

# Decent, green jobs for marginalised economic actors: What is the future of work for these players?

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Priya Lukka (Economic development consultant for CAFOD)

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## Summary

In this paper we explore examples of decent, green jobs that are accessible to marginalised economic actors and which have the potential to be transformational for the community. This would be through providing more than ‘just a job’ for the individual, but also providing broader social, economic or environmental justice outcomes. In annex 1 we provide an analytical framework which defines each of these issues. Because we live in a world with entrenched unemployment and underemployment where the need to stay below a 1.5 C temperature rise is so urgently facing us all, we argue that business as usual is no longer an option. Instead a do no harm approach must be followed at a minimum, but that transformational, decent, green jobs are an aspirational goal for jobs strategies.

Our exploration starts with a brief review of recent patterns of economic development and then considers current trends in the world of work. This sets the scene for why decent and green jobs are essential for consideration and prioritisation when discussing and planning for the future of work.

We then explore some sectors which have potential for creating these decent, green jobs for marginalised economic actors; these sectors are those which are currently or could be accessible to marginalised actors. With the right support and under the right conditions there is also great potential for these sectors to create transformational opportunities.

Following this we explore six case studies where efforts have been made to go beyond job creation to really think about how decent, green jobs for marginalised economic actors could be created – we also consider some of the transformational aspects of these specific examples. We look particularly at Africa and South Asia, two regions with disproportionately high numbers of people living on low-income and surviving at a subsistence level.

Our paper brings together issues around decent work, sustainability and marginalised groups and, as such, is bringing together thinking using diverse existing literature, research and practice. It follows ILO economist Peter Poschen’s seminal publication ‘Decent and Green Jobs and the Sustainable Economy’<sup>1</sup> in 2016, which firmly established the agenda and led to CAFOD and Christian Aid’s own work on a framework for decent, green jobs for all<sup>2</sup>. The evidence for this paper is drawn from a mix of limited available academic, institutional and organisational literature (using snow-ball sampling) and first-hand reflections gathered through interviews with a number of experts (see annex 2) either working in the sectors or with some of the projects covered in this paper. The interviewees were important in guiding an understanding of some of the key issues around strategies for job creation which deserve more attention. It is important to note this discussion paper does not attempt to present a complete list of evidence, sectors or case studies in the way that a research review might, but through the lens of our analytical framework we have identified critical issues for designing job strategies which could lead to better economic, social, and environmental outcomes and avoid some of the flaws of earlier, environmentally-negative or ‘brown’ development paths.

In the final section we consider the overarching lessons that can be drawn from this review and their implications for policy and programmes. As our methodology has followed a largely iterative information-gathering process, these reflections are a starting place for further discussion, and we hope that the summary of key points of learning that can be drawn from this work will stimulate this.

### **What are decent, green jobs and when are these transformational?<sup>3</sup>**

Decent and green work means that people have access to full and productive employment, rights at work, social protection, the opportunity for social dialogue in the workplace and that the environment is preserved and/or restored

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<sup>1</sup> Poschen (2016), Decent Work, Green Jobs and the Sustainable Economy, Solutions for Climate Change and Sustainable Development, ILO

<sup>2</sup> CAFOD & Christian Aid 2017: “Towards Decent, Green Jobs for All”

<sup>3</sup> In defining ‘decent and green jobs’, the ILO have provided a robust and comprehensive definition. Our definition here and expanded in Annex 3 and our analytical framework (Annex 1) draws on their work. There are a number of indicators within this definition which are further explored in Annex 3 (ILO, n.d.; ILO, 2016).

through this work.<sup>4</sup> Decent and Green work is therefore about the reality of people’s experience of work, and the way that this work impacts on the environment. No sector is inherently green or decent, instead strategies towards greening and decent work are possible in a variety of sectors and are based on explicit choices made when designing jobs. Some sectors which are inherently carbon intensive and do not support a transition to a low-carbon, green economy will need to prioritise a Just Transition<sup>5</sup>. Annex 3 expands on this and looks at some indicators of what this means in practice. Trade-offs between decent and green are not necessary and, in this work, we show examples of where both have been achieved. Certain decent, green jobs are also **transformational** and have the ability to catalyse community-wide social, environmental and economic justice – responding to challenges in a systemic and integrated way.<sup>6</sup> When a jobs strategy is transformational, it enables changes in economic structures to promote employment-intensive growth patterns (in other words the scalability of the intervention, the number of jobs created and the wider economic benefits for a community or at a country-level are visible). Transformational jobs would also change power dynamics by catalysing changes in social structures and relations which lock people into disadvantage and constrain their agency and choice, by instead creating opportunities for greater voice and participation. Finally, transformational jobs would enable broader environmental benefits and regeneration.

