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Urban informality and building a more inclusive, resilient and green economy

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The green economy and climate resilience agendas are widely promoted as solutions to 21st century challenges facing sustainable development. As the world continues to urbanise, the role of cities in promoting these agendas is increasingly recognised. Yet, the informal economy – which accommodates the majority of non-agricultural employment in low- and middle-income countries – is seldom considered in the transition to a greener, more resilient economy. This paper aims to provoke discussions around two main questions: What is the role of the urban informal economy in this transition? And, how can urban informal enterprises and their workers contribute to achieving economies that are not only greener and more resilient, but also more inclusive?

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Summary

For the most part, this working paper takes it as given that the world's economies need to become more equitable, climate resilient and green. The extent to which economies actually make the needed transition will depend heavily on what happens in cities. The persistent growth of the urban informal economy in many parts of the world raises questions about how this transition can be achieved. A conventional regulatory or investment-led approach, which ignores the informal economy, is unlikely to be sufficient or even appropriate. It is becoming increasingly clear that successful attempts to achieve more climate resilient and green economies will need to be grounded in a sound understanding of the informal economy, especially if such efforts are to be inclusive, and to benefit the economically disadvantaged and insecure.

Much of the early work on informality in the 1970s and 1980s emphasised the importance of taking account of the urban informal economy, but it was still widely assumed that it was a temporary phenomenon characteristic of low-income economies, which would decline with growth and modernisation. Instead it has expanded. This has been in part the result of the uneven pressures put on the economy by globalisation and structural adjustment. These pressures have restricted the growth of the more regulated sectors of the economy, and indirectly favoured the informal economy, though not necessarily those who work within it.

Very different interpretations of the informal economy and its role have emerged. Some extol the virtues of those operating in the informal economy, and argue that their property rights need to be formalised, while the regulatory burdens that push them into informality need to be reduced. Others point to the exploitation of informal workers and the harm resulting from the failure to adhere to acceptable standards. Still others focus on the complex relations between the informal and formal sectors, and point to the tendency for powerful formal enterprises to shift certain components of the supply chain into the informal sector to avoid regulation. At times, partial interpretations of the informal sector are taken to represent the whole. Thus they become reminiscent of the blind men interpreting an elephant through different body parts (tail, tusk, trunk, etc): "Each in his own opinion exceeding stiff and strong, though each was partly in the right and all were in the wrong." As with an elephant, it is important to recognise that the informal economy is made up of very diverse parts, including those that are green (eg waste picking) and those that are environmentally hazardous (eg lead battery reconditioning). Understanding these parts and the ways in which they may link up with the formal sector (eg through outsourcing) has important implications for the transition to a more inclusive, green and resilient economy.

The gender dimensions of the informal economy amplify the importance of well-informed engagements that increase economic inclusion, as well as contributing to green and climate resilience goals. Women are found disproportionately in the informal economy, and especially in domestic employment and those parts of the informal economy located in and around informal settlements. Partly as a result, women are more prevalent in the lower paid segments of the informal economy, and if unpaid care work were included by conventional statistical definitions, there would be an even greater preponderance of women. Organisations like the Self Employed Women's Association (SEWA) of India and the international research and policy network of Women in Informal Employment – Globalizing and Organizing (WIEGO) help to provide a more effective basis for engaging with women in the informal sector and addressing the gender issues that arise.

More generally, even when pursuing green and climate resilience goals, equity can be served through inclusive planning involving direct engagement with organisations of informal sector workers and other organisations or the urban poor. The challenge here is to improve upon local informal economies, but not necessarily to formalise them, or for that matter to protect them from formalisation. This challenge is made more difficult by the enormous variation within the informal economy: some parts more organised, others less; some parts producing public goods, some public bads.

Although there has been considerable research on the informal economy in recent years, the environmental priorities for greening the urban informal economy remain poorly understood, and the best policy levers for addressing these priorities have not been identified. The potential role of informality in contributing to urban climate resilience is also poorly understood. Relations between the informal economy and urban inclusion have been more thoroughly researched, but the knowledge produced has not been taken up in the environmental policy arenas.

Despite the remaining uncertainties, many of which need to be resolved locally, it is possible to identify the broad outlines of an inclusive, green and climate resilient agenda that takes the informal economy seriously:

- The contribution of formal regulations needs to be enhanced, but this means recognising their limitations, and engaging with the informal operators and workers so as to avoid regulations that undermine the livelihoods of those currently reliant on the informal sector.
- More important, it will be critical for local governments and informal producers, workers and their organisations to collaborate actively to coproduce inclusive, climate resilient and green outcomes.
- Segments of the informal sector that already promote inclusion or provide urban resilience and green public benefits need to be encouraged, and those that clearly do not need to be discouraged.
- The contribution of the formal economy to green and climate resilience goals also needs to be pursued, with relations between formal and informal enterprises and workers scrutinised to ensure that both equity and environmental goals are achieved.
- More generally, principles of inclusive urban planning need to be applied to the urban informal economy, and extended to take account of public goods including those related to climate change and the benefits of a greener economy.

1 Introduction

Recent reports by leading international agencies are actively promoting the green economy as society's – and capitalism's – best hope of solving the world's triple crisis (eg OECD 2011; UNEP 2011b; for a useful review see Allen and Clouth 2012). This triple crisis is held to combine: the 2008 financial crisis and its legacy (World Economic Forum 2013); the anticipated crisis of dangerous and irreversible climate change resulting from continued emissions of global greenhouse gases (Rockström *et al.* 2009; World Bank 2012); and the persistent crisis of poverty, which remains endemic despite progress toward attaining the Millennium Development Goals (UN 2013).

The green economy is presented by its advocates as an attractive and realistic policy aspiration because it places a healthier market economy at the centre of the solution, with investment in green technologies providing new opportunities and outlets for capital (Brand 2012). While much of the early attention in discussions on the green economy focused on investment and the formal economy, a growing number of critics have begun to question why the informal economy has largely been ignored (Benson *et al.* 2014a; Benson *et al.* 2014b; Chambwera 2012; Dawa and Kinganjui 2012). After all, the informal economy accommodates up to three quarters of non-agricultural employment in low- and middle-income countries (ILO 2013b). In particular, Benson *et al.* (2014a) argue that this omission reflects an assumption that green growth stimulated by green investment in the formal economy will lift people out of poverty and absorb and formalise informal economies, and that this assumption ignores how and why poor people are excluded from formal economic activity in the first place. Benson *et al.* urge governments and international agencies to engage much more critically with these questions so as to ensure that green growth benefits the poorest and most vulnerable informal workers, producers and traders.

1.1 The urban green economy

International agencies are also increasingly recognising the role that cities can play in the transition to the green economy based on their ability, through agglomeration economies,[1] to innovate, create employment, generate wealth, enhance quality of life and accommodate population growth within smaller ecological footprints than other settlement patterns (eg Grobbelaar 2012; Hammer *et al.* 2011; UNEP 2011a). But like the other green economy reports, those on cities tend to emphasise their dynamic ability to create new green employment opportunities without paying sufficient attention to the barriers that prevent or discourage informal firms and their workers from entering the formal economy, or from accessing basic urban services.

The social and environmental challenges associated with the transition to a green economy are further complicated by that fact that the urban centres of Africa and Asia are expected to accommodate the vast majority of the world's future population growth (McGranahan and Satterthwaite 2014; UNDESA 2014). Furthermore, the urbanisation of global poverty (see

[1] 'Agglomeration economies' refers to the economic advantages that come with the spatial concentration of economic activities, often associated with urbanisation and urban growth (Strange 2008; Turok and McGranahan 2013).

Tacoli *et al.* 2008) combined with the informalisation of the global labour force (see Chen 2008) mean that urban informal employment is critical to the future of a large and growing share of the world's low-income population. As these trends play out in cities, it will become increasingly important to engage not only with the urban green agenda, but also with the urban brown agenda, which encompasses many of the environmental issues – such as poor sanitation and indoor air pollution – that tend to be particularly burdensome in low-income areas (McGranahan *et al.* 2001).

1.2 Urban climate change resilience

To address the climate challenge, it is no longer sufficient to reduce the emissions of carbon and other greenhouse gases. As highlighted by the Fourth (2007) and even more in the Fifth (2014) Assessment Reports of the Intergovernmental Panel on Climate Change (IPCC), it will also be necessary to manage the risks that climate change will pose. Whereas many aspects of climate change mitigation (reducing the atmospheric concentration of greenhouse gases) will be supported by the 'greening' of economies, climate change adaptation will require a set of distinct activities to reduce losses from future shocks and stresses. 'Climate resilience' is a concept that has been increasingly used to describe this process (Bené *et al.* 2014; Dodman *et al.* 2009). More recently, policy interventions, for example by Rwanda and Ethiopia, have begun to link resilience explicitly with environmental goals connected to the green economy. In effect, a climate resilient green economy combines a number of the leading goals being promoted as desirable for cities and countries in the global South.

Although the meaning of climate resilience is evolving and widely debated, the IPCC Fifth Assessment defines resilience as:

"The ability of a social, ecological, or socio-ecological system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its essential basic structures and functions, its capacity for self-organization, and the capacity to adapt to stress and change." (Agard and Schipper 2014)

A definition more explicitly focused on cities states:

"City resilience describes the capacity of cities to function, so that the people living and working in cities – particularly the poor and vulnerable – survive and thrive no matter what stresses or shocks they encounter." (Arup 2014)

However, despite a growing focus on the poorest and most vulnerable urban residents, to date there has been little significant engagement by the urban climate resilience community with issues of informality. This omission is particularly problematic in low- and middle-income countries, where the most climate vulnerable towns and cities are concentrated (Revi *et al.* 2014) and where the majority of the urban poor rely on informal income generating activities. Such activities tend to be insecure, unreliable and highly vulnerable to shocks and stresses (both climate- and non-climate-related) (Mitlin and Satterthwaite 2013; Sanderson 2000). Moreover, despite the increasing attention that urban climate resilience is receiving among urban authorities, donors and researchers, the potential role of the informal economy in achieving urban resilience remains unclear. There is also a distinct danger that strategies promoted in the name of resilience will ignore the informal economy, and hence the obstacles and opportunities it presents.

1.3 Outline of the paper

From the above, it is clear that the urban informal economy deserves much more attention in both the green economy and resilience debates. Accordingly, this review paper seeks to build on Benson *et al.* (2014a) by developing a better understanding of the urban informal economy and its key features as a basis for identifying the means of supporting the positive contributions that informal enterprises and their workers can make in achieving greener, more climate resilient and more inclusive economies. To do so, this paper addresses five main questions:

- What is the informal economy and how have its scale and significance been changing?
- What are the key features of the informal economy in urban areas, and why do they matter?
- How have different definitions and understandings of the informal economy affected urban policies and practices?
- What are the governance approaches applied to the urban informal economy, and how do they relate to urban inclusion, climate resilience and environmental burdens?

- What are the implications for achieving economies that are greener, more climate resilient and more inclusive?

These questions are addressed in four sections. Section two identifies and profiles the major growth trends in the informal economy, with an emphasis on the non-agricultural informal economy, and outlines the major schools of thought that have emerged to explain it. Section three identifies and examines the key features of the urban informal economy. Section four outlines some of the governance perspectives on the urban informal economy that have emerged to address the needs and priorities of the poorest and most vulnerable workers in urban areas. Section five concludes by examining how the informal economy can contribute to achieving greener and more climate resilient urban economies, while also taking account of the need for more inclusive policy and regulatory frameworks and governance arrangements.

The central sections of this working paper are based on a review of the literature on the informal economy. However, an attempt has been made in every section to draw out some of the environmental implications relevant to the transition to a greener and more climate resilient economy, whether or not the existing literature has explored this systematically.

2

Trends in the informal economy

The informal 'sector' was initially assumed to be a marginal and transitory phenomenon that would inevitably be absorbed by the modernising urban industrial sector (Moser 1978; Portes and Sassen-Koob 1987). More than 40 years after it was 'discovered' by Hart (1973) in a study of Accra, Ghana, however, the informal sector has grown and expanded rapidly, and is now where the majority of the world's population produces and trades (ILO 2013b). Following a brief review of definitions, this section identifies and profiles the major growth trends in the informal economy.

In the decades immediately after the term was coined, the urban informal sector was subject to relentless interpretation and debate (eg Bromley 1978; Moser 1978; Peattie 1987; Rakowski 1994). Early critiques questioned the utility of the informal sector as "an exceedingly fuzzy concept" (Peattie 1989, p. 851) that resulted in "complete confusion" (Moser 1978, p. 1051) over its meaning and usefulness. For the most part, however, major definitional debates have subsided, and some claim they were resolved more than two decades ago (Meagher 2013).

It is now widely accepted that the informal economy involves income generating activities that fall outside the purview of state regulation. The International Labour Organization (ILO), the international agency that focuses most on the informal economy and its statistics in particular, describes it as referring to "… all economic activities by workers and economic units that are – in law or in practice – not covered or insufficiently covered by formal arrangements" (ILO 2002a, p. 5), while restricting these economic activities to income generating activities involving the sale of legal goods and services (ILO 2013a, p. 12). These sorts of definitions allow statistics on the informal economy to be calculated, but gloss over some remaining ambiguities regarding the informal economy and how it is best conceptualised.

