transport (2.2 per cent). More recently Chinese investment has become more interested in renewable energy, transport infrastructure, light manufacturing, financial services as well as information and communication technology (ICT) sectors (Ding et al., 2021; Wintgens, 2022).

Since 2011, there has been a reduction in the scale and importance of capital intensive, state backed mega projects. Chinese investment in Latin America is moving from a primarily SOE focus to private sector firms. In line with this tendency, private capital mergers and acquisitions are becoming the major form of Chinese investment rather than greenfield investments. These incoming funds are primarily not to augment productive capacity but to appropriate profits. More than 60 per cent of Chinese investment financial flows into Latin America up to 2018 was in the form of M&A investments. The main country recipients of Chinese investment have been predominantly Brazil and Argentina, but since 2017 this has diversified to include Chile, Columbia, Mexico, and Peru (The Legal 500 Guide, n.d.).

The capacity of Chinese investors to exceed local standards varies across different regulatory regimes and between more experienced and newer firms. This opens up a space for governments and civil society to hold firms accountable and facilitate learning between firms around compliance. In this vein, some Latin American governments are increasingly setting and enforcing social and environmental standards for Chinese firms to comply with (Ray et al., 2015).

A major issue concerning Chinese investment in Latin America has been about the social responsibility of Chinese extractive industry firms and local communities. Peru has been both a centre of such conflict and has also demonstrated ways to deal with it. Peru joined the Extractive Industries Transparency Initiative (EITI) in 2007. In 2011 it became the first LAC country to enact legislation to implement ILO Convention 169, which grants indigenous communities the right to prior consultation on any state policies that directly affect them, including concessions and permits for extractive projects within their traditional territories. EITI requires the Peruvian government and participating companies to publish detailed reports of revenue flows, available online for concerned citizens and civil society. Although not initially members of EITI, in 2014, three Chinese extractive industries companies (Shougang, China MinMetals, and CNPC) joined EITI (Sanborn & Chonn, 2015, p. 8).

Peru has legislated to incorporate the mining sector's Corporate Social Responsibility (CSR) programme into law. Municipalities and regional governments in areas where mineral resources (metals and industrial minerals) are exploited receive 50 per cent of the taxes collected, which are to be invested in education and social programmes (health, housing, and so on) in conformance with the Canon Minero. This is supplemented by the Mining Solidarity with the People (PMSP) programme. The objective of the PMSP is to improve the quality of life of the populations located in the area of influence of the respective mining activities. Payment into the PMSP is voluntary. However when these contributions were introduced, there was very little local and provincial capacity to create or manage local spending efficiently and effectively. Consequently, Organisation for Economic Co-operation and Development (OECD) mining companies were concerned about avoiding corruption and ensuring adequate fund governance. Hence these companies engaged in a capacity building programme to manage such public expenditure. Chinalco Peru, part of the Aluminum Corporation of China and mining copper through the Toromocho Mining Unit, joined this endeavour. The programme aimed to create new partnerships with international and local NGOs, to pro-actively design and carry out programmes related to community expenditure and to shift confrontational foreign investor–civil society relationships to cooperative ones (Kotschwar et al., 2012).

4.2 Southeast Asia

China's relationship to economies in Southeast Asia is complicated because of the regional value chains and supplier networks into Chinese domestic firms that have developed. Chinese firms exporting into GVCs have a long history of extending their own supply chains into low cost surrounding countries for simple assembly activities. However, this is not the same as outgoing Chinese lead firms operating in these countries, and hence cannot be discussed under the heading of "Chinese FDI".

Chinese investment in Southeast Asia can be disaggregated into three distinct groupings (Goh & Liu, 2021):

- Indonesia (21 per cent), Malaysia (18 per cent) and Singapore (18 per cent) comprise the top three destinations, totalling 57 per cent of Chinese investments in the Southeast Asian region. The bulk of Chinese investment in Indonesia (55 per cent) has been in energy (coal and hydropower), infrastructure, and metals. The Chinese investment profile in Indonesia switched from an initial concentration in service provision to include ownership acquisitions rather than greenfield production augmenting. These acquired firms may have established

ESG operations which may pose different issues than virgin investments. Chinese FDI in Malaysia rests on a small number of very high value investments around energy, rail, and the Melaka Gateway port. In Singapore, Chinese firms have made acquisitions in energy and services (ecommerce and logistics).

- Laos and Vietnam equally comprise 22 per cent of all Chinese investment in Southeast Asia. Investment is concentrated in energy (hydropower and infrastructure in Laos, and coal in Vietnam).
- A group of much smaller country investments comprises Cambodia (6 per cent), Philippines (5 per cent), Thailand (4 per cent), Myanmar (4 per cent), and Brunei (2 per cent).

In terms of sectoral distribution, according to Goh and Liu (2021), early Chinese investment (2005-2010) in Southeast Asia was primarily in the energy sector. For instance, in 2005 investment in energy was over 80 per cent; in 2007 it was 100 per cent, dropping to over 50 per cent in 2010. After 2010 Chinese investments significantly diversified into infrastructure, metals, and other sectors (Goh & Liu, 2021). However, this needs to be approached with some caution. First, Goh and Liu (2021) only track the Chinese FDI of firms above USD 100 million and therefore miss out on a swathe of Chinese medium and small enterprises. Second, their data merges Chinese awarded infrastructure construction contract projects with true FDI, and hence their infrastructure data is most likely referring to contract projects rather than Chinese firm investments.³

4.3 Africa

Chinese FDI in Africa has been historically heavily invested in natural resources – primarily hard and energy commodities (Cissé & Grimm, 2016). This has been concentrated in oil in Angola, Sudan, Equatorial Guinea, and Nigeria. Investment in mining (minerals and metals) has focused on Zambia, the Democratic Republic of Congo, South African, Zimbabwe, and Gabon. A key feature of Chinese investment in Africa up to the mid-2000s was the distinctive bundling together of aid, trade and FDI, coupling loans, infrastructure projects, and commodity exports. The costs to the host country would be covered through commodity exports to China (Kaplinsky & Morris, 2012) although, by the late 2000s, this was followed by standard commercial decision making and activities on the part of Chinese firms.

Following on from the Chinese government's Belt and Road Initiative, a significant chunk of Chinese involvement in Africa after 2010 has been engaging in infrastructure projects, undertaken to ensure that their natural resources investments were able to get to market. In the pre-BRI period, infrastructure investment was primarily to ensure that sourced raw materials would get back to China. However, with the BRI the aim is rather to open up markets. China has therefore been investing heavily in roads, rail, airports and ports. Infrastructure projects by value hence outweigh the annual value of Chinese mining activities. Chinese overseas engineering firms obtain over 30 per cent of global revenues from Africa, an average of USD 50 billion annually in recent years. Roughly 20 per cent of this revenue represents Chinese loan financed projects, and the rest comes from contracts obtained from private businesses, African governments, and non-Chinese international agencies.⁴ Enforcement of ESG standards vary by project owner (or funder).

Chinese mining firms operating in Africa can be divided into four main groups (Ericsson et al., 2020):

3 I am grateful to Deborah Brautigam for bringing this caution to my attention.

4 Deborah Brautigam, personal communication (5 February 2023).

- Artisanal/small scale private operators who are not easily identifiable and sit outside statistical data bases. They pay no attention to standards/regulations.
- Small mines, mostly privately held, with small but industrially oriented mines. They operate without Chinese state backing, optimistically investing to profit from Chinese metal demand. They mostly operate without any deep understanding of the mining industry but with some personal contacts in the host countries of operation.
- Medium sized mining companies, private or state-owned, operating a variety of types of mines. What binds them together is that they have closer links to the Chinese government, Chinese capital supply, and Chinese markets.
- Major mining companies, mostly state-owned, operating world class projects. Due to their close relationship to the Chinese state, as well as scrutiny from international NGOs, they are forced to adhere to international standards.

The private companies are profit driven, while the Chinese SOEs are also influenced by overarching Chinese state priorities and politics. In terms of value chain linkages, the mining product is mostly exported as raw ore or concentrates with no beneficiation in the host countries.

More recently there has been a shift from SOE infrastructural engagement towards Chinese private sector involvement in African economies. This has resulted in a diversity of Chinese firms operating in Africa. Chinese firms range from SOEs often engaged in infrastructure projects, large firms as part of GVCs, large firms supplying local markets, resource based mining firms, and MSMEs. Private sector Chinese firms have become a much greater part of the economic landscape of a number of African countries. Some are large enterprises. However, in terms of numbers (not value) the overwhelming majority of Chinese private sector firms are small and micro businesses that are locally incorporated, and hence only Chinese owned in the ethnic sense (Pairault, 2018). Most often, these are Chinese family migrants who invested the savings they earned locally as workers or brought with them from China. Hence some of these small firms are not really classifiable as Chinese outward FDI. However, in the eyes of most Africans they are seen as “Chinese” and are of social and economic significance since they present different opportunities, respond to varied pressures, and display diverse challenges.

It is unclear how many private Chinese manufacturing firms there are in Africa. Official Chinese data (MOFCOM, 2015) provide a sense of the variation of Chinese investment in Africa by virtue of Chinese FDI stock in 2015. Mining topped the list (27.5 per cent), with construction just behind (27.4 per cent), followed by manufacturing (13.3 per cent), financial services (9.9 per cent), and research and technology services (4.2 per cent). Yet official China data often diverges significantly from host country registers of firms as well as actual researcher field data (Brautigam et al., 2018). The most reliable data comes from fieldwork interviews with firms.