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<sup>4</sup> Our definition draws on ILO work (ILO, n.d.) (ILO, n.d. - b) (ILO, 2016)

<sup>5</sup> (ITUC, 2017) – For more information see <https://www.ituc-csi.org/just-transition-where-are-we-now?lang=eg>

<sup>6</sup> ‘Transformational shifts’ is highlighted in Agenda 2030 with similar ideas unpacked in Pope Francis’ encyclical *Ladauto Si*. The UNRISD (2016) has done further work on what this means in policy and practice. Our definition draws on these ideas.

# Preface to ‘Decent, green jobs for marginalised economic actors: What is the future of work for these players?’

Something new and exciting is happening. For decades protecting the environment, preventing unmanageable climate or preserving biodiversity; and overcoming poverty, including the many on the margins of society and fostering more equal, cohesive societies have been considered competing, if not mutually exclusive goals. Up until recently, governmental, international and civil society organizations espousing one or the other cause rarely talked to each other.

The present background research report and the accompanying policy discussion paper<sup>7</sup> are testimony that this is about to change. The doughnut-diagram and metaphor introduced by Kate Raworth and Oxfam at the Rio+20 Conference put the environment and social inclusion onto one page. The present paper goes a significant step further: it argues that environmental and social goals and outcomes are not only intimately linked, but that major synergies are generated if they are addressed together. The world is not facing a double bind with the environmental and social challenges that lie ahead for the 21st century. On the contrary, there is a unique opportunity here to achieve sustainable development in all its dimensions. This is crucial because the world will neither have the time nor the finance to address the two challenges separately.

Sustainable development, like all development, happens through jobs. The paper points to the creation of green jobs as the pivotal element which will make the transformation of economies possible so they can function within planetary boundaries yet satisfy the rights of all human beings to decent and fulfilled lives.

The transformative role of green jobs can already be witnessed. In my work in Brazil I visited poor families who had just moved from a slum dwelling in a favela into affordable, social housing with solar water heating installed on the roof. The about 30,000 jobs created to manufacture and install these water heaters gave these families cheap hot water and a level of wellbeing and hygiene they had never known before.

Similarly, I met former ‘waste scavengers’, as the over 400,000 informal recycling workers are known in Brazil, who had formed a recycling cooperative. The cooperative enterprise offered an employment contract with social insurance, health care and stable incomes. One of the cooperative members was a young woman who switched from a job in a call centre to join the cooperative. She said it paid better, was more reliable and gave her dignity and community.

The discussion paper lists many other examples. Green jobs are being created and they are transforming economic realities and people’s lives. But we are nowhere near the scale and speed of transformation required if we are to fulfil the sustainable development goals.

The paper shows how we could achieve scale of transformation by focusing on the right priorities like energy access, housing and infrastructure, food and small-scale agriculture. Adopting the creation of green jobs in these sectors in populous regions like Africa and South Asia as a priority and development strategy would be a powerful driver of improvement. It would go beyond ‘leaving no one behind’ and give the currently poor, under-privileged and excluded a stake in a green and inclusive economy. It would turn them into agents of change who participate in the processes that shape policies and bring about the social and environmental outcomes through their jobs. This debate is urgent. The papers presented are an excellent place to start.

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Peter Poschen  
Professor of Socio-economic Sustainability  
University of Freiburg, Germany

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<sup>7</sup> “Jobs for transformation”, CAFOD 2019

## Introduction

Economic development and job creation are key components of poverty alleviation. Finding a job is a central priority for people living in poverty and meeting the demand for jobs is a priority for governments and donors attempting to achieve economic development. However, poverty coupled with the environmental catastrophe facing us globally means that we cannot afford to create jobs that initially lead to environmental cost, or that do not consider the need for these jobs to be accessible to the most marginalised groups of people living in developing countries (we describe such groups as marginalised economic actors in this report). This work stands at the intersection of various UN mandates, as also reflected in the Sustainable Development Goals (SDGs); namely,

- inclusive and sustainable development, and poverty alleviation;
- gender equality; and
- decent job creation.