By limiting the informal economy to **income generating** activities, the informal and unpaid household care economy is excluded. From the ILO's perspective this may not be a problem. However, particularly from a gender perspective there may be good reasons to recognise the household care economy as part of a value producing informal economy, even when it does not generate income through the market (indeed, the public sector does not generate its income through the sale of goods and services, but is nonetheless considered to be part of the economy). From the perspective of achieving a more inclusive, green and climate resilient economy, it could also be misleading to exclude from the informal economy those informal activities that are intentionally contributing to local resilience, environmental improvement and inclusion, but are not generating income through the market.

By limiting the informal economy to the production and distribution of **legal** goods and services, the criminal economy is excluded. It is indeed important not to confuse the informal economy with what is normally labelled the criminal economy in that the term 'informality' is intentionally ambiguous about whether the law is being evaded or simply not applied, and it was never intended to imply that the goods and services

produced were of questionable legality. On the other hand, it is important to recognise that those operating in the informal economy often face legal issues, and are sometimes treated as criminals, whether or not they actually are. Alternatively, when people operating in the informal economy are criminalised, by changes in the law for example, it would be misleading to treat them as having ceased to operate in the informal economy. Moreover, the lack of any clear boundary between the informal and the illegal economy can serve to hide seriously illegal activities or to persecute innocent informal activities.

Statistical definitions of the informal economy now also make a distinction between the informal sector (which includes informal enterprises and their workers) and informal employment (which also includes workers employed informally by formal enterprises), with all informal workers considered to be part of the informal economy (Box 1) (Chen 2012). To a first approximation, informal enterprises can be taken to be those that are not registered or do not conform to formal regulations, and informal employees can be taken as those who work for informal enterprises or work for formal enterprises without legal recognition and protection. Identifying and understanding the informal economy is complicated, however, by the fact that there tends to be a wide range of overlapping and unevenly applied formal arrangements and regulations. There are different degrees of informality, different explanations for that informality, and no straightforward means of assessing what the consequences of formalisation or further informalisation would be, or indeed the form they would take.

Formal definitions, which are heavily influenced by the International Labour Organization, tend to ignore the politics and regulation of place, which as described in later sections are particularly critical to informality in urban settlements. Thus, three legal aspects commonly invoked to demarcate formal and informal activities are:

"1. Legal recognition as a business activity (which involves registration, and possible subjection to health and security inspections);

2. Legality concerning payment of taxes;

3. Legality vis-à-vis labour matters such as compliance with official guidelines on working hours, social security contributions and fringe benefits."

(Chant 2014, p. 299, citing Tokman 1991)

However, the regulations that many small urban enterprises fall foul of are those related to the areas where the enterprises operate (eg in a residentially zoned area, in a public space where such enterprises are not meant to operate, or in an informal settlement), the buildings they operate in (eg buildings not meeting construction standards or not meeting standards specific to their sort of enterprise), or the way they use their space (eg with multiple enterprises occupying a site where only one is allowed). Such regulatory issues may relate to being unregistered, not paying taxes or not complying with labour laws, but it can be very misleading to assume that urban informality can be reduced to a question of registration, taxation and labour

BOX 1: FORMAL DEFINITIONS OF THE INFORMAL ECONOMY

While it is generally accepted that the informal economy involves activities that fall outside the purview of state regulation, this definition has gone through a number of subsequent revisions to reflect the heterogeneity of the informal economy and its linkages with the formal economy (Chen 2007, 2012; ILO 2002b). According to Meagher (2013), these revisions have not deviated significantly from the original definition, but have contributed to its conceptual clarity and to more focused measurement and data collection methods (see also ILO nd).

The revision most applauded in the literature (Chen 2007, 2012; Meagher 2013) is contained within the 2002 amendment to the definition by the ILO (2002a), which expands the original definition of the informal sector to cover not just income earning activities operating outside of legally regulated enterprises and employment relations, but also unregistered and unprotected labour in formal enterprises. This amendment attempts to include all employment segments and labour market linkages, with a particular focus on the employment arrangements of the working poor. It defines economic informality around three core concepts:

- **The informal sector**, which refers to production and employment in unregistered enterprises
- **Informal employment**, which focuses on employment outside of the labour protection regulations of a given society, whether informal or informal enterprises, and
- **The informal economy**, which covers all enterprises, workers, and activities that operate outside the legal regulatory framework of society, and the output that they generate.

relations. As should become increasingly apparent in later sections, the roots and dynamics of the urban informal economy are typically far more complicated than this.

More generally, even if there is more agreement on the definition of informality and how to measure the size of the informal economy, there are still divergent views on why informality is so pervasive and what should be done about it, if anything. Defining or describing informality as involving no or insufficient coverage by formal arrangements might seem to suggest that formalisation is inherently desirable. But informality may arise because the prevailing formal arrangements and regulations that are being applied are poorly designed or discriminate against certain segments of society. Simply enforcing such arrangements and regulations more vigorously may drive the informal economy underground, or may reduce the informal economy in ways harmful to those (previously and perhaps still) dependent upon it. It may make it more difficult to green the informal economy, or to improve conditions for informal workers. In other conditions, or with better regulations, formalisation may be the best means of both protecting the environment and benefiting disadvantaged workers.

2.1 Growth and the informal economy

According to Chen (2007), the re-converging interest in the informal economy stems from two main recognitions. Firstly, despite predictions of its eventual contraction, the scale of the informal economy is vast, and is continuing to grow, including in unexpected places; and secondly, despite ongoing debates about its key features, informal enterprises and jobs have become increasingly identified as key pathways to economic growth and poverty reduction (see also Rakowski 1994; Tokman 1989). Both of these recognitions have encouraged greater conceptual clarity and more focused policy debates (discussed in later sections). The literature reviewed for this working paper indicates that the informal economy is not only growing, but also: characterised increasingly by precarious forms of employment; with certain segments dominated by women and other vulnerable groups; and as a whole concentrating increasingly in urban areas, particularly where countries are experiencing rapid urban population growth.

The informal economy is now a significant and permanent phenomenon that is growing in most parts of the world in response to the ongoing global economic crises. While statistics on the size of the informal economy can vary depending on the type of definition used, available data show a general trend toward the informalisation of the economy, particularly in developing regions (Mitlin and Satterthwaite 2013, p. 160). Moreover, we are seeing a pervasive increase in precarious forms of informal employment, which has worsened as a result of the global financial crises (ILO 2013a). As indicated in Table 1, informal employment is particularly prevalent in low- and middle-income countries, where it accounts for half to three quarters of all non-agricultural employment (see also Chen 2010).

In terms of national income, estimates by the World Bank (Schneider *et al.* 2010) for 162 low-, middle- and high-income countries between 1997 and 2009 show that the average share of the informal economy in gross domestic product (GDP) was 38.4 per cent in sub-Saharan Africa, 36.5 per cent in Central Asia and Europe, and 13.5 per cent in high-income countries. Generally, the higher the country's GDP, the lower the percentage of informal employment within the total non-agricultural employment, with some exceptions (Mitlin and Satterthwaite 2013).

Table 1: Percentage of nations' non-agricultural employment that is informal employment (data from 46 low- and middle-income countries)

PERCENTAGE	COUNTRIES
>70	Bolivia, Honduras, India, Madagascar, Mali, Peru, Zambia
50–70	Argentina, Colombia, Ecuador, Egypt, El Salvador, Liberia, Mexico, Nicaragua, Sri Lanka, Timor Leste, Uganda, Vietnam, West Bank and Gaza, Zimbabwe
30–50	Brazil, Costa Rica, Dominican Republic, Lesotho, Namibia, Panama, South Africa, Thailand, Turkey, Uruguay, Venezuela
<30	Armenia, Azerbaijan, Macedonia, Moldova, Serbia, Slovakia

Source: Data from ILO (2011), presented in Mitlin and Satterthwaite (2013, p. 161)

The informalisation of labour markets is linked to the feminisation of the labour force (in terms of the rising engagement of women in paid work). Women have long predominated in informal domestic work and various other forms of unpaid work, some of which generates incomes for men or male-headed households. Recent estimates summarised in Table 2 indicate that women generally constitute less than half of non-agricultural employment in both the formal and informal economies, but their shares in the informal economy are higher than in the formal economy in Latin America and the Caribbean, sub-Saharan Africa, South Asia and China. Women are particularly heavily concentrated in the informal economy in sub-Saharan Africa (again this is for non-agricultural employment). Women's shares in informal employment, and in employment as a whole, would be much higher if informal domestic and care work in and around their homes were included. On the other hand, as long as such work is not included, the shares are likely to continue to grow as women shift into paid work.

Although more women now participate in paid employment than ever before, they tend to be concentrated in lower-quality, lower-paid, irregular and informal employment (Chant 2013; Chant and Pedwell 2008; Chen 2010; Chen *et al.* 2004; Heintz 2010). Particularly in sub-Saharan Africa, most countries for which data are available show that the percentage of women in informal non-agricultural employment is higher than that of men (Figure 1) (ILO 2013b). The gaps between women and men in the informal economy are attributed to several factors, including women's restricted mobility and use of space, lower levels of skills and work experience, limited access to capital, additional responsibilities involving unpaid domestic and care work, and their often secondary roles in family businesses, which are also often underpaid or unpaid (Chant 2013). These gaps are particularly prevalent in low- and middle-income countries, especially among the urban poor (ibid).

The urban informal economy is growing especially rapidly where formal economic growth has not been commensurate with urban population growth. It is now widely recognised that industrialisation has not created sufficient growth and formal employment opportunities to absorb the significant increase in the urban labour supply arising from urban population growth (due to both migration and natural increase) in low- and middle-income countries (Castells and Portes 1989; Elgin and Ovyat 2013; Meagher 1995; Moser 1978).

Despite the lack of formal employment, many have found a rural-urban move advantageous, and workers have created their own income generating activities in the urban informal economy, where there are few barriers to entry – in terms of, for example, few capital requirements, low levels of technology, simple division of labour, and minimal differentiation in the ownership of

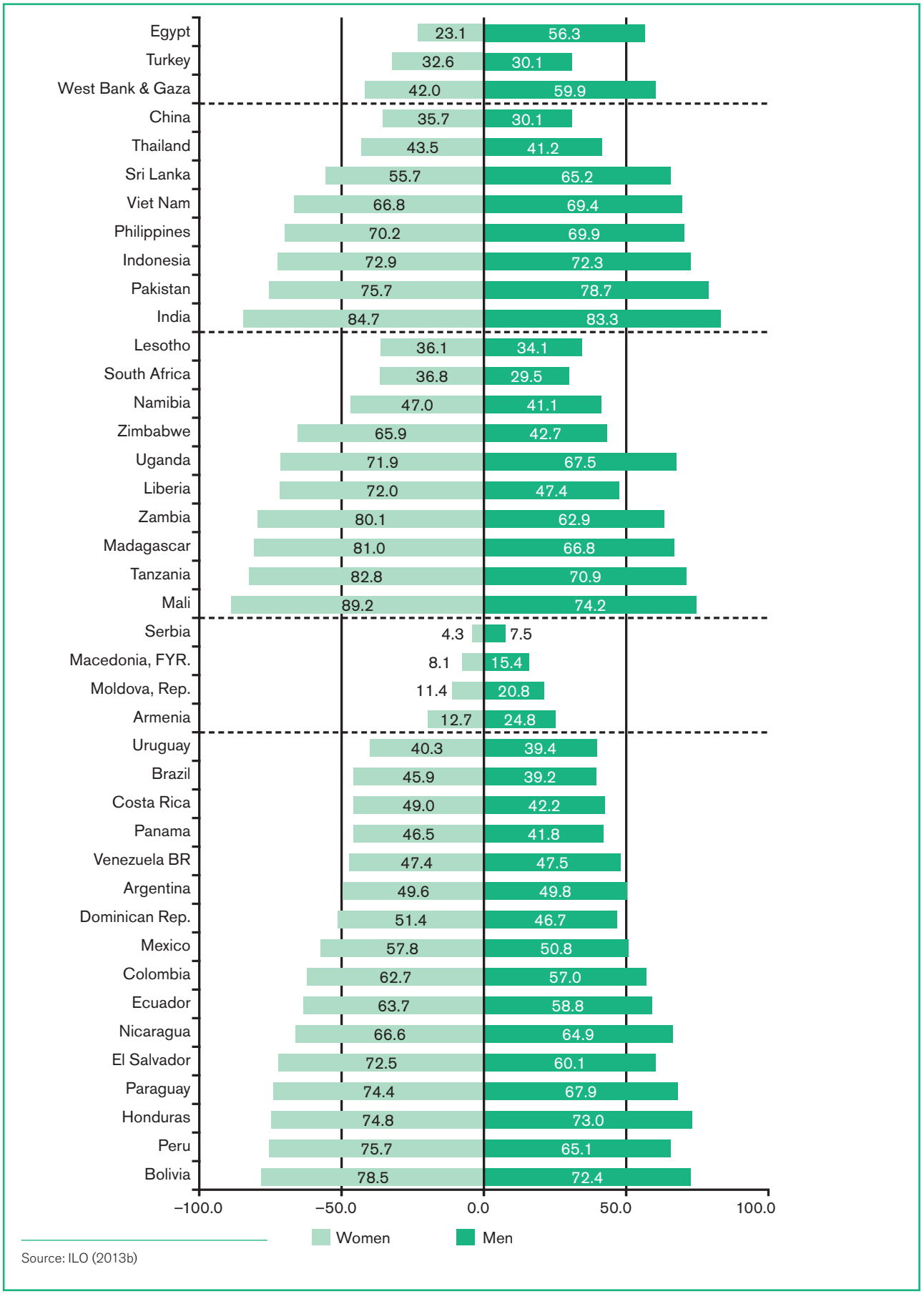
Table 2: Informality and gender in non-agricultural employment by region

	SHARE OF INFORMAL EMPLOYMENT IN NON-AGRICULTURAL EMPLOYMENT			WOMEN'S SHARES IN NON-AGRICULTURAL EMPLOYMENT		
	Women	Men	Total	Formal	Informal	Total
Latin America and the Caribbean	54	48	51	39	45	42
Sub-Saharan Africa	74	61	66	31	45	40
Middle East and North Africa	35	47	45	25	16	21
Eastern Europe and Central Asia	13	10	47	31	45	7
South Asia	83	82	82	18	19	19
East and Southeast Asia (not China)	64	65	65	42	41	41
China	36	30	33	45	52	47

Based on Vanek et al. (2014)

Notes: These are rough estimates based on the best available survey data, and in the case of China only include data on six cities. The share of informal employment in non-agricultural employment is the number of people employed in the informal non-agricultural economy as a percentage of the total non-agricultural employment. The women's shares in non-agricultural employment are the number of women employed as a percentage of the total number of men and women employed, assuming a sex ratio of 1:1 in the working age population.