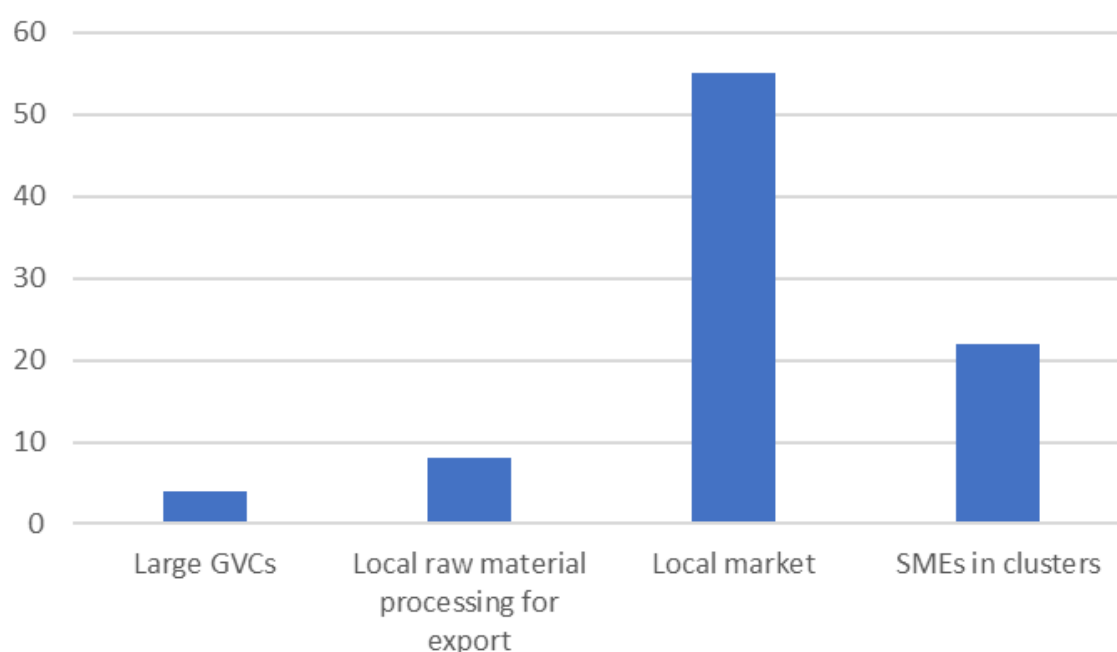
We know something about the range from field studies: In Ethiopia, a 2012 survey in the construction, manufacturing and service sectors found 45 Chinese manufacturing enterprises out of 69 Chinese firms. A 2013 survey in Uganda identified 7 Chinese manufacturing firms out of 42 Chinese enterprises in Kampala. In Kenya, a 2014 survey found 5 Chinese manufacturing firms out of 75 Chinese firms (Brautigam et al., 2018). The point to bear in mind from this sort of data is not the actual numbers since these can change dramatically over time and are not representative of the extent of Chinese involvement in an economy. What is rather significant is the range of economic activities and enterprises found in the survey, since this is more likely a reasonable representation of diversity.

A 2018 China Africa Research Initiative (CARI) study (Brautigam, et al., 2018) of Chinese manufacturing firms in Ethiopia, Nigeria, Ghana, and Tanzania, found a wide variation in types of firms, economic activities, markets being served, and operating sectors.

- Nigeria: Steel, furniture, housewares, building materials, plastic, food and beverages.
- Ethiopia: Building materials (cement, plate glass, gypsum board and recycled steel), textile/apparel, leather/shoes, plastic products, air filters, wigs, and consumer products.
- Ghana: Steel products, construction materials, paper/carton, plastics, pharmaceuticals, and artificial wigs.
- Tanzania: Textiles/apparel; plastic shoes, plastic utensils/bags, construction materials (steel, glass, gypsum, furniture, paint, bottled oxygen, aluminium tiles, leather, steel, agri-processing (tannery, cashews, honey, timber, and sisal).

In terms of differentiating Chinese firms by type, Brautigam, et al. (2018) used a mixed typology based on market (export through GVCs or domestic), product, and clustering of size (see Figure 3). This shows that the number of Chinese firms supplying the export market was relatively small whereas most Chinese firms were focused on the host country's local market. The other interesting conclusion to be drawn is that SMEs constituted a significant component.

Figure 3: Types of Chinese firms investing in Ethiopia, Nigeria, Ghana, and Tanzania



Source: Adapted from Brautigam et al. (2018)

Additional information on Chinese FDI in the apparel and textile sector in Sub Saharan Africa is available from detailed country studies in the academic literature.⁵ Chinese firms investing in the apparel and textile sector in SSA are elaborated on separately in Box 1.

5 Morris, Staritz and Whitfield have published a number of articles on the apparel/textile sector in Sub Saharan Africa, which include analysis of the role, dynamics and operations of Chinese firms. These have not been cited here in detail and only the most recent (Staritz & Whitfield's contribution to Altenburg et al., 2020) has been used to summarise the available information on Chinese firms in the apparel and textile sector in SSA.

Box 1: Chinese firms in the apparel and textile industry in Sub Saharan Africa

There is little mainland Chinese FDI in most of the SSA apparel/textile sector. The Chinese investment in Lesotho and eSwatini is from Taiwan. Kenya currently has no direct mainland Chinese investment in apparel. Two Chinese apparel/textile firms (Tooku and Future Garments) in Kenya did exist but they were sold to Taiwanese owners, and it is unclear the extent to which mainland Chinese management is involved. This complicates the issue somewhat, although in essence they are principally Taiwanese owned. Chinese involvement in the Mauritian economy is centred around longtime Chinese local residents who maintained contacts with Taiwan and mainland China. Ethiopia and Madagascar are exceptions, although the Chinese presence in this sector is not very significant.

There were estimated to be 21 Chinese firms operating in the Ethiopian apparel sector. The first wave of Chinese investment consisted of small private Chinese clothing firms producing for the local market. However, government policy promoting industrial parks resulted in a second wave which was either completely export oriented or producing inputs for clothing exporting firms. In studies conducted from 2014 to 2018, 13 Chinese firms were identified as engaged in different segments along the textile and clothing value chain, mostly dominant in yarn spinning and fabric production. In regard to product, end markets, firm upgrading, and local firm linkages, no systematic differences between the Chinese firms and other FDI apparel firms were found. Chinese apparel firms exhibited a high level of import sourcing from Chinese textile firms. As regards skill development, one Chinese firm recruited Ethiopian university graduates and sent them to China to be trained, after which they were appointed as middle level managers responsible for training local low and unskilled local workers.

As regards Chinese presence in the Madagascar apparel/textile sector, there were only 6 Chinese apparel firms (out of 74 in the sector). Most of the Chinese apparel firms had only begun production between 2016 and 2018. In addition, there were two Hong Kong based firms producing high quality items for the EU market.

Source: Author, and Altenburg et al. (2020)

A major aspect of ESG where Chinese firms in Africa have been criticised refers to insufficient employment of local workers. This has often been cited as a point of conflict between Chinese firms and local communities. Hiring local labour is a critical aspect of ESG standards. In the early stages of Chinese involvement in various construction projects in Africa, SOEs tended to depend on high numbers of imported Chinese workers. However, by the end of the last decade this had changed dramatically. Brautigam et al. (2018) argue that in general Chinese firms in Africa have created local jobs on a significant scale.

Sautman and Hairong (2015) reviewed existing surveys across multiple countries on hiring practices of Chinese firms and found that approximately 80 to 90 per cent of workers hired by Chinese firms are local. A study by McKinsey similarly found that 89 per cent of employees of Chinese firms in Africa were local (Sun & Lin, 2017). A Kenyan survey of 75 Chinese firms found that 78 per cent of full time employees were locals, and that over time this increased (Wang & Luo, 2014). A survey of workers employed by Chinese road construction firms in Ethiopia found localisation rates of 100 per cent for unskilled road construction workers and 90 for all workers (Oya & Schaefer, 2019). In Angola, Oya and Schaefer (2019)⁶ cited much lower localisation rates for Chinese firms engaged in road and dam construction (71 per cent) but this was attributed to labour market shortages prevalent there.

Calabrese's (2020) detailed discussion disputes that Chinese firms favour bringing in workers from China and do not create substantial local employment: "The numbers range from a few dozen jobs in small Chinese run mines in Tanzania [...] to 9,000 workers employed in a special

6 The large study by Oya and Schaefer 2019 provides a wealth of data on Chinese firms in Ethiopia and Angola.

economic zone in Zambia [...] to tens of thousands of jobs indirectly created in the cotton sector in Zimbabwe [...] A survey of over 60 literature sources conducted by Oya and the IDCEA team revealed localisation rates ranging from 10% to 99%, with a weighted average of 85% African workers in the total workforce" (Calabrese, 2020, p. 2).

However, the literature reviewed also shows that local workers are mostly in low or unskilled positions with managerial and technical positions dominated by Chinese. Oya and Schaefer (2019) found that Ethiopian construction firms hired local middle managers; a direct result of government policy controlling work visas. Chinese managers were employed in skilled financial and key technical positions requiring specialist skills.

A comprehensive view of how Chinese manufacturing firms exhibit aspects of the various dimensions discussed earlier in this paper can be found through analysing the data from a survey undertaken by CARL (John Hopkins University) in 2016/17. This study surveyed 149 Chinese manufacturing firms in four African countries (Ethiopia, Kenya, Nigeria, Tanzania) across a range of issues. This included investment value, employment (Chinese/local), ownership, local owner participation in operations, managers (Chinese/local), backward and forward linkages (with local, non-Chinese firms), industry association membership, and employee training (Brautigam, 2021).

The sampled firms were disaggregated by number of employees into small (<50), medium (50-250), large (> 250), and SOEs. The results are reflected below in Tables 4 and 5.

Table 4: Chinese firm profile and local engagement

Firm types	Ownership					Member local association	Local procurement		Upgrade local suppliers
	100% Chinese		Joint ventures (JVs)		JVs – local involvement				
Small	9	38%	15	63%	1	5	15	48%	2
Medium	29	50%	29	50%	2	9	29	48%	4
Large	16	37%	27	63%	5	9	32	71%	6
SOE	1	20%	4	80%	1	0	3	60%	1
Total	55	42%	75	58%	9	23	79	54%	13

Source: Author

Somewhat surprisingly, given the conventional enclave narrative regarding Chinese firm behaviour, the majority of Chinese firms (58 per cent) engaged in some sort of joint venture arrangement with local owners, with a similar distribution range across the various categories of firms. Clearly the common perception that Chinese firms operate in an enclave vacuum is simplistic. However, this was also clearly nominal local ownership, since of these JVs only 9 firms (12 per cent) expressed any local owner involvement in operational firm activities. This conclusion is reinforced by the number of Chinese firms belonging to local industry associations, with only 23 firms (16 per cent) indicating membership. Taken together, this demonstrates a level of shallow embeddedness of Chinese firms in the local economies.