Manufacturing is a critical component to high-volume job creation because it propels the rest of the economy through positive externalities. Manufacturing was considered the high road in development with it being seen as synonymous with development overall. Indeed, manufacturing has traditionally had a strong spill over effect, in driving research and development investment, creation of intellectual property, economy-wide productivity growth, and upstream and downstream jobs in other sectors. In the case of some industrialising countries, manufacturing sectors added huge value through taking countries to the point that they were competing at an international level via export-led trade. Countries like Japan, Taiwan, South Korea and now Vietnam and China have generated hundreds of millions of jobs in the past five decades through industrialisation. With manufacturing employment falling in many mature economies, the stronger manufacturing sectors are now found in emerging economies. Today, that pathway model has been updated with different patterns showing the growth of the services sector, which, in many diverse examples, has been shown to be just as important in magnitude of job creation as earlier manufacturing-led phases.

These earlier periods of poverty-alleviating growth have since also been critiqued for the unsustainability of the model used, particularly negative externalities in the form of environmental costs of production and the lack of shared social benefits.<sup>8</sup> However, they are still largely the strategy that is considered by policymakers to achieve economic development. Manufacturing is seen as producing an economy-wide potential transition from subsistence agriculture to rising incomes and living standards. As the discussions around pathways to economic development and job creation intensify, and particularly as there is much debate about applying a manufacturing-led approach especially for many developing countries in Africa and South Asia, we need to appraise options and the rationale for different policies. As regions, Africa and South Asia are the focus of our investigation into the need for decent and green job because both dominate head count measures for poverty:

- In **Africa**, the proportion of the population living in poverty is falling, but the absolute number of poor people is still on the rise. There are an estimated 330 million people who are poor based on 2012 data: an increase on the previous period due to population growth. Using the most recent at PovcalNet, it is 413.25 million. The UN estimates that by 2050, the population in Africa will be 2.4 billion<sup>9</sup>.
- **South Asia** has more poor people than any other region in the world. Using 2013 PovcalNet data which is the most robust that is available, the figure is 274.49 million. The UN estimates that by 2050, the population for Asia overall will be around 5 billion<sup>10</sup>.

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<sup>8</sup> See Lambrechts and Lau (2017) and Alemayehu et al (2017) for a full discussion and analysis around structural economic transformation

<sup>9</sup> United Nations Population Division, World Population Prospects 2017

<sup>10</sup> United Nations Population Division, World Population Prospects 2017

## ***Looking backwards: Are previous models based on manufacturing fit for purpose for job creation today?***

In this section we unpick some of the reasons why manufacturing has been emphasised so strongly in job strategies. Importantly, we are not arguing against the viability of the manufacturing sector for the future, but instead highlighting the need for a broader development pathway.

### **Millions of jobs are needed, and education is currently a barrier to labour market participation**

Work by Szirmai and Verspagen (2015)<sup>11</sup> has found that since 1990, manufacturing is becoming a somewhat more difficult route to growth than before. It finds that ever greater amounts of human capital are required to achieve the same positive marginal effects of expanding the manufacturing sector, and the catching-up bonus seems to have become smaller. The population growth anticipated in Africa, and continuing, but at a slowing pace in South Asia means that we are talking about the need for millions of jobs. A minimum level of human capital is needed before benefits from manufacturing export-led growth can be realised and with the advent of new technology potentially biased against unskilled workers, the accessibility of jobs being created is important.