Figure 1: Informal employment as a percentage of total non-agricultural employment by sex (latest year available)



Source: ILO (2013b)

the means of production (Tokman 1989). Most workers enter the informal economy not because they prefer informality, but because it enables them to survive (ILO 2013a). There is thus considerable, but not full, overlap between working informally and being poor and vulnerable (ibid). On the other hand, workers' survival would be further compromised if their access to urban areas and the urban informal economy were proscribed, and formal opportunities remained limited.

Although entering the informal economy is often more necessity than choice, and it does sometimes serve as a second-best alternative when formal opportunities are absent, this should not be taken to imply that the only connection between the informal and formal economies is that the informal economy is providing subsistence livelihoods for those who cannot get into the formal economy. First, there is too much variability in both economies, and too large a grey area between them, to make such sharp distinctions. More important, there are often close linkages between the informal and formal economies, both forward (with informal enterprises selling to the formal enterprises) and backward (with informal enterprises buying from formal enterprises).

The growth of the informal economy has been strongly influenced by macroeconomic reforms, particularly in low- and middle-income countries. Beyond the statistics, there is growing recognition that the informal economy needs to be analysed in terms of the specific processes that generate and/or maintain it (ILO 2013a). At the macro level, these include informalisation linked to the implementation of structural adjustment programmes (SAPs). In the 1990s the SAPs led to the widespread contraction of the urban formal sector by reducing employment, real incomes and output, as seen widely in sub-Saharan Africa (Potts 2008). This occurred at a time when urban populations were increasing rapidly as the result of both overall population growth and urbanisation.

Recent international economic crises and structural reforms have also contributed significantly to the growth of the urban informal economy. A study by Horn (2011) in 14 urban areas in 10 countries across Africa, Asia and Latin America assessed the impact of the economic crises on informal workers, and showed that persistent unemployment and underemployment in the formal economy continue to drive new entrants into informal employment. In São Paulo, between 1989 and 1999, public sector employment decreased from 635,000 to 609,000 and salaried jobs declined from 3.4 to 2.9 million, while the informal labour force increased from 3.4 to 3.7 million, at an annual growth rate of 4 per cent (Montgomery *et al.* 2004). Al-Sayyad and Roy (2003) argue that these economic trends have resulted in "an exploding informality" in terms of forms of income generation, but also forms of housing and settlement.

The links between living and working informally in urban areas are discussed in further detail below (Section 3.4).

The growth of the urban informal economy has challenged assumptions about the role of industrialisation in development. The post-World War II assumption underpinning traditional development planning thought was that urban industrialisation and modernisation would inevitably absorb the informal 'pre-modern' sector, and create sufficient and well-paid employment, as developing countries progressed through the stages of development (as theorised by, for example, Rostow 1960). Lewis (1954) in his seminal paper, 'Economic Development with Unlimited Supplies of Labor', claimed that the growth of modern capitalism would attract labourers in the 'subsistence' sector to the capitalist sector, leading to the contraction of the former. But, as shown above, this has not occurred in many low- and middle-income countries, where industrialisation and formal service activities have failed to create sufficient growth in urban areas. In reality, the informal economy has expanded, particularly in urban areas.

Various schools of thought have emerged to conceptualise the informal economy and to explain its general growth. The following subsection gives an overview of these schools and examines their implications for better understanding the informal economy and its key features in urban areas.

2.2 Traditional schools of thought on the informal economy

There are various ways in which the informal economy and its growth can be understood in theory and acted upon in practice. Table 3 summarises the four traditional schools of thought, including their different views and focuses, causal theories, policy recommendations and major proponents.

While this summary table focuses on the contradictions between these different schools of thought, the literature associated with each is full of important if contrasting insights. The economic reformist school was the first to recognise the importance of the informal economy, and how its presence confounded the conventional rhetoric of planning. It called for a policy response that recognised the importance of activities taking place unofficially. It drew attention to the diversity of the informal sector, without fully exploring the implications. The legalist school has emphasised the entrepreneurial and economic potential of parts of the informal economy, identifying some of the negative ways in which the state has introduced procedures and regulation inhibiting this potential, and failed to provide the legal basis – and in particular the property

Table 3: Key features of the major schools of thought on the informal economy

SCHOOL OF THOUGHT	GENERAL VIEW AND FOCUS	CAUSAL ROOTS OF INFORMAL ECONOMY	POLICY RECOMMENDATIONS	MAJOR PROPONENTS
Economic reformist	The informal economy is a pre-modern sector acting as an intermediate space between the mainstream formal system and complete unemployment. Focused on 'survivalist' activities by the working poor with few (if any) links with the formal economy.	Labour supply far exceeding the demand brought about by industrialisation.	More state regulation designed to foster informal productivity and more appropriate forms of access to resources, including capital, in addition to the removal of unnecessary state restrictions.	Hart (1978); ILO (1972)
Legalist	The informal economy is a market-led response by entrepreneurs to excessive state regulation (as opposed to a temporary condition of excess labour supply). Focused on 'plucky' micro-entrepreneurial activity.	Excessive state regulation.	Less state regulation and more free market policies designed to enable/unlock the growth potential of informal entrepreneurs (particularly through the legalisation of informal property rights).	de Soto (1989, 2000)
Voluntarist	The informal economy is a result of producers and traders who choose to operate informally after weighing the costs and benefits of informality versus formality. Focused on opportunistic informal producers and traders.	Efforts to avoid taxation and costly regulation in the formal economy.	Bringing of informal firms and their workers into the formal regulatory environment in order to increase the tax base and reduce unfair competition to formal businesses.	Levenson and Maloney (1998); Maloney (2004)
Structuralist	The informal economy is an attempt by formal sector capital, acting with the complicity of the state, to reduce wages and enhance flexibility by exploiting unprotected informal workers. Focused on vulnerable workers exploited by formal sector capital.	Capitalist growth in the context of economic crises.	More regulation of commercial and employment relationships between the informal and formal economies in order to address unequal relationships between 'big business' and subordinate producers.	Castells and Portes (1989); Moser (1978)

Source: Derived from Chen (2012), pp. 4–6.

rights – for these producers to be able to compete and accumulate capital. It has tended to ignore those segments of the informal economy where property rights are strong, but workers' rights to social protection and a healthy working environment rights are lacking. The voluntarist school has emphasised the negative features of parts of the informal economy, pointing to some of the dangers associated with the state failing to engage constructively with small enterprises and low-income employees. But it has tended to ignore the state failures when it does engage. The structuralist school has pointed to those segments of the informal economy with particularly close links to formal enterprises, and the ways in which parts of the informal economy can serve powerful private interests in the formal economy more than informal economy workers themselves. It has tended to ignore the ways in which informality can also challenge powerful interests (Lindell 2010).

As such, every school has its own particular focus and policy concerns, and collects evidence and undertakes analysis informed by these concerns. While their conclusions may be contradictory, and in some cases their evidence and argumentation may be biased, the evidence and analysis provided by each are often complementary, and combine to provide an account of an informal economy that displays enormous variations. Informality has very different implications for small food vendors in a low-income neighbourhood, people employed off the books by large firms, waste pickers at a local dump, loom operators working at home to supply large textile firms, women working without pay in their own homes and women working as domestic servants in the homes of others. The character and dynamics of the informal economy also depend heavily on local circumstances, as well as national and international pressures. Whatever school one favours, it is important to recognise that their generalisations tend to apply more to some parts of the informal economy and less to others, and that important research has been undertaken within each of the schools.

Although issues of inclusion are central to much of the research on the informal economy, achieving a green and climate resilient economy is not. As such, the following analysis is primarily suggestive of how each school might engage with this:

1. **Economic reformists** would probably be inclined to advocate more explicit recognition of the urban informal economy and its dynamics as a precondition for achieving a greener and more climate resilient economy. Approaches that focus solely on the formal economy, and ignore the extent to which actual practices depart from formally accepted arrangements and practices, are unlikely to succeed. They risk ignoring a wide range of urban informal activities which need to be encouraged or changed if greener and more resilient economies are to be achieved. As long as the informal economy is large, and especially if it is growing, it is critical to find better ways of supporting its green and climate resilient aspects and reducing its environmental burdens – and this will not be achieved simply by promulgating more formal regulations in danger of being ignored or used inappropriately.
2. **Legalists**, often of neoliberal persuasion, may be inclined to advocate market and property based solutions to environmental problems even in the informal economy. They are more likely to focus on those disadvantaged segments of the informal economy where enterprises and workers lack the necessary legal basis for economically efficient market production, and point to the negative environmental consequences of the resulting economic inefficiencies. They would emphasise the importance of tapping the innovative potential of informal enterprises, through stronger property rights for those operating in the informal sector, not only to achieve greater productivity among small enterprises (enhancing inclusion), greater flexibility (enhancing climate resilience), and greater efficiency and resource efficiency (enhancing the greening of the economy). They might also argue that stronger property rights within the informal sector would provide producers with a better basis for engaging around public environmental issues and regulations. But they would probably be reluctant to advocate environmental regulations except where these can be thoroughly justified economically and implemented efficiently.
3. **Voluntarists** would potentially be inclined to advocate extending environmental regulations as part of a necessary formalisation process, leading to a better regulated economy, with fewer environmental burdens. They would be likely to emphasise those parts of the informal sector that are not so disadvantaged, along with the environmental burdens that arise as the result of allowing an important part of the economy to persist outside of formal regulatory frameworks and compete 'unfairly' with formal enterprises. They might also see formalisation as a means of curbing the tendency for small enterprises to locate in disaster prone informal settlements, thereby improving climate resilience. And formalisation would remove the trade-off between inclusion and green goals, by helping to secure social protection and benefits for the previously informal workers.

4. **Structuralists** would be likely to advocate measures making large formal enterprises more accountable for the environmental damage brought about by their informal partners. They would be inclined to emphasise situations where, for example, more formal enterprises are contracting out environmentally damaging activities to informal enterprises whose practices are not being regulated. Under such circumstances, informal enterprises are not so much competing with formal enterprises as serving them. The structuralists would also pay particular attention to how processes like globalisation can influence the role of informality, undermining resilience and compromising the capacity of the state to respond to environmental challenges.

There is a sense in which the structuralist approach, with its emphasis on the relations between the formal and informal economies, provides the basis for integrating the different perspectives. The structuralists conceptualise the informal economy as inextricably linked to the formal economy through complex relations of labour and production (Meagher 1995). Castells and Portes (1989) identify three particularly important issues to consider within this conceptualisation:

1. The features of differentiation within the informal economy and the specific character of its labour force
2. The linkages and relations with the formal economy, and
3. The attitude of the state toward the informal economy.

As highlighted by Meagher (1995), these issues point researchers toward a well-grounded empirical analysis of informal actors as involved in various economic activities and labour relationships with the formal economy. They are also reflected in a number of holistic conceptual frameworks (see Chen 2012, pp. 8) that have been developed over the last 15 years to take into account the variety of informal activities and categories of informal workers, as well as the linkages of the informal economy with the formal economy and formal regulations. These issues seem particularly important to understand in developing policy approaches that are capable of engaging with the informal economy in a more effective and inclusive way.