Another index of local involvement can be expressed through analysing how these Chinese firms engaged with local suppliers. Table 4 shows a high level of procurement of goods and services locally, especially by large firms (71 per cent) and SOEs (60 per cent). However, as we know from the Zambian example, this form of local procurement may be illusory – local

middlemen operating as “briefcase businessmen” importing products supplied and purporting to be local suppliers (Fessehaie & Morris, 2013). This is reinforced by the fact that, when it came to assisting local suppliers to upgrade, the level of involvement of Chinese firms in the supply chain was low. Only 13 Chinese firms answered “Yes” to this question, of which 10 were medium and large firms.

Table 5 uses the survey data to show how the sampled Chinese firms have dealt with hiring of local staff (managers and workers), as well as modalities of training and upskilling them as an indicator of their commitment to ESG adherence in respect of internal firm processes.

Table 5: Chinese internal firm processes – employment and training

Firm types	Employment				Managers				Firm training			
	No. of Chinese workers		No. of local workers		No. of Chinese managers		No of local managers		On-the-job training		In-class training	Sent to China
Small	5	22%	24	78%	13	48%	14	52%	28	90%	3	0
Medium	10	8%	111	92%	52	88%	7	12%	58	97%	2	1
Large	46	6%	975	94%	43	96%	2	4%	37	84%	7	3
SOE	13	5%	394	95%	5	100%	0	0%	3	60%	2	2
Total	75	5%	1504	95%	113	83%	23	17%	126	86%	14	6

Source: Author

Table 5 shows that 95 per cent of workers employed by Chinese firms were locals, and this extends across SOEs (95 per cent) and medium/large (92 per cent and 94 per cent) firms. However, this does not mean that Chinese firms are deeply embedded in the local community, since the data for hiring local management is very much the polar opposite. In contrast to employing local workers, the number of managers employed are predominantly Chinese (83 per cent), and this trend also extends predominantly across SOEs (100 per cent) and medium/large (88 per cent and 96 per cent) firms. The data from the survey for small firms is out of line with the above trends but this may reflect definitional classification of management and workers. What “manager” exactly means in respect of small firms is unclear, and most likely differs markedly from their operational meaning in medium and large firms. Small firms also tend to use family members at both the management and worker level. They are also more likely to depend on local workers to supervise certain basic operations and call them managers. In terms of training processes, the sample shows that the vast majority of firms (86 per cent) depend on “on-the-job” training. Only 14 firms used formal classroom training – 40 per cent of SOEs do in-class training, while 16 per cent of the large firms do in-class training. Only a very small number of SOEs and large firms sent staff to China for formal training.

5 Viewing Chinese FDI through the ESG dimensions in country case studies

In this section, we move from a regional discussion of how Chinese firms related to ESG requirements on a region-by-region basis to a more detailed analysis of how individual Chinese firms incorporate ESG issues across all developing country regions. To analyse how Chinese firms in various sectors have operated across the developing world, this section uses the analytic framework of the three dimensions of supply chain relationships; internal firm operational processes; and social licence to operate.

Understanding these dimensions, through various country case studies, provides a possible foundation for throwing light of the following key questions:

- Is there a substantial gap between Chinese conceptions of ESG standards and Western regulatory frameworks facilitating such standards? If so, is it changing, and in which direction?
- Where has there been commonality in approach?
- Have approaches and behaviour of Chinese firms changed over time?
- In which areas have Chinese firms been most sensitive and vulnerable to external pressure?
- What has been the role of host country governments?
- How has China's changing ESG approach affected the behaviour of Chinese firms?
- Have local social forces played a critical role in altering Chinese firm responses?
- Where is there space for future alignment in development cooperation initiatives?

In discussing how Chinese firms relate to these three dimensions of ESG across all developing countries, the subsections below contain short examples of Chinese firm behaviour in various developing country contexts across regions, as well as longer illustrative case studies which provide more detail. In doing so, one is able to avoid making a static judgement based simply on one example, in favour of a dynamic perspective based on Chinese learning as firms navigate their way through the multifaceted forces at play in various developing countries.

5.1 Chinese firms and supply chain relationships

Table 6 sets out several useful and illustrative case studies pertaining to how Chinese firms have related to this ESG dimension of supply chain relationships. The table is constructed with summaries of each case from a variety of relevant publications.

Table 6: Chinese firms and supply chain relationships

Country	Sector	Supply chain relationships
Zambia	Copper mines	<p>A large Chinese copper mining company (CNMC) operated very differently in respect of its supply chain. Unlike the traditional Western oriented mining companies, it adopted a stand-off, arm's length and purely market based approach to local suppliers without depending on building long term trust relationships with local suppliers. This meant that it was easier for local suppliers to win contracts and enter the Chinese mine's supply chain, but it also had the negative effect that no upgrading support was offered to these local suppliers. A direct consequence of this "arm's length" approach was that this Chinese firm exhibited little interest in taking note of and meeting environmental, safety and health (ESH) requirements. The Chinese mine regarded assistance and support for local input suppliers as the responsibility of government and falling into the realm of inter-government matters between the Chinese and Zambian government. Hence it treated supporting supply chain linkage relationships as belonging to diplomatic and political spheres, rather than the economic value chain responsibilities of lead firms.⁷</p> <p>Source: Fessehaie & Morris (2013)</p>
Ethiopia	Leather footwear	<p>The Ethiopian government has intervened in the leather value chain in an attempt to increase local supply of better quality skins and hides being supplied to leather tanneries instead of being exported. This has partly worked but the problem lies in the implementation of the policy. The aim of the government is also to facilitate local shoe manufacturing. Ethiopia's export of leather shoes, primarily to the USA, soared rapidly after three large Chinese shoe factories, Huajian, New Wing, and George Shoes, began their Ethiopian operations in 2012. Huajian used local tanneries to make 60 per cent of its shoes. It sources from 3 Ethiopian tanneries and an Indian locally owned tannery. It does not source from Chinese owned tanneries which do not support local shoe production and instead export their leather to China. Although Huajian produces high-quality shoes for export only, it also has a workshop to manufacture shoe production materials in Ethiopia. When it had product surplus to requirements for its factories, it used to sell some shoe materials (lasts and moulds) to local small and medium sized Ethiopian shoemakers selling on the domestic market. Informal learning processes emerged between local shoemakers and Chinese factories. This led to some local shoemakers upgrading their own factories in line with more competitive production operations. This entire relationship helped to significantly support and expand the local shoemaking sector. However, post 2017 this practice was stopped by Ethiopian government customs officials claiming that Huajain was in violation of duty exemptions for exporting 100 per cent of its products by servicing the domestic shoe materials market. These customs officials clearly did not understand the shoe value chain and therefore the importance of upgrading local producers.</p> <p>Source: Xiaoyang (2019)</p>

⁷ This is also reflected in the survey data in Table 4 which shows that only a small number of Chinese firms engaged in, or felt responsible for, upgrading local suppliers.

Country	Sector	Supply chain relationships
Ghana	Manufacturing Plastic, metals, paper cartons, recycling	<p>A number of SME Chinese firms operated in four sectors manufacturing items and selling into the local market.</p> <ul style="list-style-type: none"> • Plastic recycling using processed pellets producing bags is dominated by small Chinese firms. A few also manufactured plastic buckets and chairs. • Chinese firms recycled scrap metal into iron rods which were sold to the local construction industry as building materials. • Chinese firms produced paper cartons from recycled paper waste. • Chinese firms used imported inputs produced various items (e.g wigs). <p>Plastic recycling has led to a plastics recycling/manufacturing cluster of Chinese firms. Local supplier linkages are poor. Employment of local labour is high (90 per cent) but not in supervisory or technical positions. The government played no supporting role in any activities.</p> <p>Source: Xiaoyang (2016)</p>
Tanzania	Manufacturing Plastic recycling	<p>In 2018, 60 (SME) private Chinese firms were engaged in plastic recycling, granulation, and manufacturing plastic products for the local market: 25-30 produced plastic woven sacks and shopping bags using locally recycled materials; 5 concentrated on granulation; 10 Chinese companies manufactured plastic slippers. Most Chinese plastic factories used locally recycled waste plastics. Chinese plastic firms concentrated on lower end recycling and manufacturing activities, facilitating stronger local linkages, and stimulating local supply and growth of plastic recycling activities. Training of local workers involved general knowledge about plastic materials, basic sorting techniques, and operating shredding machines. Local Tanzanian workers left to set up their own trash collection centres as suppliers to Chinese firms. Chinese buyers taught their suppliers knowledge about waste plastic sorting and cleaning techniques. Some suppliers also set up their own recycling plants/workshops in rural Tanzania to reduce transport costs, buying used machines from the Chinese firms or new Chinese/Indian cheap machines. With technological and financial support, plus information about GVC opportunities, Chinese firms facilitated knowledge transfer to local suppliers. A small number of suppliers also set up manufacturing plants of their own. The Tanzanian government only played a small role in supporting either the Chinese firms or their local suppliers.</p> <p>Source: Xia (2019a, 2019b)</p>
Argentina	Oil	<p>Negotiations over oil royalties, environmental, and social commitments take place at the provincial government level in Argentina. This arrangement has negative and positive outcomes. The drawback is that it provides an incentive for provincial government negotiators to trade off short term royalties against long term environmental commitments. However, it also creates an opportunity for local civil society groups to enter into the negotiations. They have much more access to the negotiating parties than happens at the national level. A major spin off was that this process allowed groupings representing small business to successfully press for foreign oil</p>

Country	Sector	Supply chain relationships
		<p>companies to develop more linkages with local suppliers as an outcome of the negotiations. One critical outcome was the SMEs of Golfo San Jorge programme to build capacity for local small businesses and incorporate them into the Pan American Energy (CNOOC's joint entity with BP) supply chain. This kind of cooperation was hugely facilitated by, and seems to require, the active presence of the provincial government officials to help recently arrived foreign investors connect with local organisations.</p> <p>Source: Ray et al. (2015)</p>

Supply chain development programmes are an integral part of the systemic competitiveness of GVCs, especially when dealing with local suppliers in host countries. In order to maintain competitiveness, lead firms understand that it is not good enough to drive requirements down their supply chain, they also have to ensure that trusted local suppliers in their supply chain who do not meet these standards receive support and assistance to upgrade their processes to the required level. Lead firms therefore routinely take responsibility for providing or sourcing training and other forms of support to their suppliers as well as to the local industry. The need to take a broader approach going beyond the individual large firm is even more complicated, as well as being critically necessary, when economic and technical value chain parameters have been expanded to include environmental, social, and governance standards. However, Chinese firms are reliant on government regulatory and legal frameworks to facilitate their own supply activities. The following detailed case study on the Chinese copper mining company in Zambia (see Box 2) illustrates some of the crucial issues in this ESG dimension, addressing how Chinese firms have understood responsibility for supporting upgrading of local suppliers in their value chains.