### **Manufacturing is a difficult route to development**

Fagerberg and Verspagen (2002)<sup>12</sup> examine the impact of shares of manufacturing and services on economic growth in three periods (1966–1972, 1973–1983 and 1984–1995) for a sample of 76 countries. They find that manufacturing has much more positive effects before 1973 than after. The interpretation is that the period 1950–1973 (early industrialisation) offered special opportunities for catch up through the absorption of mass production techniques in manufacturing and this period of catch up is not likely to be reproducible given the unique set of initial conditions at play at this time. In today's world, production frontiers are vastly different and as such, we are also not looking at the same type of pathway as earlier periods. Any newcomer country today faces an uphill battle in manufacturing markets cornered by highly productive and competitive producers like China. Further, UNIDO (2018)<sup>13</sup> report that emissions have increased in manufacturing between 1994 and 2015 because of the increase in environmental pressure from higher living standards and consumption especially in emerging economies. Therefore, it is even more important to consider the environmental costs of manufacturing sectors in less developed countries.

### **Our environmental challenges are not compatible with a high-polluting manufacturing pathway**

The development pathways followed in East and South-East Asia have not had the sustainable development outcomes necessary in today's context. CAFOD and Christian Aid have found that,<sup>14</sup> historical pathways of economic (and even agricultural) transformation have had an impact on economic growth and contributed to overall levels of poverty decreasing. This has, however, come with costs, both social and environmental. Today, every country needs to do as much as it can to meet the obligations of the SDGs and Paris Commitment for tackling Climate Change and environmental sustainability – a requirement made even more urgent in the evidence from the latest IPCC report<sup>15</sup>. A high-polluting pathway can lead to particular risks in air and water pollution and exposures. The unviability of this model is clear with China, since 2017, making a much firmer commitment to tackle environmental protection alongside economic growth. For developing countries this experience offers a stark warning and an opportunity to think sustainably about how economic development should take place.

### **In many developing countries, other sectors have also been important**

The traditional view that subsistence-level producers and entrepreneurs will be better off if they can be integrated into the industrial sector is changing. In the case of China, Motalvo and Ravallion (2009)<sup>16</sup> find that it was the agricultural primary sector that drove poverty alleviation and that manufacturing did not have the same poverty alleviation potential because poverty was based in rural areas. While manufacturing has played

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<sup>11</sup> Szirmai and Verspagen (2015)

<sup>12</sup> UNIDO, 2018: Demand for Manufacturing: Driving Inclusive and Sustainable Industrial Development,

<sup>13</sup> [https://www.unido.org/sites/default/files/files/2017-11/IDR2018\\_FULL%20REPORT.pdf](https://www.unido.org/sites/default/files/files/2017-11/IDR2018_FULL%20REPORT.pdf)

<sup>14</sup> (CAFOD & Christian Aid, 2017b)

<sup>15</sup> <http://www.ipcc.ch/report/sr15/>

<sup>16</sup> Motalvo and Ravallion (2009)

an important role, agricultural transformation has also underpinned much broader economic transitioning and, more recently, the services sector which has been called the new frontier for developing countries.

### **The important role of the services sector**

The share of services in the GDP of low- and middle-income countries has been increasing, and was at 57% in 2015, up from 48% in 1997<sup>17</sup>. The services sector, which covers a wide range of activities, plays an important role in determining the direction of structural transformation in the global economy. Services constitute a major share of output, employment and investment, and play an important role in international trade, especially in developing countries. Services can provide intermediate inputs to all economic activities and they account for close to two-thirds of overall exports in a large sample of countries<sup>18</sup>.

Through a wide range of activities, the UN<sup>19</sup> highlights that services facilitate productive and export processes and enable participation in value chains. These channels can support gains in efficiency and effectiveness, which in turn reduce production and trade costs, contribute to productivity gains and increase productive and export capacity. The shifts in relative prices from these gains are an important force driving structural transformation in production, employment, investment, trade and consumption decisions. In some ways, services is the new manufacturing. This implies significant development opportunities, especially given the large productivity gaps between sectors in low-income countries<sup>20</sup>.

Increased trade in services could potentially boost the growth and development prospects of developing economies. Services exports of developing economies have risen rapidly over the past decade, as reflected by the increase in developing economies' share of global services exports from 23% in 2005 to 29% in 2016. By category, the main shares of global services exports of developing economies comprise construction, travel and transport services, in contrast with the trade profile of developed economies, which are more focused on higher value-added service (UNIDO, 2018)<sup>21</sup>. However, care services, particularly unpaid care are growing in recognition too. In Section 1, we explore the potential for decent and green jobs in some of these service sectors.