This paper uses these issues as a framework for developing a better understanding of how this can be achieved in practice. The following section examines the first two issues, while Section 4 addresses the third. Section 5 then draws out and discusses the implications for achieving urban economies that are greener, more climate resilient and more inclusive.

3

Key features of the urban informal economy

Over the last two decades, researchers have shifted away from definitional debates on the informal economy to assessing its key features and relations with the formal economy (Chen 2007, 2012; ILO 2013a; Meagher 2013). Based on a review of the literature, four key features stand out as particularly important to consider in urban areas: the continuum of economic relations; segmentation and differentiation; legality and semi-legality; and exclusion and dispossession. This section examines these features, draws links to environmental concerns where possible, and concludes by assessing the extent to which the major revisions to conventional statistical definitions assist in addressing the issues that emerge from these features.

3.1 Continuum of economic relations

The rapid growth of the urban informal economy in the context of the ongoing global (formal) economic crises has attracted increased interest in the relations between the informal and formal economies (Meagher 2013). These relations – of production, distribution and employment – occur at various points along a continuum, from entirely 'informal' relations (i.e. unregulated and unprotected) at one end to entirely 'formal' relations (i.e. regulated and protected) at the other, with various hybridised categories falling in between (Chen 2007). In focusing primarily on informal enterprises and labour in this working paper, forward and backward linkages and labour market linkages, respectively, are particularly important to consider. These linkages are examined below (for a comprehensive review see Meagher 2013), with a particular focus on whether they are delivering economic benefits to informal enterprises and their workers in urban areas.

3.1.1 Forward and backward linkages

Studies on interfirm linkages between the informal and formal sectors in the 1990s emphasised the importance of forward linkages through subcontracting with the formal sector in promoting economic growth and development in the informal economy (eg Ranis and Stewart 1999). Such studies commonly distinguished between a 'traditional' segment and a 'modernising' segment among informal enterprises, and argued that forward linkages between the modernising segment and a rapidly growing formal sector would increase competitiveness and economic growth in both the informal and formal economies (ibid).

In countries with particularly weak modernising segments, however, backward linkages through attaining inputs from the formal sector have become predominant, as indicated by a number of studies in sub-Saharan Africa (Arimah 2000; Bohme and Thiele 2014; Meagher 2007, 2010; Meagher and Yunusa

1996; Pedersen and McCormick 1999; UNIDO and GTZ 2008). Informal enterprises in this context often purchase inputs from formal markets at retail prices, but sell their outputs in informal markets, because the buyers lack capital and easy access to formal markets (Meagher 2013). The studies cited above generally show that backward linkages create an exploitative environment in which formal enterprises capture the majority of profits from informal value chains, thereby undermining economic growth and development in the informal economy.

Literature on interfirm linkages has been superseded by a more sophisticated analytical perspective on global value chains (GVCs) (ie global networks of economic relations of production and distribution) (Carr and Chen 2002). While some emphasise the economic benefits of formal-informal linkages in GVCs (Dunn and Villeda 2005; Grant and Oteng-Ababio 2012; Murphy 2007), others emphasise their economic detriments within processes of outsourcing and labour informalisation generated by GVCs (Barrientos 2000; Barrientos *et al.* 2003; Carr and Chen 2002; Nadvi 2004; Oxfam 2004; Phillips 2011; Ruthven 2010). For instance, Carr and Chen (2002) show how globalised production systems frequently use subcontracting, temporary employment and casualisation as a deliberate practice of 'disguised employment' to evade labour regulations and costly social protection policies. This form of employment leaves workers without legal recognition or protection (for a useful review see Chen 2012, p. 13), which has often resulted in increased occupational risk, particularly among women and child labourers (Box 2).

The shifting of certain segments of the value chain to informal operators who are not subject to labour regulations and costly social protection policies has its parallel in relation to environmental regulations. As in the case of working conditions, when it comes to informality and environmental pollution and degradation, it is important to consider relations between formal and informal enterprises. This applies both when informal enterprises undercut formal enterprises by flouting environmental regulations and when informal enterprises allow formal enterprises to get around environmental regulations by in effect contracting out environmentally burdensome activities to informal enterprises. In the case of India, for instance, Chattopadhyay and Banjerjee (2013) question the ability of more stringent formal regulations to promote the adoption of cleaner industrial

BOX 2: GLOBALISED PRODUCTION SYSTEMS, SUBCONTRACTING AND THE INFORMAL GARMENT INDUSTRY IN DHAKA, BANGLADESH

A number of major discount global retailers outsource manufacturing to low- and middle-income countries, such as Bangladesh, where cheap labour and lax regulatory frameworks can be found. It is an open secret that manufacturers in Dhaka's formal sector subcontract orders to informal garment enterprises to keep costs down. In theory, forward linkages between informal garment enterprises and fast growing formal manufacturers promote economic development and growth in the informal economy. In practice, intense competition between informal enterprises and profiteering intermediaries keeps returns for informal enterprises and wages for their workers low. Most of the profits are ultimately captured by the global retailers that rely on informal value chains to ensure profits for their low-cost clothing.

Moreover, informal enterprises in Dhaka have few, if any, safety protocols or social protection arrangements for their workers, many of whom are women (Absar 2002). Consequently, working environments can be extremely hazardous, particularly in precariously constructed factories. This was made evident by the collapse of Rana Plaza – an eight-storey garment factory with close links to major corporations – in April 2013. Estimates suggest that more than 1,100 people were killed and another 2,500 injured, making it the deadliest garment factory incident in history. As similar factories continue to be constructed without conforming to building codes and standards, there is growing concern among local humanitarian actors that the rapid growth of the garment industry will increase the number of hazardous employment opportunities for children and other vulnerable labourers, including women.

This case shows how forward linkages within global production systems can act as mechanisms of exploitation and risk production as well as mechanisms of economic growth and poverty reduction in the informal economy, quite likely increasing global poverty. It also shows how the profitability of formal sector enterprises can become largely dependent on the urban informal sector within GVCs.

Sources: Key informant interviews by Donald Brown in Dhaka (September 2013); see also Brown and Dodman (2014); North (2013)

production techniques because formal firms would likely "pass on the polluting process to the informal sector units through outsourcing and subcontracting" (p. 25).

3.1.2 Labour market linkages

The literature on labour market linkages examines how and why informal workers move along the continuum between informal and formal enterprises, often working simultaneously at different points (Chen 2007). This literature reflects the growing awareness that trends in labour markets (particularly growing casualisation, as mentioned above) have increased the level of insecurity and reduced the levels of supervision, protection and employer accountability in formal employment (Mitlin and Satterthwaite 2013).

Those of the voluntarist school contend that labour movements are determined by individuals seeking to maximise their incomes and flexibility by opting out of taxation and costly social protection in the formal economy (Jäckle and Li 2006; Levenson and Maloney 1998; Maloney 2004; Perry *et al.* 2007). However, others argue that workers do not so much opt out of the formal economy as circulate between the formal and informal economies in a process of 'churning' motivated by economic insecurity (Altman 2008; Valodia and Devey 2010). This literature considers other types of linkages, such as household straddling and labour brokering. It suggests that formal sector employers, rather than informal operators, reap most of the economic benefits of labour movements into the informal sector, and that informality excludes workers from the benefits of supportive labour regulations as well as the burdens of inappropriate labour regulations. Much the same can apply to environmental regulations, though in this case those who lose out from the hazards associated with the regulations being circumvented are not restricted to those in the informal sector itself.

Conflicting viewpoints are also present in a number of Indian studies reviewed by Meagher (2013) on the benefits of labour market linkages in the context of liberalisation and globalisation. Siggel (2010) argues that dynamic 'win-win' linkages are created by movements of skilled labour into the informal economy, and shows that subcontracting and rising exports generate demand for skilled informal labour, thereby enhancing competitiveness without decreasing informal wages. Conversely, several qualitative studies in India (Breman 1996, 2010; Harriss-White and Guptu 2001) show that widespread subcontracting and casualisation have intensified poverty and vulnerability among informal workers, despite high levels of labour mobility. They also show that linking labour markets with global market forces often creates exploitative labour and contracting relationships, as exemplified by the case of the garment industry in Dhaka (Box 2).

Overall, these findings suggest that a significant number of workers are not benefiting from informal-formal linkages, particularly where industrial growth is occurring in the context of liberalisation and globalisation. Moreover, it is evident that a significant and growing number of workers in lower income countries are being forced into survivalist activities in informal settings where their access to legal protection is very limited. This is particularly evident in urban areas, where urbanisation has not been accompanied by sufficient growth in the modern industrial sector, as seen widely in sub-Saharan Africa, and especially where formal regulatory frameworks have not been appropriately changed to reflect this reality. The disadvantages faced by these workers have motivated researchers to develop a better understanding of the inequalities within informal labour markets, which are examined below. Some of these disadvantages involve environmental hazards.

3.2 Segmentation and differentiation

The concept of segmentation seeks to capture and analyse the highly differentiated nature of the informal economy, including its various employment arrangements (Chen 2012), groups of workers (Chen *et al.* 2004) and types of enterprises (Grimm *et al.* 2012; Nichter and Coldmark 2009). Flowing from the findings above, this subsection focuses on the poorest and most vulnerable workers, including women and children, and on the disadvantages and risks they face within particular segments of the urban labour market.

3.2.1 Employment segments

Flexible labour relations between the informal and formal sectors have created a segmented labour market characterised by different types of employment. Chen (2012, p. 7) divides this segment into two useful categories: self-employment and wage employment. Other informal work is undertaken outside of the labour market, including the large amounts of unpaid work undertaken within the household.

Informal self-employed workers in small and/or unregistered informal enterprises – This includes employers, own account operators (both single person operators and heads of family enterprises), unpaid family workers (in informal and formal enterprises) and members of informal producers' cooperatives. According to the ILO (2013b), this category accounts for a larger share of non-agricultural informal employment than wage labour, and a significant share of total employment. Specifically, it accounts for nearly one third of total non-agricultural employment in the world, 53 per cent in sub-Saharan Africa, 44 per cent

in Latin America, 32 per cent in Asia and 31 per cent in North Africa (ibid). However, these figures would likely be much higher if unpaid domestic and care work were taken into account, as discussed in Section 3.2.2 below.

Self-employment is also highly prevalent in low- and middle-income urban areas, where there appears to be growing polarisation within the informal economy, as some entrepreneurs move into sectors formally occupied by the public and private sectors, while others "swell the ranks of survivalist activities" (Watson 2009b, p. 157; see also Al-Sayyad and Roy 2003). According to Potts (2008), this trend was stimulated – particularly in sub-Saharan Africa – by the effects of SAPs "in the negative sense of forcing the retrenched and new job seekers into self-employment in order to survive" (p. 159). As shown by Section 2, the trend toward informalisation is continuing, particularly in the context of urbanisation without sufficient levels of economic growth (Elgin and Ovyat 2013).

Informal wage employment in informal and formal enterprises without formal contracts, worker benefits or social/labour protection – This includes employees of informal enterprises, other informal wage workers (eg casual or day labourers, domestic workers, unregistered/undeclared workers, temporary or part-time workers, unregistered or undeclared workers, industrial/homeworkers, etc). As discussed above (Section 3.1.2), this type of employment emerged with the rise of subcontracting production to informal enterprises, which has become increasingly popular with liberalisation and globalisation. According to Chen (2007), this kind of employment occurs in low- and middle-income countries where labour costs are low, and where there is little threat of wage increases due to weak legislation, unionisation and welfare systems.

According to Chen (2007, p. 9), "there is often further segmentation between the core semi-permanent workforce and a peripheral temporary workforce that is mobilized during peak seasons and demobilized during slack seasons (what has been called permanent temporary workforce)". In such cases, it is often the formal firm, rather than the informal workers, that decides to operate informally and reap the economic benefits of informal value chains (ibid).

Informal household work without pay – This would primarily include women's work in and around the home, as well as contributions from male members, but is not part of the labour market or the informal economy conventionally defined. It represents an important segmentation of informal work, however, and is particularly important when it comes to gender inequalities.

3.2.2 Income and gender inequalities

The literature widely shows that income and gender inequalities pervade the informal economy, regardless of spatial location or the particular activity/occupation (Mitlin and Satterthwaite 2013). With regard to income, significant gaps in earnings exist within the informal economy. On average, employers have the highest earnings, followed in descending order by: their employees and other more 'regular' informal wage workers; own account operators; 'casual' informal wage workers; industrial outworkers; and unpaid family members (Chen 2007, 2012). With regard to gender, women disproportionately work in low-paid or unpaid informal jobs, for example as home workers, unpaid family workers, industrial workers and informal wage workers, while men tend to work in higher-paid work, as employers and regular wage workers (Chant 2013; Chen 2010). Women also tend to concentrate in more precarious forms of paid work (Chen *et al.* 2004), in part because they need to balance their primary responsibility for unpaid domestic work (Tacoli 2012).

Some of these gender inequalities are evident in Table 4, which also displays the considerable regional diversity in the composition of informal employment. In every region, women are less concentrated in the employers category than men (except in East and Southeast Asia, where the proportions are the same), and more concentrated in the category of contributing family members. In sub-Saharan Africa and East and Southeast Asia, women are more concentrated than men in the own account workers category, and less in the wage workers category.