Box 2: Chinese copper mine and responsibility for supply chain development

In order to secure raw materials supply, China invested in the Zambian copper extractive sector acquiring control over copper mines, smelters and processing industries. The Chinese copper mining company (CNMC) operated differently with respect to value chain linkages when compared to traditional Western oriented mining companies. The differences centred around how this Chinese mining value chain operated with respect to local production linkages, ESG standards, corporate support for upgrading local suppliers, and corporate and state. The particular modus operandi of the Chinese copper mining company demonstrated a dual perspective, combining state driven objectives with market based profit maximisation.

Traditional mining companies tended to outsource activities outside their core business and, whenever possible, preferred a localised supply chain. In comparison, the Chinese mining company was more vertically integrated. Traditional buyers selected suppliers on the basis of well-established procurement procedures based on selective tenders, and long standing relations of trust in being able to deliver required inputs.

Entry barriers to the Chinese supply chain, on the other hand, were low. Chinese buyers were willing to try new products and new suppliers and had low brand loyalty. Hence, local suppliers found it easier to gain access to the Chinese copper mine supply chain than to that of the traditional mines.

Traditional mining firms placed great value on learning and innovation capabilities of their suppliers. By emphasising innovation, traditional buyers created incentives for suppliers to innovate and upgrade, as these efforts would be rewarded in the market. The Chinese firm attached less weight to learning and innovation capabilities. Because they found it difficult to develop a trust based relationship and to engage in problem solving jointly with suppliers, the Chinese buyer failed to recognise the benefits of such dynamic capabilities. This reduced incentives for local suppliers to upgrade and innovate.

Both Chinese and traditional mines were dissatisfied with the performance of the local supply chain. However they dealt with this problem in a contrasting manner. Traditional lead copper mining

firms set highly detailed and demanding standards for core suppliers, and intensively monitored their supplier's performance. To achieve this, they put in place programmes to engage and cooperate with their suppliers – both directly and indirectly. In contrast, the Chinese copper mine's relationship with its suppliers was fundamentally market based. Opening up entry opportunities to suppliers therefore did not translate into strategies facilitating or supporting upgrading of their local suppliers. The Chinese copper mine hence did not provide any direct or indirect assistance to suppliers.

Underlying the variance in governance types between traditional and Chinese buyers was a different level of internalisation of supply chain and community development. The Chinese mining company relied heavily on government-to-government intermediation for such issues external to its direct mining operations. It regarded responsibility for localisation of linkages, and upgrading, as the responsibility of the Zambian government to be negotiated and formalised between the Chinese government and the Zambian state. Conversely, traditional lead commodity mining firms viewed local supply chain development and community involvement as part of their corporate social responsibility activity, including the need for their suppliers to meet health, safety and environmental standards.

The Chinese supply chain dynamic was predominantly market based and displayed a failure to upgrade their local suppliers through building long term obligational relationships. This stemmed from the way that Chinese SOE FDI differentiated the role of state institutional support structures vis-à-vis corporate support strategies. Running the company was regarded as its responsibility, whereas engaging with local suppliers to assist them upgrade was a political intervention requiring state-to-state bilateral agreements. Consequently the Chinese mine did not internalise, nor prioritise, supply chain upgrading requirements within its corporate strategy and ESG responsibilities. This detracted from the opportunity for local industrialisation. It also undermined its supply chain management effectiveness, with consequent impact on its own competitiveness.

Source: Fessehaie & Morris (2013)

There are a number of lessons to be derived from the above case studies in respect of supply chain relationships: Governmental regulatory and legal frameworks are crucial to provide a scaffolding for Chinese lead firms in understanding supply chain responsibility and initiating supporting activities. There is an important role for the Chinese government in providing such a learning and enabling environment for Chinese firms operating abroad. Host country governments also have a crucial role to play in this regard – both negatively as the Ethiopian shoe example shows, and positively as the Argentinian example demonstrates. If a host country government provides a policy framework and regulatory environment, Chinese firms are likely to fall into line. This is especially the case if the host country regulations are aligned with international regulations and standards. It is not however possible on the basis of the case studies to conclude whether international standards on their own are sufficient to ensure standards conformance on the part of Chinese firms. The Zambian case also illustrates that Chinese firms regard supply chain assistance as extraneous to their direct economic responsibilities. They may see the importance of this but are more likely to view its responsibility as lying on the plane of inter-governmental cooperative agreements, which brings us back to a possible development cooperation alignment angle to pursue with the Chinese state and host country governments.

5.2 Chinese firms and internal company processes

Table 7 sets out a number of case studies on how Chinese firms have dealt with the hiring of local labour, as well as training and upskilling them. The table is constructed with summaries of each case from a variety of relevant publications.

Table 7: Chinese firms' handling of labour, training and operations

Country	Sector	Internal firm processes – labour, training, operations
Rwanda	Apparel	<p>C&H Garments was set up in 2015 in Kigali. The vast majority of employees were locally recruited. Over 70 per cent of the local workers were women. They were all trained by experienced Kenyan personnel from C&H's factory in Nairobi who spoke Swahili. Some trainees were also sent to China to the headquarters plant to acquire specialised garment manufacturing skills. Most mid-level managers in human resources and accounting were locally recruited and received appropriate training. Local office managers hired were required to have a college degree.</p> <p>Source: Eom (2018a, 2018b)</p>
Rwanda	Apparel	<p>In 2019, Pink Mango C&D set up a factory in the Special Economic zone in Kigali. In 2022, the firm employed 3,000 local workers. Skills training and the upgrading of local staff is a focus of this Chinese firm. The factory has also established some social services on site to assist women workers – a kindergarten as well as a retail shop selling goods at affordable prices.</p> <p>Source: Xinhua (2022)</p>
Tanzania	Apparel	<p>Tooku Garments, a private firm, is the only private Chinese investment in Tanzania's garment industry producing jeans for international brands including Levis. It was set up in 2012 in Dar es Salaam's export processing zone. Employment increased from 500 local workers to over 2,700 within five years. In 2017, the factory was sold to a Taiwanese owner, with most of the middle management remaining unchanged. This complicates its classification as a purely Chinese owned enterprise.</p> <p>Source: Xia (2019c)</p>
Angola	Construction	<p>In a 2019 survey of Chinese construction firms, the Chinese firms created large absolute numbers of jobs, especially in subsectors such as road construction. Angola's skill shortages made localisation more difficult. However local hiring rates were on average 74 per cent of the workforce, compared to 88 per cent in domestic and foreign non-Chinese firms. Chinese firms tended to employ poor migrant workers from the centre-south of Angola with lower education levels and limited work experience. These workers were housed and fed in company dormitories. Written contracts were the exception, and labour relations were characterised by informality. Worker wages were above the sector minimum wage. Training of workers in Chinese firms was low.</p> <p>Source: Calabrese (2020)</p>

Country	Sector	Internal firm processes – labour, training, operations
Kenya	Construction skills training & development	<p>AVIC International is a Chinese SOE. In Kenya it is a major construction contractor and heavy machinery provider, with major investments in the area of local skills development. AVIC treated local skills development as a top business priority, driven by both pragmatic and social considerations. It used skills development programmes as a marketing tool to project itself as a socially conscientious company. AVIC started skills development programmes in Gabon, Ghana, Zambia, and Uganda, and was negotiating to launch similar programmes in Côte d'Ivoire, Senegal, Tanzania, Benin, Namibia, Republic of Congo, and Cameroon to win additional contracts.</p> <p>AVIC has 4 major skills development projects in Kenya, characterised by a uniquely flexible approach: i) A capacity building project attached to a heavy equipment provision and maintenance contract for the Kenya National Youth Service (NYS); ii) An equipment provision and capacity building contract for Kenyan vocational training institutions; iii) The Africa Tech Challenge (ATC), a novel machining skills competition whereby vocational students competed for a USD 100,000 machine parts contract; and iv) The Sino-Africa Industrial Skills Upgrading Centre (SAISUC), for Kenyan vocational education instructors.</p> <p>Project goals were co-created with stakeholders, and implementation was flexible, allowing outcomes to go beyond timelines set out at the start of the project. AVIC regarded this as a Chinese approach toward development that dispensed with Western procedural rigidity. Instead, it built in a more flexible, unpredictable methodology to uncover barriers and engaged in social learning. This is why AVIC finished up with four skills development customised programmes instead of one programme. For example, the youth project led directly to outfitting 10 vocational schools with suitable machinery. When it became apparent that the schools were not using the new machinery, the machining skills challenge programme was created. This revealed a problem of insufficient vocational teaching skills capacity; hence the training programme to upskill vocational teachers.</p> <p>In terms of measuring impact, students and teachers were very favourable. However, tangible outcomes were mixed. Equipment was successfully commissioned, delivered, and installed. Instructors were trained before equipment delivery. Yet effective equipment utilisation by students in the outfitted schools was less successful. Chinese teachers deemed their successful learning as too low.</p> <p>Source: Sun & Lin (2017)</p>