### ***Looking forwards: where will we see the jobs of tomorrow?***

At the start of this study, to give us a basis to evaluate options for creating decent and green jobs for marginalised economic actors we considered a number of trends which will impact and shape the nature of work in the future. These are fully described in annex 4, but include the following issues:

- **Entrenched (and growing) unemployment, underemployment and working poverty:** Globally 776 million people are working but poor and 1.4 billion people are vulnerably employed<sup>22</sup>. Further, regular wage employment is the exception rather than the norm and there is a declining share of labour value-added GDP. Taken together this suggests that job creation alone is insufficient to tackle the real, multi-dimensional, crisis faced by marginalised economic actors.
- **Huge demographic shifts:** We see a continuously growing and urbanising populations with most growth in Africa and South Asia, where there is a youth bulge in some countries and also an aging population in other settings. Job strategies will need to address the skills that young populations will need to become thriving economic actors.
- **Most people work informally:** with layers of subcontracting arrangements leading to opaqueness, informal work is increasing, not disappearing, in both low and high-income countries. Wider than the

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<sup>17</sup> Deloitte Insights (2018), The services powerhouse: Increasingly vital to world economic growth

<sup>18</sup> (Miroudot and Cadestin, 2017).

<sup>19</sup> World Economic Situation and Prospects 2018

<sup>20</sup> (Mashayekhi and Antunes, eds., 2017).

<sup>21</sup> <sup>21</sup> UNIDO, 2018: Demand for Manufacturing: Driving Inclusive and Sustainable Industrial Development,

<sup>22</sup> (ILO, 2017)

way that people work, informal economies are a permanent, and in many cases large feature of African and South Asian countries. The ILO, together with many informal worker groups note that formalisation of the informal sector, under the right conditions (outlined in ILO Recommendation 204) is central to better decent work outcomes. More exploration is needed of how policymakers and practitioners designing jobs strategies take up this challenge.

- **Multiple livelihoods:** Many individuals and families have, and will continue to have multiple strategies to earn income involving a combination of subsistence agriculture, seasonal waged work, and periodic other work. Jobs pathways need to consider this reality.
- **Women's labour market participation and unpaid work:** Globally, women face specific challenges in their job prospects and ability to access decent work opportunities. Gender inequality is structured into market forces by hardwired discriminatory practices and inequality<sup>23</sup> and is often compounded by the intersection of other 'identity categories'.<sup>24</sup> Jobs strategies of the future need to consider what women's engagement in work means for their unpaid care provided in the home. The lack of welfare services in many developing countries compounds women's lack of access to labour markets.. Social care infrastructure can play an important role in promoting inclusive growth and enhancing gender and class equality<sup>25</sup>.
- **Automation of tasks and disruptive innovation** is increasing. While the full implications of this are not known, this could displace low-skilled work in factories around the world with fewer formal jobs being available to people. Disruptive innovation<sup>26</sup> is also capable of radically changing ways of working within certain sectors. Jobs strategies need to think through ways to support and create an enabling environment for inclusive innovation – particularly innovation in green or circular economy sectors.
- **The need for distributed circular economy models:** Opportunities for the circular economy are growing with clear environmental benefits from such business model, and growing evidence of economic,<sup>27</sup> health, employment and environmental benefits<sup>28</sup> from such an approach (including for low and middle-income countries<sup>29</sup>). Companies around the world are also showing the benefits to their bottom-line by transitioning their business models to such an approach.

We looked at these trends in the context of jobs to help us to understand the issues that job creation strategies need to consider and, whilst many of them are relevant for all countries, globally, we have discussed the particular elements of these themes that are relevant for developing countries. Taken together, they infer fundamental changes in the future of work. This is the basis for our belief that a new approach is needed in jobs strategies which responds to these realities and is more focussed than ever on the need for decent, green and transformational outcomes.

### ***An alternative future: one which creates decent, green jobs for marginalised economic actors***

While recognising the desire from governments for high growth, a look back at the lessons learnt from the standard manufacturing pathways of the past suggests that such strategies are no longer a viable model given our sustainability challenges as a planet. In fact, given current realities and trends, most work opportunities that are accessible to poor women and men are unlikely to be brown economy 'factory jobs' as envisaged in a traditional economic transformation trajectory.