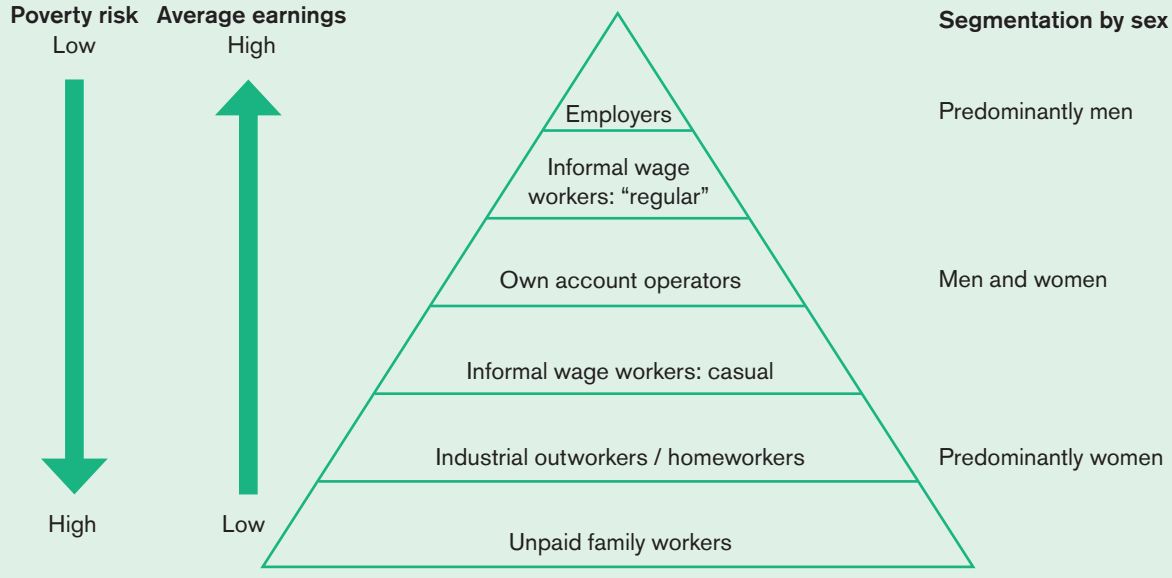
These gendered income inequalities are illustrated in Figure 2, which is based on the WIEGO Model of Informal Employment. The diagram itself is ambiguous as to whether unpaid domestic and care work within the home is included in the pyramid, though it would conform in that earnings are particularly low while the predominance of women is particularly high. The link with the poverty risk is less clear as women in higher-income households often have significant unpaid domestic responsibilities.

Table 4: Breakdown of women and men in informal employment by category of informal non-agricultural employment (row percentages summing to 100±1)

		WAGE WORKERS	SELF-EMPLOYED		
			EMPLOYERS	OWN ACCOUNT WORKERS	CONTRIBUTING FAMILY WORKERS
Latin America and the Caribbean	Women	49	2	41	9
	Men	48	5	43	4
Sub-Saharan Africa	Women	24	1	60	15
	Men	42	3	47	8
Eastern Europe and Central Asia	Women	72	1	20	6
	Men	52	2	41	5
South Asia	Women	42	0	32	26
	Men	49	2	41	9
East and Southeast Asia (not China)	Women	39	9	38	15
	Men	56	9	31	5
China	Women	52	12	27	8
	Men	47	19	32	2

Source: Vanek *et al.* (2014)

Figure 2: Hierarchy of earnings and poverty risk by employment status and sex



Source: Chen (2012)

In urban settings, Tacoli (2012) argues that there is a distinctive gender dimension of urban poverty that arises from a combination of low-income, inadequate and expensive accommodation, limited access to basic infrastructure and services (many of which are commoditised in urban areas), exposure to environmental hazards, and high rates of crime and violence. These deprivations and risks further contribute to the burden of domestic work among women, who are responsible for cooking, cleaning, and caring for children, the sick and the elderly. Often this work servicing the household is supplemented by income generating activities in or outside of the home. When poor urban women work outside the home, they often work in the lowest-paid jobs and work the longest hours (ibid; Chant 2013).

These gender inequalities are introduced at an early age. For instance, Brown and Dodman (2014) found that poor girls in Asian cities are commonly burdened with the additional responsibility of unpaid domestic work, leaving them with less time for reading, studying and school. Moreover, as the impacts of climate change worsen, girls will have to commit more time to complete routine domestic chores, such as collecting water and caring for the sick (Alber 2009; Bartlett 2008). Addressing these gendered inequalities will therefore be critical for building urban climate resilience in low- and middle-income urban centres.

For women and girls, worsening environmental conditions in combination with other risks will intensify the challenge of accessing many of the advantages of urban living, including access to education as a means of attaining quality employment with higher income in the formal economy. Without quality housing with adequate provision for basic infrastructure (such as safe drinking water and adequate sanitation) and services (such as health care), gender disadvantages related to the burden of domestic work and care are likely to worsen (Tacoli 2012). The importance of addressing these deficits through environmental planning and management is largely overlooked in the literature on education and livelihoods (with the notable exception of Chant 2013), which tends to focus primarily on income earning and enterprise (Mitlin and Satterthwaite 2013). Yet the environmental burdens in and around the home, including those associated in the first instance with informal settlements, often relate to informal domestic responsibilities such as those involving sanitation, water collection and waste disposal, which are themselves gendered. Moreover, the environmental burdens incurred in informal settlements without access to public services often have consequences that spill over to affect the market based informal enterprises, especially those involving women who are more likely to work locally.

The ILO (see 2002b), however, does not include the reproductive or care economy in its definition, "because the informal economy is defined as part of the market economy: that is, as producing goods and services for sale or some other form of remuneration" (ibid, p. 12). This omission seems difficult to justify considering the vital role that women's unpaid reproductive work plays in "ensuring the daily regeneration of the urban labour force and the very function of urban life" (Chant 2013, p. 23). On the other hand, this omission is not terribly surprising given that women's domestic and care work has long been undervalued and undersupported within research and policy circles, particularly in urban areas (ibid). If this kind of work were to be included, then other questions would need to be addressed, such as considering whether households should be seen as a form of enterprise, and whether the gendered aspects of informal employment, and for example the unpaid contributions of family members to household enterprises, can really be kept distinct from those related to unpaid domestic and care work within the home.

Moreover, as noted above, there are important analogies between the ways in which formal firms often take advantage of informal enterprises, to avoid the economic costs of restrictive environmental and labour regulations, and the ways in which male 'household heads' often take advantage of informal work undertaken within the household. These gender aspects are often at least indirectly linked to gender roles within the home. The shifting of responsibility for certain activities to informal workers to avoid the costs of maintaining acceptable working and environmental conditions has an analogy with the way in which women can be informally exploited in their work for the 'household' when gendered power relations are imbalanced and interests are divergent – as is often the case. Moreover, as already noted above, women working informally within or out of the home are often at a disadvantage when competing for formal employment, not least because formal employment regulations and procedures are not designed for people with heavy and variable domestic and other informal obligations, and in effect are biased against women. This can also then extend to other forms of planning bias, as when transport planning "ignores women's dominance in domestic, informal, part-time work in non-centralized zones, non-peak journeys and disproportionate household and care burdens – reflected in 'trip chaining', which refers to multi-purpose, multi-stop excursions" (Chant 2013, p. 21). While the statistics separate informal and unpaid domestic work from the informal economy, the logics of informality do not.

3.2.3 Green and brown segments

There are many segments of the informal economy with varying levels of environmental performance. On the one hand, Benson *et al.* (2014a) draw on a number of cases to examine the untapped potential of greening a range of informal activities that benefit the poor. These include waste management (through, for example, efforts to prioritise the 3Rs of Reduce, Recycle and Reuse); agrifood markets (through, for example, the use of green technologies by smallholder farmers to increase their yields); artisanal mining (through, for example, development of appropriate incentives to adopt cleaner technologies and processes); energy delivery (through, for example, enabling of biomass energy markets); and housing and infrastructure (through, for example, 'slum' upgrading processes that enhance resilience to climate change and reduce environmental hazard risks). In doing so, Benson *et al.* show that many of these informal activities are not necessarily more harmful to the environment than formal activities, and indeed that informal activities can be more sensitive to environmental degradation and the impacts of climate change, and hence more active in finding solutions. The cases presented shed light on how the informal economy can be part of the solution, rather than the problem, and help to achieve greener, more inclusive economies.

On the other hand, it is also important to consider the innumerable examples of informal activities that are neither green nor socially just (eg Box 3). Worsening health and environmental problems in rapidly growing cities are widely blamed on polluting informal activities, which, if permitted to continue, would make cities even more unliveable and unsustainable. The drive for sustainability, and now green economies, continues to emphasise long-term environmental security, but without fully considering the pressing need to improve the unacceptable living and working conditions of the urban poor. As stressed by McGranahan *et al.* (2001, p. 10),

BOX 3: BATTERY PRODUCTION AND LEAD RECYCLING IN THE INFORMAL ECONOMY

Lead recycling in low-income countries often takes place in unsafe, unhealthy and environmentally hazardous conditions, in informal 'backyard' smelters and battery reconditioners, which typically occupy small repair shops along main city roads.

This recycling supports the livelihoods of many thousands of people, and supplies poorer areas of the city with cheap reconditioned batteries. It also, however, contributes a disproportionate share of pollution arising from the recycling of lead acid batteries in most low- and middle-income countries. Although operating practices and working conditions in the informal economy vary considerably, the following are reported to be generally true:

- There are few or no facilities for the neutralisation and safe disposal of battery electrolyte. Hence acidic effluent percolates into the water table, rivers and sanitary system.
- Occupational hygiene is poor and few operators wear more than a wet towel to protect themselves from the lead fumes.
- There are few furnace exhaust control systems to prevent atmospheric pollution.
- Furnace residues are unstable and leachable, and tend to have a high lead content. The residues are either dumped indiscriminately around the premises of the unlicensed smelter or are sent to landfill.
- Many of the informal operations are located close to shops and homes, increasing the risk of population lead exposure.

Despite these practices and conditions, the social impact of policies and regulations aiming to reduce pollution exposure and environmental degradation cannot be overlooked when many urban poor households and communities rely on these informal activities for their livelihoods.

Moreover, the problems with battery recycling in the informal economy should not detract from the role of the formal sector. A recent review (Gottesfeld and Pokhrel 2011) found that the battery industry consumes an estimated 80 per cent of lead production, and about half of lead production is from recycling lead in batteries. In low- and middle-income countries, studies have found that workers in manufacturing plants, and even more so in recycling facilities, had worryingly high blood lead levels. Airborne lead concentrations in battery plants were also very high, as were the blood lead levels of children living in the vicinity of battery plants (the geometric mean from the reviewed studies in developing countries was about 13-fold greater than the levels observed among children in the United States).

Sources: Up to the last paragraph, the source is a summary of lead recycling prepared by the International Lead Association (nd). The last paragraph is based on Gottesfeld and Pokhrel (2011), who make no explicit distinction between the informal and formal economies.

"there is a serious danger that as new 'green' concerns are added to the environmental agenda, the 'brown' concerns will be neglected or misrepresented".

The environmental dimensions of the pro-poor agenda for transforming the informal economy need to address issues of the working environment (ideally including unpaid domestic and care work), and the health threatening hazards imposed on informal sector workers, often without their full knowledge. If the pursuit of a green economy were used to justify giving more support to the recycling aspects of informal waste work, to the neglect of the environmental health conditions of the workers, this would put the green economy agenda for informality in opposition to that of inclusive urban planning (see Section 4.1 below) and the brown environmental agenda. The challenge of inclusive green economies is therefore not just how certain informal segments can contribute to greening the economy, but also how unsustainable and unjust segments can be greened inclusively.

Depending on the way they are conceived and implemented, activities intended to build urban climate resilience can also be at odds with a more inclusive economy. In common with any other urban environmental intervention (Harvey 1996), resilience plans and projects have different effects on different segments of the urban population. The same politics and governance that make certain groups particularly vulnerable to climate change can put them at a disadvantage when it comes to measures to increase climate resilience. For example, an approach to resilience that emphasises the reduction of risk within a particular spatial area may be used as justification for further erosion of the rights of residents of informal settlements, potentially including relocation. This is primarily a matter of interpretation and application, which depends in turn on power and politics. If the rights and responsibilities of 'agents' are taken seriously, resilience has the potential to contribute significantly to urban inclusion. However, as described in Section 3.4, there are urban settings where exclusion and dispossession are common.