Country	Sector	Internal firm processes – labour, training, operations
Ethiopia	Industrial zone Manufacturing Apparel/textiles, footwear/shoes, auto/parts, food processing, construction materials	<p>The Eastern Industrial Zone is a special economic zone (SEZ) for manufacturing firms set up by private sector Chinese capital. In 2018, it comprised 31 operational enterprises focused on garments, textiles, footwear, construction materials, auto assembly/parts, and food processing of mostly small, private investments. Overall, they recruited many more Ethiopians than Chinese expatriates, contributing a much higher workforce localisation rate than Chinese SOEs in Ethiopia. The workers were young (16 to 28 years old), 80 per cent single, with a high degree of education, mostly from TVET (technical and vocational education and training) schools. In a sample survey of workers, 61 per cent reported having received employer sponsored skills training. Garments/textiles and footwear workers received the most training. Exporting companies engaged in more training than those aiming at local market. For the vast majority of workers, this was their first job.</p> <p>Source: Fei (2018a, 2018b)</p>
Ethiopia	Leather	<p>Chinese tanneries employed local workers for low skilled jobs. They did not engage in skill training. Technical and managerial positions were occupied by Chinese employees. A small number of locals were in human relations positions as intermediaries for communicating between local workers and management.</p> <p>Source: Xiaoyang (2019)</p>
Kenya	Manufacturing Construction Logistics, Tourism, Information Communication Technology Trade	<p>A comparison of 11 Chinese and 9 US firms in respect of labour relations revealed the following: Chinese firms were active in construction, logistics, trade, ICT (information and communications technology) and tourism. US firms were active in energy, logistics, ICT, finance, renovation and insurance. Chinese firms employed 78 per cent local workers whilst firms from the US employed 82 per cent. Most local workers were employed in low- or semi-skilled positions. Very few were in managerial, supervisory, or technical positions. Chinese companies tended to operate with more extensive degrees of informality than the US firms – for instance, doing business without formal policies governing human resources management. However, the data is skewed as Chinese firms were mostly in the construction sector employing large numbers of casual workers. Neither Chinese nor US firms related to unions.</p> <p>Source: Rounds & Huang (2017)</p>
Nigeria	Manufacturing	<p>A 2016 survey of 16 Chinese manufacturing firms in Nigeria focused on technology transfer and learning. It concluded that the influx of Chinese firms were private small and medium size enterprises across a range of diverse light manufacturing sectors. There was little evidence of sectoral clustering despite existing industrial zones. A high employment of local Nigerians was prevalent – for example, the average utilisation of local labour over 16 firms in the sample was 85 per cent. They were mostly in factory positions rather than managerial or technical positions which were occupied by Chinese. Formal skills training was low. Training depended on rudimentary and informal on-the-job training, with a few exceptions mostly in</p>

Country	Sector	Internal firm processes – labour, training, operations
		<p>teaching welding skills. Backward linkages from the Chinese firms to local Nigerian firms was low.</p> <p>Source: Chen et al. (2016)</p>
Peru	Mining	<p>Two Chinese mining companies – Shougang Hierro Peru, and Aluminum Corporation of China Limited's (Chinalco) – operate in Peru. A government commission found that Shougang reneged on its commitment to invest USD 150 million in the community, only spending USD 35 million and paying a USD 14 million fine instead. Shougang brought in Chinese labourers and reduced the work force from 3,000 to 1,700. Shougang was fined repeatedly for breaches of health, safety, and environmental practices. Workers complained that wages were the lowest in Peru's mining industry, and living conditions were also very poor.</p> <p>On the other hand, Chinalco, with an open pit copper mine Toromocho in Morococha, operated very differently. It followed a local hiring policy and eschewed relying on imported Chinese workers. Only a handful of Chinalco's employees in Peru were from China – some on long term contracts as company executives and others posted as short term engineers and translators. For the rest, it employed Peruvian workers. Instead of bringing its own subsidiary from China, Chinalco hired CCC Del Peru SAC (the subsidiary of another SOE, China Communications Construction Company) located in Peru, to carry out the mine's expansion. Locals were thus also employed by Chinalco's contractors in construction, transportation, or maintenance. These local workers were fixed term (a few months or years) and said to be underpaid. Chinalco hired college degreed professionals, to work either in its Lima headquarters or at the mine on permanent contracts with access to comprehensive health care, insurance, and other benefits. Despite their local hiring policy this, nevertheless, fuelled discontent and frustration among local unskilled workers.</p> <p>Source: Kotschwar et al. (2012); Zhu (2021)</p>
Ecuador	Oil/petroleum	<p>In 2008 and 2010 the Ecuador government passed a very progressive package of general labour protection laws which also covered the Ecuadorean petroleum sector. These strictly curtailed usage of subcontracted labour in order to eliminate the disparity between direct and subcontracted workers. "Complimentary" work (e.g. security and custodial services) was exempted. These measures were further supported by the 2010 Hydrocarbon Law (2010) in the oil and gas sector, which required foreign companies to hire Ecuadorean workers for 95 per cent of unskilled and 90 per cent of skilled jobs. The law also included an employee profit sharing scheme, which also covered contract workers. This combination of legal measures profoundly impacted the most important sources of labour conflicts involving foreign investment projects (including Chinese): i.e. the utilisation of subcontracted workers as well as differing working conditions between directly hired and subcontracted employees. This resulted in the Chinese company 'Andes Petroleum' (55 per cent owned by CNPC and 45 per cent by SINOPEC) complying with the labour protection</p>

Country	Sector	Internal firm processes – labour, training, operations
		<p>measures. Indeed it appears the company was able to use this compliance to try and deflect attention from the fact it was heavily embroiled in major community conflict over community issues (environmental and an indigenous peoples dispute). As a result of this government regulatory framework Chinese oil companies in Ecuador showed they are capable of operating with almost entirely Ecuadorean staff.</p> <p>Source: Ray et al. (2015)</p>
Argentina	Oil/petroleum	<p>In an effort to ensure the social licence to operate, the Chinese oil company Sinopec signed an agreement with the local government ensuring that only workers with two years residency in the Santa Cruz province will be hired. An additional process of facilitating learning between more experienced and more recent investors process of significantly contributed to training and capacity building in Argentina. Sinopec, when compared to CNOOC, has a relatively poor environmental record. The latter has benefitted from partnering with, and learning from, British Petroleum which through its long history of foreign investment has been the recipient of global scrutiny for its environmental record. Both of these Chinese firms are SOEs. However CNOOC has benefited from a dynamic partnership with a more experienced investor and moved forward on ESG issues while Sinopec depending only on its own resources has remained static.</p> <p>Source: Ray et al. (2015)</p>
Ethiopia	Shoes	<p>When it commenced operations in 2011, the largest Chinese footwear factory (Huajian), imported 300 technicians. It also employed 600 local workers who underwent specific on-the-job training. This ratio of one third Chinese personnel employed dropped dramatically over the following years as Ethiopian workers started to replace more skilled Chinese expat workers. By June 2018, the factory employed 330 Chinese and 7,050 locals – of the total workforce 95.5 per cent were local workers and 4.5 per cent were Chinese. With respect to training, between 2011 and 2018 Huajian sent 500 Ethiopian workers to China for extensive training in shoe manufacturing. The firm also set up a multi-level training system which operates inside the factory to undertake on-the-job training programmes. Initially all machine operators were Chinese, with locals undertaking unskilled manual work. After three years, all Chinese operators were replaced by locals, except for one supervisor.</p> <p>Source: Xiaoyang (2019)</p>

Box 3 details a case study of apparel in Rwanda which illustrates a focused approach to the issues of local hiring tied to training programmes and opportunities created for upskilling and the occupational upgrading of local workers.

Box 3: Two Chinese apparel firms in Rwanda

In early 2015, C&H Garments, a Chinese firm established a subsidiary factory in Kigali intending to also facilitate technology transfer and training. This was based on the Rwandan government's industrial policy commitment to expanding manufacturing and the training/upskilling of local workers.

The Government's industrial policy was based on the New Employment Program with four pillars:

- Employability skills development: This equipped middle level technicians with employable skills through short general education courses and localised programmes targeting dropout students.
- Entrepreneurship and business development: This helped technical vocational education and training graduates to develop their own businesses.
- Labour market interventions: This used public works projects to develop skills of workers.
- Coordination, monitoring, and evaluation: This aimed to maximise impact by avoiding duplications.

In addition, the government significantly raised taxes on used clothing/footwear to facilitate local production. It also removed import duties on textiles and leather, and boosted export taxes on raw hides.

C&H had been operating in Kenya for seven years, and also owned a factory in Ethiopia, so it was accustomed to operating in Africa. C&H partnered with the global standards certification initiative Fairtrade, which commits members in the value chain to creating sustainable economic opportunities for producers and workers. Fairtrade focuses on producers at different levels of the chain, emphasising health and safety standards, decent wages, and investment in local communities and businesses. C&H's partnership with Fairtrade used the brand name: "Made in Rwanda Fairly". The factory aimed at servicing the export market (80 per cent) and the local market (20 per cent).

A five year business plan between C&H and the Rwandan government set out reciprocal commitments: C&H would meet a minimum number of exports per year and hire local employees. The government would provide potential high quality workers and cover most of the labour training costs. C&H would provide the training programme and space within the existing factory.

The programme started in 2014 with 200 Rwandan employees, 3 Chinese, and 10 Kenyan trainers from C&H's Nairobi plant. In 2015, an additional 300 Rwandans (200 of them women) were trained in the six month, partially salaried, training programme in sewing machinery, cutting fabric, trimming garments, and checking finished products. The successful trainees formed the factory core workforce when it opened in 2015. In 2016, an additional 600 Rwandan employees were trained. In addition, 30 trainees were sent to China – half to acquire specialised garment manufacturing and quality skills to meet global quality standards, and the other 15 to learn embroidery skills which was also established as a core competence. Most trainees have been offered employment contracts, and at least 70 per cent are women. After five years there were about 3,000 local workers employed. Some workers have moved on to set up their own manufacturing plants in Rwanda with the support of C&H to facilitate technology transfer. Training of workers, included an in-factory programme dedicated to managers, imparts a more modern work ethic and discipline to local workers still learning about the dynamics of working in a factory. This was also combined with incentivised competitions between different work teams.