What these lessons highlight is that a more pragmatic approach is needed for jobs strategies of the future. A new economic development pathway is needed, one which combines economic, environmental and social objectives and works towards social justice. We challenge the notion that need for jobs is so huge that we are going to need brown and green jobs. Instead we argue that a different transformational pathway should be considered across South Asia and Africa. Within such an approach, a jobs strategy logically needs to be

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<sup>23</sup> (Kabeer, 2012)

<sup>24</sup> (Walby, et al., 2012)

<sup>25</sup> (Kim, 2015)

<sup>26</sup> This includes products, processes or functional ideas that are new to producers, sectors, countries or the world and fundamentally disrupt the status quo

<sup>27</sup> (World Economic Forum; Ellen MacArthur Foundation & McKinsey & Company, 2014)

<sup>28</sup> (Williams, et al., 2018)

<sup>29</sup> (Gobbo Fernandes, 2016)



broader and must explicitly include marginalised economic actors rather than assuming trickle-down benefits. The permanence of informality, both for those working for themselves and those working in formal supply chains, and marginalised actors' entrenched underemployment must be addressed hand-in-hand with tackling environmental degradation. Overall, we need **job transformation strategies**, not just approaches to job creation. This report discusses how other sectors and specific interventions can offer important benefits and tick multiple boxes: providing transformational, decent, green jobs for marginalised economic actors.

## Methodology

The focus of this report is on options for decent and green jobs for marginalised economic actors, particularly those working informally, and women, in Africa and South Asia. This is considered within an overall context where there is mounting pressure from current trends and realities to create or transition jobs and economies to fair, green and low-carbon models of development. Within this we are specifically interested in the measures that could support better outcomes here in terms of (1) decent and green work opportunities and (2) broader transformative change. We developed an **analytical framework** (annex 1) which we used to analyse the potential of certain sectors and specific interventions for these sorts of jobs.

However, we were constrained by two factors. Firstly, using the terminology 'decent and green jobs', draws up few references, via academic search engines, both separately and together. Secondly, our interest in the way in which these kinds of jobs are accessible to marginalised economic actors is also largely an undocumented and under-researched area. This shaped the type of research we were able to gather. Having a well-formed conceptual framework around decent, green, marginalised economic actors and transformational potential, which was developed with peer input, allowed us to gather thinking, instead, from diverse fields of material and practice.

The methodology for the project was desk research, discussions with key stakeholders and with practitioner organisations working on relevant projects using a semi-structured set of questions. These interviews helped to shape the project and guide us into particular innovative case studies which are not reported on in academic work, thus far. Stakeholders came from academia, think tanks, unions, and sectors like public transportation and renewable energy.

Our own previously commissioned work<sup>30</sup> (Trace, 2017), it was found that there is very little disaggregation of discussions of impact by income level or other forms of marginalisation. We instead focussed much more descriptive project-level data which provides interesting insights into potential decent, green job opportunities for marginalised actors. At the scoping stage for this work, it was also recognised how little high-quality empirical work on labour market conditions exists and this is linked to limitations of official data in this area, although alternative surveys of employment are increasing.

Papers and material were gathered using a snowballing technique and from recommendations from interviewees, but without an extensive use of academic search engines – given the newness of decent and green jobs literature. What also emerged through the data collation process was a recognition that although there are groups of literature around decent work, green job options, the livelihoods of marginalised actors and informality, there is very little research analysing the overlap between these areas; the benefit of this study has been to explore these elements through a shared conceptual framework. Due to a lack of data that is transdisciplinary across the decent, green, inclusive and transformational, dimensions of the conceptual framework, some of the data that could be found is in the form of ranges rather than more precise estimates and thus should be interpreted as a broad approximation.

### Structure of the report

<sup>30</sup> (Trace, 2017)

**Section 1: Approach to transformative job creation - key sectors**

Over the last five years, there has been a noticeable increase in the discussion on decent and green job creation including in new and emerging sectors, or in traditional sectors which have the potential to contribute to positive outcomes through changes in their ways of working. These sectors are considered in light of our analytical framework (annex 1). Importantly, no sector is innately ‘decent’ or ‘green’ – we can ensure decent and green employment across a range of sectors under the right conditions. This section considers these conditions, with a careful analysis of the opportunities that are emerging for marginalised economic actors, particularly women and those working informally. We draw commentary from reports or interviews with stakeholders working in those areas.