3.3 Legality and semi-legalities

In addition to being viewed as a polluting sector, the informal economy is widely viewed by officials as 'illegal', because its processes and arrangements do not (fully) conform to regulatory frameworks. In practice, however, legal status is blurred by a variety of dynamic arrangements and negotiations between state and non-state actors. For instance:

- Most informal enterprises produce and trade legal goods and services, although their production practices and employment arrangements are often semi-legal or illegal (Chen 2007). In addition, the proportion of the informal economy that produces and trades illegal goods and services is relatively small (ibid), as activities that are antisocial in intent are generally not considered part of the informal sector.
- Informal enterprises may operate illegally or semi-legally, because the regulatory environment is too costly, too cumbersome or simply non-existent (Chen 2007).
- Local policies are often negotiated between informal and formal actors (Mitlin and Satterthwaite 2013). For example, unregistered traders in Dar es Salaam, Tanzania (Nnkya 2006) have been able to gain a degree of formality by paying a daily operating fee to the sub-ward office. This practice reflects an acknowledgement that the informal sector is a legitimate part of the economy, even though it may not entirely conform to, or operate within, official rules and regulations.
- In contrast to the previous point, the legal framework is often modified in practice through informal negotiations that offer the advantages of informality to formal enterprises (Mitlin and Satterthwaite 2013). For example, by-laws in Kumasi, Ghana are largely ineffective because of the dominance of personal relations over official rules and regulations (whereby some traders benefit from personal links and exchange political support and information for non-interference) and because of ambiguities in the by-laws themselves (King 2006). The poorest and smallest traders, however, continue to be harassed for non-compliance, even though many pay daily operating fees (ibid).
- Many and perhaps most informal operators would be willing to pay fees and taxes if they were to receive the benefits of formal status (Chen 2007). For example, street vendors who pay both legal and illegal fees desire the security that comes with legal recognition (Chen *et al.* 2004).
- In terms of informal wage work, enterprises, rather than their workers, are often the ones seeking to avoid registration and taxation (Chen 2007). Such enterprises also seek to avoid costly regulations, which can intensify the vulnerability of their workers to various occupational hazards, including man-made disasters. For example, in Dhaka, growing numbers of garment factories are being built without complying with building codes or safety standards (Box 2), as is also the case with brick and carpet factories in Kathmandu, Nepal (Brown and Dodman 2014).
- Informal processes – particularly involving land development – often openly contravene regulations,

Table 5: Subcategories of informal and formal work and their implications for poverty

LEGAL STATUS	LEVEL OF COMPLIANCE AND LEGALITY	RELATION TO POVERTY
Formal	Processes comply with regulations and activities are legal	Formal sector, waged employees. The relationship between these enterprises and poverty depends on the regulatory framework and capacities of the state. Does a minimum wage exist and is it sufficient for survival? Are there enforced standards for safe working conditions?
	Deviations from processes and/or illegal activities (eg illegal dumping of waste, tax evasion, illegal employment)	As previous, plus potential dangers for the general public and consumers (who may lack the resources they need to protect themselves). The relationship between these enterprises and poverty depends on compliance with regulations, including governmental capacity to enforce them and the ability of workers' and citizens' organisations to monitor and report.
Informal	Registered informal	These companies are likely to have low capital investment and relatively low earnings for the entrepreneur. Any workforce is likely to be paid very little and minimum wages may not be enforced.
	Not registered but paying daily charges for trading or other activities	As above, plus the additional charges; however, these charges may be less than those informally imposed by rent seeking individuals able to exert control over the business owner. These enterprises are unlikely to have substantial capital investments.
	Non-compliant in processes but activities legal	Vulnerable due to illegality. Likely to be unregistered due to inability to pay. May have to make payments to others able to extract resources due to lack of formal status.

Source: Mitlin and Satterthwaite (2013, p. 159)

yet are unofficially sanctioned by the state. For example, in Kampala, Uganda, land is often accessed and subdivided by and through multiple non-state and state actors (including planners and surveyors) who constantly cross the formal-informal divide in illegal ways (Nkurunziza 2007).

These practices and arrangements can create a large grey area between fully legal and unambiguously illegal enterprises and activities, particularly in urban areas where rules and regulations are frequently negotiated or circumvented by informal actors (and the private formal sector) with the complicity of the state. Moreover, informal activities deemed to be illegal often include the poorest and most vulnerable workers, many of whom have no acceptable choice but to avoid regulations because they are too onerous or designed with wealthier citizens and workers in mind. As a result, many regulatory frameworks ultimately serve to exclude those who cannot afford to comply, or to alienate those who have nothing to gain by complying (particularly in terms of the security and protection offered by formality). In reality, many of the activities viewed by the state as illegal are actually closer to semi-legal or legal in practice, depending on what has been arranged or negotiated.

Mitlin and Satterthwaite (2013) provide a table (Table 5) that further nuances the distinction between informal/illegal and formal/legal activities by presenting a set of subcategories of formal and informal work and their implications for poverty. Like the continuum of economic relations discussed above, this table sees economic activities as falling along a continuum between informality/illegality and formality/legality, which reflects the range of informal/formal arrangements outlined above.

A superficial reading of this table might conclude that informal enterprises are inherently more damaging environmentally, and that formalisation, and particularly a more vigorous enforcement of environmental regulations, would be environmentally beneficial. For reasons already alluded to above, however, such conclusions are unwarranted. There will be cases where informal means of environmental improvement are reasonably effective, particularly if they are given support. Moreover, there are circumstances where the vigorous enforcement of economically damaging environmental regulations will push the informal economy further into the black or illegal economy, making it harder to support environmental improvements.

3.4 Exclusion and dispossession

Many governments in rapidly urbanising countries view the proliferation of the informal economy (including informal or 'illegal' settlements) as a reflection of excessive rural-urban migration (even though more than half of urban population growth, even in countries that are still urbanising, is now attributable to natural increase) (Tacoli *et al.* 2008). Disapproving officials may even claim, without much evidence, that improving access to urban services in informal settlements and making it easier for informal enterprises to operate will only attract more migrants to overburdened cities (McGranahan *et al.* 2008). This logic implies that rural-urban migration should be limited to a level commensurate with available (formal) jobs and services (Tacoli *et al.* 2008). This ignores the vital role that informal settlements play as the place of residence for the majority of low-income informal workers (migrants and non-migrants alike), who constitute the lifeblood of many essential urban economic functions (UN-Habitat 2003).

Conventional policy responses do not plan for the growth in the informal economy and informal settlements, but nor do they successfully prevent it from occurring. From the perspective of those reliant on the informal economy and informal settlements this may be better than using existing regulations to justify draconian measures closing down informal enterprises and evicting those in informal settlements. However, it can undermine more inclusive approaches, and in the case of informal settlements makes it more difficult for residents to access basic infrastructure and services. Indeed, some governments have used land-use planning policies and building regulations as instruments to restrict the development of informal settlements, and to justify the eviction and clearance of those in contravention (du Plessis 2005).

Watson (2009b) blames the persistence of older forms of planning (such as master planning) and their belief that "… in the planned city… the poor should at best be hidden or at worst swept away" (Tibaijuka 2006, p. 5, cited in Watson 2009b). In such cities, urban governments are in effect driving the creation and proliferation of informal settlements, as the urban poor often have no other choice but to evade disapproving officials and their anti-poor policies. As noted by McGranahan *et al.* (2008, p. 43), "these governments have not provided a standard for low-income neighbourhoods to aspire to, but rather to beat them with".

In addition to non-service provision, urban governments frequently deploy formalisation policies to, for example, rid urban areas of informal vendors (eg Brown *et al.* 2010), as demonstrated by recent 'clean-up' programmes in Malawi's capital city, Lilongwe (Box 4). Such programmes are consistent with the way modernist planning has historically treated informality as an 'unplannable' state of exception to the planned order of regulated urban development (Roy 2005). They ignore the fact that the formal plans and regulations rarely respond to the needs and concerns of the cities' poorest residents, and that informality often reflects inappropriate plans and regulations, as well as poverty. Though less than in colonial eras, elite prejudice still ascribes the insalubrious and unhygienic correlates of

BOX 4: 'CLEAN-UP' PROGRAMMES IN LILONGWE, MALAWI

Whereas Malawi's first multi-party president, Bakili Muluzi, supported the urban informal economy, his successor, President Bingu wa Mutharika, supported its removal. In 2006, Mutharika's government imposed a 'clean-up' programme in urban areas, moving vendors from the street into formal markets in an effort to restore order and reduce criminality. These efforts have strongly disadvantaged the livelihoods of the urban poor by reducing profitability, particularly in the absence of sufficient legal market spaces.

Despite these consequences, clean-up efforts continue under the current president, Joyce Banda. Two months after she took office in February 2012, street vendors and police clashed in the 'Old Town' district of Lilongwe – the country's largest and capital city. Heavily armed anti-riot police reportedly fired teargas and rubber bullets to disperse vendors before attempting to dismantle their market stalls. Police have also commonly used beatings to clear vendors from bus terminals and other areas. According to the Lilongwe City Council spokesperson, such efforts "promote cleanliness and reduce crime".

This case provides an example of a government assigning its 'handling' of street vendors to police departments responsible for law and order in the absence of any constructive policy or meaningful engagement. Ultimately, such tactics only worsen poverty and social exclusion in the urban informal sector, and result in worse relations between officialdom and those working in the informal economy.

Sources: Nyasa Times (2012); Potts (2008)

informality to inappropriate attitudes and behaviours of those living and working in the informal sector.

Even the more positive planning responses have typically involved extending formalisation over the informal city by legalising street vendors through permit systems, titling of informal land and regularising of informal land tenure (eg de Soto 2000), and so on (Porter *et al.* 2011). While these responses are more progressive than the 'clean-up' programmes described above, they still reinforce the dichotomy that makes formalisation the only policy option "while ignoring fundamental structures of power" (Porter *et al.* 2011, p. 118). In some cases, formalisation is an instrument through which relations of power and control are wielded in favour of dominant interests, rather than as an instrument to protect the rights of the urban poor to access basic shelter and to earn a decent living (ibid).

Policies designed to exclude the informal economy and informal settlements from city centres result in their becoming privileged spaces for a select few. In effect, the urban poor and their informal activities are being displaced into peripheral areas, as observed in Venezuela (Lacabana and Cariola 2003) and Nigeria (Jaiyebo 2003) to cite just two among many examples. As the process of displacement and dispossession continues, the urban poor are becoming increasingly excluded spatially (eg their settlements are often located in the most hazard prone areas because they cannot afford safe and secure land), legally (eg their houses often contravene land-use and building regulations because they cannot afford the cost of complying) and economically (eg displacing workers from their source of livelihoods) (Tacoli *et al.* 2008).

Organisations formed by federations of the urban poor (see Satterthwaite and Mitlin 2014) and alliances of informal workers (see Lindell 2010) have in some cases successfully partnered with urban governments to renegotiate regulations (particularly those governing access to basic infrastructure and services and urban space), but these remain exceptions to the rule. What is clear is that low-income informal dwellers and workers are widely and systematically excluded not just by urban land and labour markets, but by officials who disapprove of their settlements and livelihoods. Consequently, the ability of the urban poor to access quality housing and decent employment has become increasingly difficult, while environmental conditions in many locations have continued to decline, particularly at the household and neighbourhood levels.

What does all of this imply about informality and the green and climate resilient economy? Informality is neither inherently beneficial nor inherently damaging to the environment, but it clearly poses somewhat different challenges to greening the economy, particularly when it involves very low-income groups. It would be inappropriate to rely heavily on formal regulations when trying to green the informal economy: such approaches are in danger of being exclusionary, failing to achieve the desired environmental benefits, or both. Somewhat similar considerations apply to climate resilience.

Approaches that support better relations between the state and informal workers and households, along with more inclusive forms of governance, are important. This may seem to go directly against the sort of approaches that have succeeded in the formal sector. However, even in the formal sector, and in relation to atmospheric environmental policy which has conventionally relied especially heavily on a centralised regulatory approach, new governance approaches emphasise non-regulation, including more stakeholder engagement and polycentric governance systems (Murray 2013). The growing importance of the informal economy, particularly in conditions of poverty, adds to the challenges of developing new approaches to environmental protection and improvement, particularly if this is to support the transition to a more inclusive as well as greener and climate resilient economy.

To inform such approaches, there are additional informational needs concerning the environmental conditions and climate resilience of the informal economy. One of the barriers to collecting information from informal producers and workers, and particularly those who are clearly working outside the law, is the fear that information will be used against them. Environmental information can be especially sensitive, whether it is about the working environment, about the pollution of public environments, or about the environmental risks posed to customers (eg consumers of informal food vendors). Information about the more positive environmental roles of informal enterprises is less sensitive, but is rarely available. In order to assess the potential role of the informal economy in a future resilient and green economy, however, such information is critical.

4

Governance perspectives on the urban informal economy

As highlighted in Section 3.4, the role of the state in reinforcing the exclusion of the urban poor, spatially, legally and economically, can present a significant barrier to achieving urban economies that are more inclusive as well as more green and climate resilient. This section focuses on governance approaches developed to help to overcome these exclusionary tendencies.

There is a significant body of literature on the governance of economic and political linkages between the informal and formal economies (for a comprehensive review see Meagher 2013). Much of the literature emphasises the role of strong democratic and developmental states in channelling benefits across the informal-formal divide (Evans 1996; see also Cheng and Gereffi 1994; Deyo *et al.* 2001). A key observation from this literature is the role of power and institutions in determining how these benefits are distributed, particularly where synergistic state-society relations are involved (Meagher 2013).