C&H also trained some local middle level managers – some in production and office work, many in charge of human resources and accounting. Production managers supervising assembly were required to have six years' experience and be able to speak English. A college degree was a pre-requisite for hiring office based managers. Training for operational managers was intense – covering managing the assembly line, technical aspects, different ways of stitching, styling, recording output, planning, and overseeing quality control. Training was also most often done by managers from the East African region who understand local customs, norms and practices and spoke Swahili. For example, a Kenyan manager from the Nairobi operation was in charge of quality control training.

In 2019, Pink Mango C&D, a global Chinese group, invested in Kigali's Special Economic Zone. The factory is a joint venture between Pink Mango and C&D Products. Pink Mango started with 1,200 workers and by 2022 was employing more than 3,000. The company produces branded garments sold to global networks and uses African fashion designers, not only for the local market, but also for export.

Skills training and upgrading was a key component of Pink Mango's operations. For example, one of the local managers (Fabrice Tuyishime) described his career trajectory based on such training: "When I got employment in this factory, I worked hard with passion to realise my dreams. Due to my hard work after one year, I was promoted to a supervisor position. I performed my duties exceptionally well during my tenure as supervisor, and now I have been promoted to production manager".

The workers at Pink Mango interviewed said that wages were comparatively good, plus there was an attendance as well as a target bonus. Pink Mango's social responsibility policy led to the creation of a factory based retail shop which sold goods to factory workers at affordable prices. Pink Mango also installed a kindergarten for babies and young children inside the factory. The kindergarten provided children with comprehensive services for their early childhood development growth. It also reduced the time needed by young mothers to go back home to breastfeed, hence increasing work productivity, while assuring the safety of their children.

Sources: Eom (2018a, 2018b); Benissan (2022); Xinhua (2022)

The ESG dimension is focused on how Chinese firms have dealt with direct responsibility and control of the internal aspects of firm operations – hiring, training, and upskilling/upgrading job positions – in respect of workers in the host countries they were operating within. The overall lessons to be drawn from the above case studies shows that Chinese firms hired local employees in the host countries in overwhelming numbers. Private sector manufacturing firms regarded it as in their economic interests to do so although they may well have also been responding to host country governments and local community pressure. To some extent, host country legislation and regulatory frameworks requiring localisation of employment assisted in the process – especially in far flung resource extraction operations in Latin America undertaken by Chinese SOEs. However, despite the preponderance of local hiring practices, locals were all too often restricted to low and unskilled positions, with some movement into semi-skilled operator jobs in manufacturing firms while most of the technical and managerial positions were occupied by Chinese personnel. Training and upskilling of local employees did occur, but the evidence is mixed as to its generality across Chinese firms. There were exceptions in this regard and these examples provide important lessons to be incorporated into development cooperation policies and frameworks.

5.3 Chinese firms and the social licence to operate

The series of case study examples in Table 8 illustrate the ESG dimensions of how Chinese firms have engaged with local communities, responded to pressure from them, and taken account of their social, environmental and economic needs in host countries. The table is constructed with summaries of each case from a variety of relevant publications.

Table 8 : Chinese firms responding to social engagement with local communities

Bolivia	Mining	<p>In 2010 a Chinese company, Jungie Mining, established a joint venture with the local Alto Canutillos mining cooperative to mine tin in Tacobamba. The proposal was to build a processing plant and tailings dam which created opposition from the local community. To ameliorate the conflict the state-owned COMIBOL mining company donated land to shift the facility 25 miles away. A public consultation had revealed that the community accepted its presence there. The result was enhanced cooperation between the investors, the government, and the local community, and prevented a major potential source of conflict. Bolivia has shown that it is possible for Chinese mining companies and local SOEs to collaborate to honour communities' decisions about where processing plants should, and should not, be located.</p> <p>Source: Saravia López and Rua Quiroga (2015)</p>
Ecuador	Mining	<p>The Chinese mining consortium (CRCC-Tongguan) in Ecuador, has gained a negative reputation after a great deal of local pushback from affected indigenous communities. CRCC-Tongguan co-opted select local figures, colluded with national officials to sidestep environmental and sociocultural safeguards, and used national authorities to coerce local people into relocating. The accusation has been that this process turned Ecuadorian national elites against local indigenous communities, used “divide-and-conquer” tactics, entrenched existing political cleavages, and undermined community cohesion. The Canadian mining companies, which the Chinese Consortium acquired, had previously negotiated directly with local communities, as well as national elites and the Ecuadorian government. However, CRCC-Tongguan abandoned this local engagement strategy and only dealt with the national government with the aim of obliterating local resistance. The strategy led to a weakening of local social and environmental safeguards, erosion of consultation processes, and the forced displacement of local communities. The result was a loss of support for the Chinese consortium among local communities.</p> <p>Source: Quiliconi & Vasco (2021)</p>
Ghana	Mining	<p>Akoko Goldfields (controlled by Golden Sunshine Mining) demonstrated an inadequate approach to local community engagement and establishing a social licence to operate. When confronted with local community opposition over environmental pollution of the local river and a demand for land compensation, Golden Sunshine responded by hiring two public relations experts to engage with the community and come to an agreement about compensation. This was in marked contrast to a Canadian company Newmont with long experience of operating in Ghana. Newmont created a collaborative governance platform in which the company and the community negotiated. The establishment of a governing “Social Responsibility Forum,” and the explicit delineation of the rules, regulations, and by-laws, allowed Newmont to manage strategies of inclusion and implement a Social Responsibility Agreement more easily. The forum created a mechanism for local community members to have a formal channel to propose, discuss, and approve various development initiatives. Newmont also created a Community Development Unit to disburse</p>

		<p>economic gains to the local community. Golden Sunshine relied solely on its public relations officers to manage community engagement in an ad-hoc manner. It clearly did not understand the importance of continuous, collaborative engagement with a community forum/platform.</p> <p>Source: Jiao (2017)</p>
Myanmar	Mining	<p>The Chinese mining company, Myanmar Wanbao Mining Copper Limited, was faced with local demands around mining operations. Issues included land compensation for expropriated land to be used for mining, lack of environmental and social assessments, disruption of culturally significant religious sites, and allegations of forced land confiscation which resulted in protests led by monks and farmers. Depending on the national political situation, Wanbao vacillated in how to deal with the local community to gain the social licence to operate. Finally, Wanboa agreed to use a specialised Chinese risk advisory firm to facilitate a new relationship with the local community. This enabled it to reach a settlement and continue mining. (Gong, 2022). Wanboa set up a unique contribution plan for the villagers and the community, which invested in infrastructure, built hospitals, and developed local SMEs, and was able to win the community's support.</p> <p>Sources: Gong, (2022); Samah el-Shahat, China-i (interview, 15 December 2022)</p>
Peru	Mining	<p>In 2007, Chinalco inherited a commitment to relocate the 5,000 residents of the existing mining city of Morococha to make way for the Toromocho mine construction. Morococha's water and soil had been badly contaminated as a result of decades of mining. The move was largely voluntary. As a result of dialogue and negotiation between community members, their elected authorities, the central government and the company, Chinalco offered each moving family title deeds to their new home in Nueva Morococha, but the local authority was dilatory in processing these which caused problems. Residents who resettled in Nueva Morococha also complained about the poor housing conditions in a humid, earthquake prone zone. Economic conditions in Nueva Morococha did not improve significantly as locals wished. In fact, it became more difficult for less skilled and unskilled locals to make a living in the open pit mine due to their lack of professional training and experience. This led to multiple protests.</p> <p>Source: Sanford & Chonn (2015)</p>
Ecuador	Oil	<p>Ecuador has a strong legal framework to limit the social, environmental, and economic risks associated with the oil sector, as well as recognising the rights of nature. Oil projects are required to conduct environmental impact assessments (EIA) reports, consult with the local community, respect indigenous territory, hire Ecuadorean workers, create share profits schemes, and pay substantial taxes to fund public investments in affected communities. CNPC and Sinopec are Chinese SOE oil companies operating in Ecuador under the names of Andes Petroleum and PetroOriental. In 2006, CNPC and Sinopec jointly purchased the Ecuadorean assets of the Canadian firm Encana. In the process, they inherited Encana's uneasy relationship with community leaders and</p>

		<p>environmentalists. These included four large scale strikes during the pipeline construction. These four strikes separately involved environmental activists attempting to scrap the project, workers pursuing pay rises, and community leaders seeking local jobs and the setting up an offset fund over the economic effects of expected environmental damages. Andes Petroleum and PetroOriental have tried with some success to overcome the Encana history and establish more positive relationships with the government and civil society. Andes and PetroOriental have encountered community conflict facing demands for more local job opportunities and other local investment. After extensive negotiations, An agreement finally emerged from extensive negotiations which set up a social fund for local job creation and credit programmes. The contentious issue of local employment has been largely eliminated as a result of the promulgation of the 2010 Hydrocarbon Law which required petroleum companies to hire Ecuadorean staff for 95 per cent of unskilled positions and 90 per cent of administrative and technical positions. Having said that, Andes Petroleum and PetroOriental only hire workers who speak English, thereby dramatically limiting the pool of potential local workers.</p> <p>Source: Ray & Chemienti (2016)</p>
Ecuador	Oil	<p>The exploration and extraction of oil in the Ecuadorian Amazon has created conflict with local indigenous people over the past decade and also threatens the long term biodiversity of the region. To deal with this issue and attend to Ecuador's ballooning national debt, the governments of China and Ecuador are discussing a "debt for nature" swap deal which aims to see portions of debt cancelled on the condition of funds being allocated for conservation investments centred on reducing deforestation and increasing reforestation.</p> <p>Source: Larrea & Ramos (2022)</p>

The case study examples above relating to this dimension of ESG show that obtaining the social licence to operate is heavily tied up with finding an appropriate way to conduct community engagement. Chinese firms in the extractive industries have had little experience of this and appear to have floundered at times. Box 4 details the process of how a Chinese mining firm in Myanmar struggled through this process and provides new insights into a potential role for external professional service providers and NGOs.

Box 4: A Chinese mining company and new forms of social engagement in Myanmar

Myanmar has been a popular destination for Chinese companies to invest in mining, hydropower, oil, and natural gas. The Letpadaung copper mine was a joint venture in 2010 between the Union of Myanmar Economic Holdings Limited and a Chinese company called Myanmar Wanbao Mining Copper Limited, a subsidiary of China North Industries Corporation, a well-connected, military-linked Chinese SOE. The focus in this case study is on the interactive dynamics between Wanbao and local societal actors – civic actors, NGOs, faith based organisations, community groups, local farmers – in Myanmar, and how the mining company was forced to adopt a local community based approach, seeking to win community support, and adapt to the power of these local societal actors. After Myanmar achieved democratic rule in 2011, Wanbao (in line with other Chinese businesses) was forced by both local institutions and local societal demands to retool their investment projects and engage with the community.

After the establishment of the joint venture, construction and land acquisition for the mining project began in 2011. The project involved land expropriation of around 6,867 acres, and affected 30 villages. No new environmental and social impact assessments were made, and culturally significant religious sites were disrupted. This resulted in allegations of forced land confiscation. Moreover, the lack of resettlement transparency led to protests and demands for more compensation. The first large scale protests, led by monks, farmers, and environmental activists ran until mid-2012 and resulted in the project being suspended. A government delegation led by Aung San Suu Kyi met with Wanbao to work out a solution. The Letpadaung Investigation Commission was established in December 2012. It concluded with approving the resumption of the project in March 2013 but with changed contractual terms – increased compensation for displaced locals; 2 per cent of profits invested in corporate social responsibility initiatives; and local community development; at the same time, Myanmar government ownership increased from 4 to 51 per cent. Construction resumed in October 2013 but with a major shift in the manner in which Wanbao viewed the local community issues, now incorporating ESG issues into its economic operational responsibilities.

Wanbao engaged the risk advisory consultancy firm, China-i, to help it achieve its “social licence” from the local community. It reformed its social and environmental strategies, formalised local community engagement, expanded its public relations team into a community social development team, and created an inclusive internal committee including employees, and stakeholder groups (local government, villagers, and NGOs). Wanbao also sent Chinese representatives to local villages to collect grievances and feedback. In 2014, Wanbao increased local compensation to 20 times higher than the Myanmar government standard, pumped USD 1 million into the community social development fund, and committed the 2 per cent profit share to support various local community needs – training, education, healthcare, construction, electricity, water, irrigation, and religious donations. Wanbao and China-i organised community consultation meetings, sending department heads with the consultation teams into the villages to ensure that local management fully understood community needs, also thereby building the confidence of the local community in Wanbao’s seriousness. The result was Wanbao launching a contribution plan to support affected villagers. Mine labour was recruited locally (90 per cent) and those who chose not to be recruited were eligible for a self-employment subsidy scheme. Wanbao also created localised supply chains to encourage linkages with SME suppliers – for instance, by providing construction materials, chicken farms and a fertilizer project. Thereafter mining continued, albeit with sporadic and declining protests recurring. In January 2021, Wanbao and villagers from Se Te completed negotiations on terms for resettlement and land acquisition (though some villagers still refused to move).

The lessons that emerged from this process were that local engagement and outreach was critical. Inter-governmental (China/Myanmar) dialogue and agreement was important and created a foundational framework. Civil society involvement sharpened focus and resulted in the adaptation of strategies to local expectations. This influenced other Chinese firms to change their strategies to local social engagement. The China International Trust Investment Corporation in the Kyaukpyu deep-sea port and SEZs reached out to local NGOs. The China National Petroleum Corporation has spent USD 27 million on CSR and engaged its Chinese staff in cultural awareness training.

Chinese firms have been forced to reconsider their approach and have adapted to Myanmar's more stringent regulatory environment. Moreover, they have opened up to increased local shareholding and decision-making. Chinese firms have become more sensitive to the importance of local religious and cultural tradition, and the need to engage with religious and community leaders. Finally, Chinese firms have begun to consider the importance of using specialised Chinese NGOs and firms to communicate and extend outreach programs to local communities.

Many Chinese have also stopped relying on Myanmar's military entities, and diversified partnerships with local actors – National League for Democracy (NLD) leaders, the Myanmar ethnic Chinese business community, civil society groups, and local community actors. They have improved their business practices to encompass socio-cultural differences and taboos, observing local norms and practices, respecting religious traditions, and making contributions to communities affected by projects. Finally, they have increased investments in corporate social responsibility to try to meet local demands.

Sources: Gong, 2022; Samah el-Shahat of China-i (interview, 15 December 2022); see also <https://www.youtube.com/watch?v=BZJP7YlaZ4E>)

These case studies reveal some critical issues in regard to the ESG dimension of achieving the social licence to operate and community engagement. Host country national legislative frameworks to require compliance and provide guidelines are important to assist Chinese firms in dealing with issues that are external to their company operations – social, environmental, indigenous rights, and so on. When these are in place, Chinese firms have tended to fall into line. In a similar vein, the gradual adoption of international social and environmental standards by the Chinese government also plays an important role. Voluntary international institutions and associations (such as EITI) also have an important role to play in helping Chinese firms learn how to adapt to local conditions. The studies in this project underscore the importance, and the promise, of collaboration between governments, Chinese investors, and civil society. It is clear that one cannot adopt a purely top-down purely regulatory approach. Building strong civil society organisations, and working with them on partnerships, is crucial to ensuring that Chinese firms are steered long term towards positive social outcomes.

The case studies also demonstrate that Chinese firms operating in developing countries lack deep experience with how to deal with communities. They enter them with their own set of inherited cultural habits and methodologies that they try to simply adopt and map onto this new social environment. As a result, many of them have initially pursued strategies that yielded very considerable community resistance and pushback. Consequently, they have been forced to adapt to the local contexts, legal and regulatory requirements, technical standards, and community norms in the places where they operate. However, there are other examples that demonstrate a flexibility and willingness to change tack and incorporate new strategies that can bring new social and economic dividends with the creation of appropriate institutional structures that create new partnerships.

The general lesson from the case studies is that Chinese and national governments need to improve governance; establish dialogue channels to enhance community participation, and more robust forms of consultation; gain the support of local actors by protecting their rights rather than suppressing them; and consider redistributing a share of mining revenues to foster long term peace and prosperity among local communities. They need to be encouraged to implement more robust monitoring frameworks and to enact a policy involving joint responsibility – shared between the companies, the government officials, and the communities involved – as well as making negotiating processes with foreign investors more transparent. They should guarantee compliance with their legal and regulatory responsibilities, especially in relation to projects' socio-environmental effects.

6 Conclusions

Chinese firms in developing countries are fairly flexible and more willing to adapt to ESG standards than conventionally assumed. As Brautigam summarised it: “With Chinese firms, water takes the shape of the bottle it is in. In more advanced countries, with more advanced regulations and enforcement, Chinese firms will reflect these requirements” (personal communication, 5 February 2023).

Chinese firms do not relate to ESG in the same manner as firms in the industrialised, high income countries (such as the United States, the European Union, the United Kingdom, and Japan). A major driver of ESG standards in the industrialised, high income countries stems from consumer demand and social pressure from civil society. This translates into a complex array of social and political pressures on lead firms within GVCs to demand ESG compliance from suppliers across the globe. That pressure also translates into governments having to abide by international ESG standards, not only in the industrialised world but also encompassing developing countries.

China’s relationship to ESG issues, on the other hand, is different and more complicated. Historically there has been little socio-political pressure emanating from civil society and consumers within China, although pollution issues have increasingly come to the fore across China leading to a greater societal consciousness around environmental aspects of ESG. As Sun (2022) has shown, the rise of eco-certification in China has been mainly driven by state actors, including government sponsored business associations, pursuing their own political, economic and development goals. China’s relationship to ESG has been driven by a) the Chinese government focusing on geo-political considerations; and b) primarily economic risk considerations of Chinese lead firms operating internationally – risks relating to raising finance and ensuring that business operations can take place without major disruption.

The Chinese government first and foremost considers the geo-political implications of not adopting ESG standards within its own regulatory frameworks. Since the adoption of the 13th Social and Economic Plan (2016-2020) ESG issues have become much more prominent in its regulatory framework. Once this is done, it then considers the implications of ensuring suitable engagement with national governments where its lead firms are operating to ensure some common agreement regarding ESG standards. Lead Chinese firms operating in the developing world have responded to such geo-political pressures in the Chinese regulatory frameworks as well as national legislative requirements in any specific developing country where they are located.

An important conclusion from the above discussion is that economic considerations (especially financial risk) are also increasingly crucial to Chinese firm decision making in developing countries. Chinese lead firms are less concerned with the ethical issues driving ESG – since these are not currently deeply grounded in the socio-political culture of Chinese domestic consumer demand or civil society operations. For these firms, the fundamental issue has been: What are the economic and profit implications of their bottom line if they ignore ESG in a country they are operating in? If there are no economic implications, then the consequent pressure to take account of local, provincial or national community pressures in the sphere of operation in that country is significantly decreased. Their major interest in that case has been making sure they do not run afoul of the legislative requirements in that particular country. If they encounter, or perceive that they will encounter, major socio-political resistance to their operations, then not responding to ESG issues opens up significant risk to the success of their economic bottom line.

Outward bound, Chinese lead firms are also increasingly subject to the risk of financial lending. Local Chinese banks have become more sensitive to the Chinese government responding to the geo-politics around ESG issues and, in turn, are becoming much more demanding of Chinese SOEs demonstrating ESG compliance (Bloomberg News, 2022). This, and other

pressures, are driving Chinese lead firms seeking funding on international financial markets, which themselves require greater attention to be paid to ESG issues. As ESG permeates through government thinking, so too are large Chinese firms (SOEs and private companies) that are listed on various stock exchanges subject to being rated against compliance auditing. Thus, Chinese lead firms are having to use ESG compliance as a shield to defend themselves against financial risk. For large Chinese firms to operate globally, they are increasingly required to speak the language of sustainability.