Another body of literature views informal-formal linkages not as a channel for distributing benefits, but as mechanisms for contesting existing distributional arrangements. Meagher (2013) identifies three approaches in this literature, two of which are of interest here: critical urban planning (Miraftab 2009; Watson 2009a) and collective organisation (Cross 1998; Gallin 2002; Lindell 2010; Lund and Skinner 2004). The third approach includes multi-stakeholder networks, which are excluded from this discussion as at least in some instances they have been found to deepen, rather than reduce, existing processes of inequality and exclusion (Meagher 2013). In contrast, the critical urban planning and collective organisation approaches are included because they respond directly to the needs and priorities of the poorest and most vulnerable informal workers in urban areas. They are also grounded in Foucault's notion of governmentality (the art of governing subjects through a wide range of institutions and procedures), which is helpful in understanding how grassroots and civil society organisations can work to empower marginalised informal actors.

In examining these approaches, this paper proposes a fifth 'inclusionist' school to add to those summarised in Table 3 above. This school incorporates the views and focuses, causal theories and policy responses of the pro-poor urban planning and collective organisation approaches (Table 6). While there are some tensions between these two approaches, we believe they are similar enough, or at least complementary enough, to justify combining into one. Both approaches emphasise the role of organised citizenship and grassroots

Table 6: The emergence of an inclusionist school of thought on the informal economy

SCHOOL OF THOUGHT	GENERAL VIEW AND FOCUS	CAUSAL ROOTS OF INFORMAL ECONOMY	POLICY RESPONSE	MAJOR PROPONENTS
Inclusionist	The informal economy is a result of anti-poor policies and regulations and systems of governance that exclude the poorest informal producers and traders from accessing formal employment, basic urban services and space in the city. Focused on the poorest and most marginalised informal producers and traders in urban areas.	Anti-poor policies and regulations, and increasingly neoliberal systems of urban governance.	Collective mobilisation among informal producers and traders as a counter-hegemonic practice of resistance and inclusion. Holding local governments accountable to urban poor workers and dwellers in the process.	Miraftab (2009); Watson (2009b); see also Mitlin (2008)

collective action in reshaping how, and to whom, benefits are distributed. They focus on actions that take place outside, or in partnership with, the state. They do not advocate formalisation, but rather the negotiation of more forms of inclusion advantageous to the public in general and the poorest groups in particular. This is intended to lead to greater acceptance by and support from officialdom, but not necessarily to formalisation per se. This school differs from the other schools summarised earlier in explicitly supporting bottom-up processes designed to reform policies and regulations so that they become better suited to the needs of informal workers and their small-scale enterprises. In doing so, it focuses attention on issues of power in contesting dominant relations and anti-poor systems of governance that work to exclude and dispossess the working poor specifically in urban settings.

The pro-poor urban planning and collective organisation approaches are outlined below. The following section concludes by drawing out the implications of this review for achieving greener and more resilient economies that are more inclusive of the working poor in urban areas.

4.1 Pro-poor urban planning

The central premise of much of the pro-poor or 'radical' urban planning literature is that in the current neoliberal policy environment, governance transformations (particularly in terms of vesting weak or illegitimate informal institutions with greater power) depend on contestation or negotiation rather than state-society synergy (Miraftab 2009; Watson 2009b). More specifically, informal-formal linkages are seen as 'zones of contestation' where 'conflicting rationalities' between increasingly techno-managerial and marketised systems of governance (particularly in terms of government administration, service provision and planning) are confronted by increasingly marginalised populations engaged in survivalist activities (Watson 2009b, p. 2259).

Take, for example, street vendors in Mexico City, who have organised into alliances to resist new forms of exclusion associated with neoliberal strategies involving the privatisation of public space (Crossa 2009). Or communities in Bangalore that have organised to resist speculative urbanism and dispossession based on a new "culture of neoliberal speculation" (Goldman 2011, p. 564; see also Watson 2013). Watson (2009b) highlights how these struggles have unpredictable consequences, which can include negotiation, compromise, institutional innovation or the imposition of new costs on the urban poor (Meagher 2013). For Watson, the question for planning is how to

"locate itself relative to conflicting rationalities – on the one hand, organisations, institutions and individuals shaped by the rationality of governing (and, in market economies, modernisation, marketisation and liberalisation), within a global context shaped by historical inequalities and power relations (such as colonialism and imperialism) and, on the other hand, organisations, institutions and individuals shaped by (the rationality of) the need and

desire to survive and thrive (broadly the 'poors' and the 'informals')" (Watson 2009b, p. 2269).

The literature generally suggests that where grassroots organisations are weak or lacking, or where they have been co-opted by more powerful interests, neoliberal governance usually works to further exclude the working poor, who remain largely absent from formal decision-making processes and planning procedures (Devas 2001; Watson 2009b). Consequently, their ability to influence the policies and investments that ultimately determine the distribution of costs and benefits is marginal. This is particularly the case where strong and accountable local governments are lacking, as in many low- and middle-income countries (Satterthwaite *et al.* 2013).

Drawing on Holston's (2008) notion of insurgent citizenship, Miraftab (2009) argues that challenging the neoliberal rationality of governing depends on radical planning (see also Sandercock 1998) as a form of collective mobilisation in claiming rights to the city and to urban livelihoods. As such, planning is situated outside the state as a counter-hegemonic practice of resistance and inclusion. Miraftab does, however, recognise the importance of the state in stressing the need for planners to question "the assumption that every plan and policy must insist on modernization" (2009, p. 44) and to question the role of neoliberal governance in reinforcing dominance in relations.

4.2 Collective organisation

The central premise of the collective organisation literature is that governance transformations happen when informal alliances of the working poor create political spaces where labour and citizenship rights can be negotiated with local government (Brown *et al.* 2010; Lindell 2010; Lund and Skinner 2004). Lindell (2010) argues that our understanding of informality has been hampered by the dominant neoliberal school of thought, which fails to acknowledge the voices and political agency of informal workers. As reviewed above, much research over the last two decades has been dedicated to understanding the key features of the informal economy and its potential for economic growth and development, but without paying attention to its political dimensions. The neoliberal celebration of informal workers as 'plucky entrepreneurs' (as presented by de Soto 1989) has also tended to downplay their political capital. But this could also be said for structuralist ideas about the victimisation of informal workers, which provide little space for autonomy or resistance (Lindell 2010).

These political limitations have motivated the literature on collective organisation to explore and examine how the working poor employ their social capital to articulate rights claims and influence power relations at the interface between informal and formal institutions of urban governance. One of the most prominent themes in this literature is power and resistance related to the adverse effects of formal planning policies on informal businesses and traders, and grassroots responses to these. For example, Brown *et al.* (2010) show how street traders in African cities have continuously adapted the structures of their alliances in attempting to make their voices heard in urban management processes.

Benson *et al.* (2014a) draw on a number of other cases to show how policy approaches that have worked with informal alliances have yielded longer-term social and environmental benefits than formalisation policies led by the state, as demonstrated in the case of greening e-waste. But, as cautioned by Meagher (2013, p. 1), "Innovative processes of co-production and political inclusion, while able to enhance informal political voice, can also turn formal-informal linkages into techniques of governance and subordination".

While what we are defining as the inclusionist school is not overtly environmental in orientation, it contains insights directly relevant to the goal of greening the economy in an inclusive manner. The implicit suggestion from the collective organisation side is that in order to green the urban economy inclusively it is important that to give more power to organisations of the urban poor for prioritising and responding to environmental challenges and thereby building resilience. This applies not only to local environmental risks, such as workplace hazards and water and sanitation problems in and around the home, but even to issues such as adaptation to and mitigation of climate change, where the role of local communities in building resilience is often recognised in principle but rarely in practice (Dodman and Mitlin 2013, Haque *et al.* 2014). The implicit suggestion from the pro-poor planning side is that planning needs to support such collective organisation, and also pursue other means of rendering the zones of contestation between the informal and formal sectors more favourable to those less well-represented in the formal arenas. In contrast to the legalist school, the inclusionist school would resist any attempts to place stronger property rights at the centre of a reform agenda; in contrast to the voluntarist school, it would resist the notion that formalisation is inherently beneficial to either disadvantaged groups or the environment; and in contrast to the structuralist school, its collective organisation side would be sanguine about the potential for resisting the economic dominance of large formal enterprises, at least within these contested terrains.

5

Conclusions: The urban informal economy and achieving greener, more resilient and inclusive economies

The collapse in demand brought on by global financial crisis brought renewed attention to Keynesian policies. Large-scale green investment gained favour in some quarters as a potential means of putting underutilised factors of production to work, while counterbalancing the public debt by accumulating green capital. The informal economy does not provide a ready basis for this sort of investment-led neo-Keynesianism. Nevertheless, more environmentally minded and equitable engagement with the informal economy is critical if low-income countries are to become more inclusive and greener. This applies in times of economic decline, but equally when economies are growing. It also applies to the emerging priorities of climate resilience. Whether or not this agenda is adequately captured by the term 'green economy' is open to debate, but it is undoubtedly an important agenda.

In this working paper, we have focused particularly on urban areas in low-income countries. The growth of informal urban economies is at least indirectly related to urban populations growing faster than the formal economy, and in effect faster than cities have planned for – or want to plan for. This provides a parallel between the emergence of the informal urban economy and the emergence of informal urban settlements: both support populations whose urban status is somewhat tenuous, and are vulnerable to policies of exclusion, despite being tightly tied to the formal city and the formal economy.

Urban informality, both in the informal economy and in informal settlements, is often associated with low pay and high exposure to environmental hazards. Informality is rarely the primary cause of these poor working and living conditions, which typically reflect broader issues of poverty and inequality. Informality can in principle result when sound regulations are poorly enforced, but is more likely to result from a combination of inappropriate regulations and a lack of enforcement

capacity. It is particularly likely to arise when the rules and regulations are designed for or adopted from a higher-income economy, despite a large share of the population still living in conditions of poverty. Informality can itself foster a growing disjuncture between the rules and procedures of the formal economy and the realities of work and life for large segments of the population. If regulations are not being enforced and procedures not followed in part of the economy, the negotiations needed to adapt these regulations and procedures to that part of the economy do not take place. As a result regulations and procedures are likely to become increasingly inappropriate and unrealistic – and exclusionary if enforced mechanistically.

The remainder of this concluding chapter is divided into three sections. The first focuses on some features of the informal economy and relations between formality and informality that are relevant to the aspirations of a transition to a more inclusive, climate resilient and green economy. The second section identifies areas where a better understanding is needed to help inform attempts at such a transition. The third identifies some action-oriented priorities for this transition.

5.1 Relevant generalisations about urban informality

The urban informal economy is growing and how it evolves will be critical to the possibilities of a transition to a more inclusive, resilient and green economy – Whether or not it is easy to transform the informal economy so that it is more green, climate resilient and inclusive, it is necessary. The urban informal economy is already too big to ignore, particularly in terms of livelihoods it provides, but also in terms of the environmental pressures it brings. The failure to take account of the informal economy in much of the literature on the green economy represents a serious omission.

The urban informal economy is highly varied, in terms of its contributions to inclusion, resilience and environmental quality – There are informal enterprises that owe their existence to the fact that they can recycle wastes more efficiently than any formal enterprise, and others that owe their existence to the fact that no formal enterprise would be allowed to maintain such environmentally hazardous working conditions or such high levels of pollution. Similarly, in terms of economic inclusion, there are cases where informality is allowing enterprises to get around having to offer higher pay or benefits for formal jobs, and others where in the absence of the informal jobs there would be none at all (unfortunately it can be difficult to distinguish these two situations).

Urban informality itself has a complex and contradictory relationship with inclusion – The urban informal economy can be presented as exclusionary since the enterprises and activities of the informal economy are not formally accepted in their cities, and in effect the people who work and operate in it are not fully accepted, and often suffer harassment and insecurity as a result. Alternatively, the informal economy can be presented as a means of inclusion, since the informal economy has been allowed to grow and flourish and provide livelihoods in many cities, despite not conforming to official norms and regulations. Overall, it is probably most accurate to say that it is in the informal economy and its relations to the formal economy and to formal regulatory regimes that many of the negotiations over urban inclusion and exclusion are played out.

Urban informality and issues of inclusion/exclusion are both closely entwined with gender relations – Even without considering their unpaid domestic work supporting their own households and families, women make up a substantial share of people working in the informal economy (see Table 2 above, or for somewhat different estimates Charmes 2012, p. 116). Women are more prevalent in the low and unpaid segments of the informal economy, among unpaid home workers, and among paid workers in home-based enterprises. This pattern may reflect women finding it easier to work informally in or near the home, so as to combine such work with domestic work and to please (particularly male) household members. It may also reflect discrimination in higher-paid and formal labour markets. To some degree the former probably serves to obscure or even in some cases to justify the latter.