For many Chinese firms, ESG is therefore tied up with risk management. In a recent survey of 300 Chinese firms operating across the Belt and Road Initiative undertaken by China-i this relationship between ESG and risk management emerges very clearly.⁸ These firms were asked how many international projects failed to achieve all their projected desired outcomes due to the ESG risk. They reported that, due to a lack of systematic inclusion of ESG in risk management systems, 42 per cent of projects under USD 1 billion and 65 per cent of projects over USD 1 billion failed to achieve all their projected desired outcomes. Amongst mining companies surveyed, the risk figures cited were 63 per cent and 82 per cent respectively. When these firms were asked about the causes of risk in respect to their operations, the survey identified 260 instances of social conflicts in their investment processes. The most prevalent social triggers identified related to socio-economic subsistence issues: lack of community benefits (33 per cent); reduced access to livelihood resources (28 per cent); land (22 per cent); and labour (17 per cent) ranked very high. Other community issues raised were: impacts on local values (24 per cent); security and violence (22 per cent); and, indigenous peoples rights (18 per cent). Environmental risk triggers overwhelmingly revolved around the environmental consequences of projects: access to water (27 per cent); degradation of ecosystems (25 per cent); sound pollution (23 per cent); and general pollution (22 per cent). Governance triggers in terms of risk management were also important and the most significant revolved around process relationships with local communities. The key ones here were a lack of adequate consultation with communities (38 per cent); which was tied up with unrealistic expectations of benefits on the part of local communities (35 per cent); governments not doing the required works (26 per cent); and deficient planning (25 per cent), as well as a lack of transparency especially around EIA disclosure.

Therefore, a critical conclusion that needs to be drawn from the above is that for many Chinese lead firms operating in the developing world, ESG is increasingly being perceived as a fundamental **risk mitigation tool** assisting them to ensure that the firms are able to maintain continuous, consistent, and predictable economic operations. In other words, Chinese firms use ESG as a risk management instrument, “a defence mechanism against changing political landscapes within the countries where they are operating. In these situations Chinese lead firms are beginning to realise that only their local community can act as a protective shield for their investment”.⁹

The combination of these geo-political and economic pressures plays out differently for the different forms of Chinese outward investment discussed earlier. In the case of Chinese SOEs, the regulatory pressure from incorporating ESG standards into guidelines and legal requirements by Chinese government frameworks is a critical driver. This has escalated over the past couple of years with the adoption of a variety of ESG standards and their incorporation into the Chinese state’s regulatory framework. The agreements reached between the Chinese government and particular developing country governments is also an important driver of ESG compliance in that country. The specific economic risk considerations affecting a Chinese lead

8 The risk data cited here was provided by Samah el-Shahat at China-i Risk Data Centre.

9 Samah el-Shahat interview (15 December 2022).

firm's business operations are also a significant driver. These all work out in different ways for the various forms of Chinese investment in the developing world that was identified earlier.

Although Chinese SOEs are commercially driven, they have also been driven by Chinese geo-political considerations. They have hence responded to Chinese government regulatory requirements and pressures in their operations in the developing world. As these ESG requirements have increasingly been incorporated into official Chinese government regulatory frameworks, SOEs operating in developing countries have increasingly been pushed into being more ESG conscious and compliant. The fact that these ESG requirements and guidelines have only recently been adopted by the Chinese government means that their explicit manifestation in ESG activity, compliance, and responsiveness of SOEs operating elsewhere is still at an early stage. Given that Chinese SOEs are expected to adhere to Chinese government regulations, one can expect that ESG issues will figure more prominently in Chinese SOE activity over the next few years. There is now a regulatory system in place that can be used to improve ESG performance and compliance. This of course all depends on the level of monitoring and enforcement exercised by the Chinese regulatory authorities and whether ESG compliance is able to compete with other priorities that the upper echelons of SOE management face. However, unlike in previous decades where Chinese SOEs and mining companies tended to look to inter-governmental political solutions to solve ESG issues (for instance, the mining example in Zambia cited above), it is likely that SOEs will lead by example in the coming decade.

National/provincial government regulatory requirements in developing countries, and the possibility of building alliances with political elites in a specific country, have been an important second order consideration driving Chinese firms. The political fluctuations of developing country contexts and depending solely on the political regime in power at any point in time has proven to be an unreliable foundation. Some Chinese lead firms which depended primarily on such alliances with local political elites have been burnt when a change of government in a country they are operating in has occurred. Operating purely on the basis of political alliances, largesse, and favours with top government officials in developing countries has not always protected them from social conflicts, community resistance, and consequent disruption of their economic activities. Mindful of the economic risk to their operations in developing countries, SOEs are shifting from a sole reliance on such geo-political dependency. After all they are also driven by the need to maintain their companies' economic bottom line, and management will not be promoted if their companies are consistently losing money. This brings into play a different approach to social and political pressure on a local level from community activists in developing countries where they are operating. Hence it starts to highlight the importance for these firms of using ESG as an economic risk management instrument in order to respond to local community demands.

Private sector Chinese firms in developing countries are driven by a somewhat different approach to the complex relationship between geo-political and economic considerations when viewing ESG issues. A number of Chinese private sector firms in developing world are also located more in high-tech service sectors (such as telecoms) rather than mining, construction and infrastructure activities. ESG compliance in these countries for these high-tech service firms is therefore less of an issue given the nature of their sectoral involvement. However, for those Chinese lead firms involved in manufacturing and mining activities in developing countries, their first order priority hinges on ensuring the profitability and stability of their economic operations. They are vulnerable to local community and political pressures in the developing countries where they are operating. ESG as a risk management instrument to counter local community activity is therefore driven up their operational agenda. This is not to say that the geo-political pressures are not important. Adhering to national legislative regulatory frameworks in the country of their operations is part and parcel of such a risk management instrument, and such private sector lead firms are hence also responsive in this domain. Having ESG adopted within Chinese guidelines and inter-country national government agreements also helps.

The myriad of independent medium and small firms in developing countries relate to ESG issues in a completely different manner. The Chinese government has little influence on their decision making and operational activities in these developing countries. They are on their own and these Chinese SMEs are solely driven by a desire to avoid being noticed by the political powers in any developing country. They either stay on the right side of the law and ensure that they are compliant with any local legislation; depend on side payments to officials tasked with enforcing local laws; or try to operate under the radar of the (national, provincial or municipal) government's purview.¹⁰

Lastly, there are Chinese privately owned firms that are suppliers in global or regional value chains, either from within China or in developing countries. These are driven by the public/private sector standards prevailing in such value chains for, if they are unable to meet the required standards (with or without some lead firm supply chain development assistance), they are excluded from the value chain. Hence their level of ESG sensitivity is entirely dependent on value chain dynamics and very different from Chinese lead firms operating outside of China.

Given that the Chinese ESG landscape is changing dramatically, how does this impact development cooperation initiatives between Western governments, developing country governments, and local communities, and the Chinese government and Chinese firms operating in host countries? Although ESG drivers in China are substantially different from those in the industrialised, high income countries, sustainability issues (initially driven by pollution concerns) are starting to be fore fronted by the Chinese government through a raft of guidelines, regulations, and legal frameworks. These influence the operations of Chinese lead firms (both public and private) in developing countries. Chinese firms are pushed by stock exchange governance regulations, as well as financial requirements governing loans, into being more ESG compliant. Also bearing in mind that Chinese lead firms operating in developing countries are in the main less driven by "ethical" considerations underlying ESG and more by managing economic risks to ensure that their bottom line remains healthy, this dimension also opens up the door for cooperation on the part of lead Chinese firms. Such firms are hence much more open to the social and governance aspects of ESG if only as a defence to their economic wellbeing. All of this creates a foundation for potential development cooperation alignment with the Chinese government and Chinese lead firms operating in the developing world.

Such alignment can be distilled into the following **recommendations**:

- Assist host country governments to enact environmental and social legislation; strengthen the capacity of their ministries to understand, enforce and upgrade ESG regulatory frameworks; and develop incentives which makes it easier to draw Chinese firms into agreed compliance.
- Create opportunities in host countries for Chinese investors to learn about local regulations and customs from governments, civil society, and especially firms that have been present in those societies and struggled with similar problems.
- Invest in capacity building of local community groupings, civil society organisations, and NGOs to enable them to engage meaningfully with Chinese firms over ESG issues and create their own monitoring and evaluation mechanisms.¹¹
- Assist in the upgrading of current national ESG guidelines in developing countries with independent monitoring, a formal grievance process, enforcement mechanisms, and other safeguards that have become globally commonplace among other major foreign investors.

10 Park and Chen (2009) discuss Chinese small enterprises in South African small towns living in isolation and trying to remain unnoticed. See also Weng et al. (2018) on how small scale producers relate to local government officials.

11 Lessons from the current practice of EITI may be useful, see also <https://eiti.org/our-mission>.

- Assist host country governments and NGOs to establish protocols around the three dimensions of ESG discussed above,¹² and engage Chinese lead firms in the process.
- Set up joint learning programmes between Chinese firms and other foreign investors.
- Develop joint mechanisms and guidelines with the Chinese government to hold Chinese firms to the ESG standards, using existing Chinese government advisories as alignment points.¹³

In conclusion, the various case studies cited in this report show that there are some examples of Chinese firms behaving according to the negative type casting that has dominated much of the literature about Chinese firms in developing countries. However, the evidence is much more varied and mixed than conventional wisdom would have it. There are also numerous examples in the above case studies showing counter tendencies to this narrative: There are sufficient instances of Chinese firms in host developing countries showing significant movement to alignment on ESG dimensions. These tendencies can only be expected to grow much stronger in the coming years as the Chinese government seeks to adopt more ESG standards within guidelines and regulatory frameworks and enforce compliance on Chinese firms operating abroad. A changing regulatory ESG framework in China, albeit on its own terms and driven by different forces than those operating in the industrialised world, creates opportunities for alignment and convergence in development cooperation initiatives around sustainability if common ground can be found around the proposed recommendations cited in this report. This is especially the case with proper incentives from host country governments and when pressure from civil society organisations in developing countries is in place. Hopefully, the examples, case studies, discussion, and analysis show the importance of cooperation between national governments, investors, local communities, and Chinese regulators in creating new incentives and pathways.

12 There are examples of such institutional collaboration which can be investigated and replicated. For example, collaboration between Chinese oil companies, the Gabonese Environmental Ministry and US-based NGOs.

13 There already exist such ongoing initiatives – for example led by UNDP, the United Nations Development Programme. Other initiatives are focused on international NGOs – for example, the WWF (World Wildlife Fund) working on environmental compliance.

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