The improvements needed in the informal economy tend not to be easily amenable to formal controls and regulations – Those operating in the informal economy are almost by definition not abiding by the sort of official regulations and procedures often, somewhat misleadingly, presented as the centrepiece of environmental policy. If it is difficult and costly to use formal assessments of environmental hazards, impacts or carbon budgets to regulate small formal enterprises, it is doubly difficult in the informal economy. Other approaches to environmental improvement and climate resilience are possible, however, some of which may lead to increasing formal acceptance of at least certain segments of the informal economy.

The challenge is to improve upon the existing informal economy, not to formalise it or to protect it from formalisation – Many government officials see urban informality as a challenge to their authority and a source of urban decline, and find it hard to support improvements to the informal economy that do not aspire to formalisation. Many proponents of

informal enterprise see formalisation as a threat. Efforts to develop more inclusive, green and resilient economies will need to transcend such dogmatic positions, and focus instead on how to improve the formal regulatory systems, the operations of the informal economy, and their interrelations.

Negotiating improvements to the informal economy will be a struggle – Examples where alliances of informal workers have been able to negotiate with local governments for welfare benefits and labour protection highlight important opportunities for making informal economies greener and more inclusive, and in at least some ways more formal. Examples from women's groups are particularly well documented (see WIEGO – http://wiego.org – as well as Kabeer *et al.* 2013a and 2013b). These examples also, however, highlight a significant mismatch between the vision of the green economy as an idealised 'win-win' solution and the urban politics of exclusion and dispossession. Without recognising the social and economic barriers that marginalised informal workers face, and the struggles required to overcome them, it will be difficult to understand how to support a transition to a more inclusive, climate resilient and green economy, and the role of the informal economy in this.

5.2 Priority areas for understanding the informal economy

This section identifies a number of priority areas for developing this understanding with the aim of achieving economies that are greener, more resilient and more inclusive. These priorities are outlined in relation to research and knowledge, along with governance and policy. They are intended to spark further discussion and debate, and possibly to inform future research in this area.

Informality in context of urban exclusion and dispossession – The tendency to focus on measuring the size of the informal economy and on understanding its key features should not be allowed to detract attention from underlying politics that can work to exclude informal workers from broader social and economic benefits, and from the full benefits of urban living and working in particular. This relates to a wide range of issues including poverty, powerlessness, discrimination, gender inequality and vulnerability, as well as unequal access to social protection, security coverage, basic services, decision-making processes and planning procedures – all of which are still too prevalent in urban areas. Understanding these issues and how informal workers and their organisations and alliances seek to overcome them is vital for informing pro-poor policies that are capable of addressing the inclusion of low-income women and men working in the urban informal economy.

The sometimes perverse (though not necessarily unintended) impacts of regulations on the informal economy – Regulations ostensibly designed to reduce inequalities or reduce environmental burdens can have perverse effects, but how pervasive such effects are and how to identify when they are likely to occur remain poorly understood. Minimum wage regulations in South Africa were found to increase incomes for domestic workers (Dinkelman *et al.* 2014), although some predicted no or perverse outcomes because of their informality. On the other hand housing regulations in urban Brazil ostensibly intended to improve housing standards became a means of keeping migrants out of more affluent settlements (Feller and Henderson 1999).

The environmental priorities for greening the urban informal economy – Generally, urban informal enterprises are relatively small and compared to larger and more regulated enterprises they are better known for creating environmental hazards in and around the workplace, less for contributing to large-scale risks, such as global climate change. The environmental burdens imposed by the informal economy and how they compare with the impacts of the formal economy, per unit of value added and per person employed, remain very poorly understood, however. This makes it difficult to assess what the priorities are for greening the urban informal economy, let alone how to do this inclusively, while also contributing to climate resilience.

The levers for addressing environmental priorities of the urban informal economy – If comparatively little is known about the environmental burdens of the urban informal economy, even less is known about how best to reduce such burdens, or how to increase resilience in the informal economy. Regulations and formal procedures have a role, but for some informal activities demand-led improvements are more likely to be appropriate, while for others negotiations with better organised workers and operators may be the best approach. More generally, ways need to be found to provide incentives for environmental improvement without allowing this to become a means of disadvantaging small-scale enterprises and those operated by the urban poor.

The implications of 'urban resilience' discourse and practice for the informal sector – An approach to urban resilience that genuinely focuses on the needs and priorities of low-income and vulnerable groups presents opportunities for working synergistically with the informal economy. Specifically, the recognition in some circles that a resilience agenda needs to engage significantly with issues of urban livelihoods, and with the health of urban residents, could be interpreted as

providing a basis for engaging with these elements of informality. In contrast, a more techno-centric approach to resilience risks increasing the vulnerability of residents who are dependent on this for their livelihoods.

The role of informality in contributing to urban resilience – As described above, the informal sector exhibits several of the key characteristics of urban resilience, particularly around flexibility and resourcefulness. The extent to which the informal sector helps urban societies resist and respond to shocks and stresses, including those that will be caused by climate change, is not known – but further investigation could help to identify its significance.

Changing gender relations and the evolution of the informal economy – The importance of gender and gender relations in the informal economy is immediately evident in the statistics, and WIEGO has helped to draw attention to and facilitate the organising of women working in the informal economy. On the other hand, both the statistics and organisations like WIEGO systematically neglect domestic labour, which is an obstacle to both understanding and improving the informal economy. More generally, while the importance of gender relations and gender discrimination in the informal economy is widely acknowledged, the implications for action remain poorly articulated, particularly when it comes to transitions toward more green or climate resilient economies. For example, are there strategies for increasing the capacity and role of women's organisations in the informal economy that will yield environmental improvements as well as reversing gender discrimination?

5.3 Emerging action-oriented priorities

The informal economy is so diverse, and its relations with urban social and economic development so varied, that generalising about the implications for achieving more inclusive, resilient and green urban economies risks being either wrong or banal. This risk is amplified by the enormous range of governance capacities across different urban centres, internationally and often intra-nationally. There are informal enterprises that deserve support, others that deserve to be shut down. There are regulations that deserve to be enforced, others that should not exist. There are governments and officials that have an interest in getting the best out of the informal economy, others more concerned with suppressing it or getting money from it, and others understandably hesitant to engage with the informal sector since this could be seen as condoning what they are meant to be controlling. There are organisations of informal workers or enterprise operators willing to engage around improvements to benefit the public at large, others that are not. Among all this variety, there is enormous scope for improvement, but few simple answers.

A few core action-oriented priority areas that arise from this review are summarised below. Most are written with a view toward identifying what governments can do, although one of the key messages is that a successful transition to a more inclusive, resilient and green economy will require the active, organised and strategic involvement of those operating in the urban informal economy. The same applies to the formal economy, but this is already recognised, and there are already accepted mechanisms for engaging with formal enterprises and formal sector workers. Engaging effectively with those operating or working in the informal economy remains more of a challenge.

Strengthen the contribution of formal regulations by recognising their limitations – Well-designed and enforced regulations can be used to support economic opportunities for the poorest segments of society, as well as shifting the economy toward more resilient and environmentally desirable pathways. However, desired behaviours cannot simply be regulated into being, and attempts to do so can be counterproductive and exclusionary. Indeed, economic informality often arises in response to unrealistic, inappropriate or unenforceable regulations. Small enterprises run by people with very limited access to capital are prone to falling foul of regulatory systems, particularly when the regulatory systems are designed with larger and better resourced enterprises in mind, are intentionally exclusionary, or more generally are developed in response to the pressures of more powerful groups. In order to adapt regulatory systems to support the informal economy in the transition to a more inclusive, climate resilient and green economy, it will often be necessary to:

- Prune the regulatory systems that are meant to apply to informal enterprises, reducing duplication, facilitating compliance, and recognising the rights and contributions as well as the obligations and burdens of small, capital-poor enterprises
- Assess regulations in terms of their actual effects rather than assuming compliance, and align the regulatory system with the local capacity to implement the regulations equitably
- Identify and prioritise areas where regulations can help to create a more inclusive, resilient and green economy, benefiting all segments of society and not just the more powerful, and
- Adapt and develop new regulations in collaboration with those affected, including disadvantaged workers, the self-employed and their organisations.

Collaborate with informal producers, workers and their organisations to coproduce inclusion, climate resilience and green outcomes – Since

many of the activities undertaken in the informal economy are often ill-suited to formal regulatory systems, it is important for governments wishing to get the best out of the informal economy to find alternative means of engagement. (This applies particularly to the informal sector, and less to informal employment by formal enterprises.) By adopting a more collaborative approach to parts of the informal sector, it should be possible for public authorities to coproduce more resilient and green outcomes. Ideally, such coproduction would shift the politics of cities toward more inclusive variants, and create the basis for the sort of city-wide collective action needed to achieve inclusive, resilient and green urban economies.

In practice, much will depend on the pre-existing state of urban governance and politics. Organisations of informal operators and workers, and women's organisations in particular (Kabeer *et al.* 2013b), could play an important role in coproducing inclusive, resilient and green outcomes. In particular, emerging practices around the development of city resilience strategies and resilience interventions need to treat informality more seriously given the potentially large investments that will be generated in response to these in coming years (such as the recently launched Urban Climate Change Resilience Trust Fund, a multi-donor trust fund administered by the Asian Development Bank). As cautioned by Meagher (2013, p. 1), however, "Understanding the specific distributional effects and power relations within these networks is crucial to understanding their ultimate impact on informal economy actors". It is particularly important to recognise their gender dimensions and to ensure that formal collaboration does not serve to further marginalise women.

Encourage those segments of the informal sector that already promote inclusion or provide urban resilience and green public benefits, and discourage those that clearly do not – The different segments of the urban informal economy can and should be treated differently, not just through regulations, but also through other public and civil society processes. If there are informal economy activities, such as badly run battery recycling (Box 3), that are causing serious damage to local workers and citizens, then there need to be means for holding those engaged in the activities to account. If there are other informal economy activities, such as well-run water vending, providing an invaluable service, then there need to be means of preventing them from being put out of business. Informal economy activities that contribute to climate resilience and environmental improvement also deserve particular support. Urban governance is complex and polycentric, even in the absence of a large informal economy, and the presence of an informal economy adds to the complexity. In almost all cities, however, there should be ways of shifting the informal economy to contribute more to inclusion, resilience and the green economy.

Consider the impacts on the informal economy when pursuing the transition to a green and climate resilient formal economy – The contribution of the formal economy to green and climate resilience goals also needs to be pursued, with relations between formal and informal enterprises and workers scrutinized to ensure that both equity and environmental goals are achieved. There is a danger that when controls are imposed on formal enterprises they will outsource activities that are not green or resilient, or that impose severe health hazards on low paid workers in the informal economy. Such impacts need to be taken into account when designing policies intended to green the formal economy or to increase climate resilience.

Upgrade informal settlements to be more resilient, green and inclusive – While the challenges of informal settlements are beyond the scope of this working paper, it needs to be recognised that some of the challenges posed by the informal economy overlap with those of informal settlements, and cannot be addressed independently. Many informal enterprises are located in informal settlements, and informal enterprises can reinforce the informality of a settlement, particularly when officially mixed use is prohibited. Many of those working in the urban informal economy outside of informal settlements, including the informal employees in formal enterprises, commute from informal settlements. Many of the challenges faced by governments working with informal enterprises are also encountered working with the residents of informal settlements, and many of the more successful strategies of collaboration and coproduction are also similar. At the same time, the physical conditions of informal settlements are a major contributor to the vulnerability of their residents to climate change impacts (Hardoy and Pandiella 2009), and hence require particular support to build resilience to climate related hazards.

Apply the principles of inclusive urban planning to the urban informal economy – "So long as informal workers are not recognized as economic actors and not incorporated into economic and urban planning, they remain outside the protective arm but within the punitive arm of government" (Dimova and Nordman 2014, paraphrasing Chen 2014). On the other hand, some planning regimes are sufficiently biased that recognition also brings punishment. Thus, from a planning perspective, the informal economy needs to be both recognised and incorporated in a manner that gives full recognition to the rights of the people who depend on this economy for their livelihoods. The application of more pro-poor urban planning, such as that discussed in Section 4.1, could be an important first step toward more inclusive, resilient and green urban economies.

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Acronyms

GDP	Gross Domestic Product
GTZ	German Technical Cooperation
GVCs	Global Value Chains
ILO	International Labour Office/Organization
IPCC	Intergovernmental Panel on Climate Change
OECD	Organisation for Economic Co-operation and Development
SAPs	Structural Adjustment Programmes
UN	United Nations
UNDESA	United Nations Department for Economic and Social Affairs
UNEP	United Nations Environment Programme
UNFPA	United Nations Population Fund
UNIDO	United Nations Industrial Development Organization
WIEGO	Women in Informal Employment Globalizing and Organizing

The green economy and climate resilience agendas are widely promoted as solutions to 21st century challenges facing sustainable development. As the world continues to urbanise, the role of cities in promoting these agendas is increasingly recognised. Yet, the informal economy – which accommodates the majority of non-agricultural employment in low- and middle-income countries – is seldom considered in the transition to a greener, more resilient economy. This paper aims to provoke discussions around two main questions: What is the role of the urban informal economy in this transition? And, how can urban informal enterprises and their workers contribute to achieving economies that are not only greener and more resilient, but also more inclusive?

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