**Section 2: Approach to transformative job creation – case studies of decent and green job creation**

A comparison of case studies, from Africa and South Asia, where jobs have been created with decent and green considerations built into the design and strategy. We draw commentary from available practitioner literature, including project-level data, interviews with stakeholders, and where available, official evaluations.

**Section 3: How to tackle the challenge of encouraging transformative job creation**

Based on the learning from material gathered from the review of sectors and case studies, this section presents discussion points and suggestions for future areas of research and policy-making.

## Section 1: Approach to transformative job creation – key sectors

No sector is inherently ‘decent’ or ‘green’ or ‘accessible to marginalised economic actors’. However, there are certain sectors which have a high potential to offer this type of work under certain settings. In this section, we review several sectors for their potential to create decent and green jobs for marginalised economic actors. The choice of the sectors presented here followed our initial snowballing to understand where there was potential for transformative outcomes and guided by suggestions and signposts by stakeholders that we interviewed who drew to our attention the most relevant sectors from their perspective.

Our focus here is two-fold. Firstly, a number of sectors are consistently highlighted in the literature as holding potential for decent and green employment<sup>31</sup> (including in new and emerging sectors or traditional sectors which have the potential to contribute to positive outcomes through changes their ways of working). Secondly, our previously commissioned paper<sup>32</sup> the renewable energy and agriculture sectors, in particular organic agricultural production, were identified as two sectors with great potential for innovative decent and green job creation; other sectors were identified as having great potential, but found to have little available literature to assess viability. We drew on the sectors emerging through these two processes as a starting point for our analysis.

What is set out below is an initial review and is not exhaustive. A fuller sector analysis would involve looking at industry size and projection, capital, labour and investment profiles, industry dynamics and any recent developments. This type of information is not yet available in the case of the sectors that were identified and researched. The evidence that was used was available reports, discussion pieces, and some trends analysis, where available. In most sectors, figures that indicate projected job creation were unavailable, although there was some data on the number of people that are currently employed. Considerations of the quality and availability of evidence have also been highlighted.

### ***The waste removal management and recycling sector***

Two billion people are without access to solid waste management with some low-income countries having just over 30% waste collection coverage (compared to 100% in most high-income countries). This has massive health and environmental implications with the costs to society (in terms of health care, lower productivity, flood damage and damage to businesses) exceeding the financial costs per capita of proper waste management by a factor of 5-10<sup>33</sup>. Better waste management offers a transformative job solution particularly as repair and recycling is often intrinsic to how resources are used in developing countries. This is an existing way of life for many people in developing countries. It involves reusing and repairing products or recovering their component materials at the end of each product’s life for repurposing into new goods or for new uses<sup>34</sup>.

The potential of this sector is driven by the sheer volume of waste generated and the fact that it is now being recognised more explicitly as part of a green economy framework – for example, achieving a 75% recycling rate would yield greenhouse gas emission reductions equivalent to shutting down one-fifth of all U.S. coal power plants.<sup>35</sup> In light of this, there is demand for more policies around renewability and recycling. An estimated 15-20 million people are employed in the sector in developing countries<sup>36</sup> and up to 1% of the urban population works informally as waste pickers engaged in recycling collecting, recovering, sorting, grading, cleaning, baling, or compacting waste, as well as processing waste into new products like repurposing plastic bags<sup>37</sup>. This group of workers are not a part of official statistics and so exact numbers of workers are hard to measure. In recent years however, there has been a more concrete effort to understand

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<sup>31</sup> Drawing on research (Poschen, 2015) and as we note in our paper, (CAFOD & Christian Aid, 2017) “Sector priorities will differ depending on country context but globally, we highlight agriculture, forestry, fishing, garments, energy, resource-intensive manufacturing, waste management, recycling and construction. Together these account for more than half the global work-force (mostly in the informal economy). They involve many low-paid, strenuous jobs that traditionally have low agency, either to negotiate or collectively raise workers voices through unionisation or self-help groups. These jobs are also heavy resource consumers and polluters or directly dependent on natural resources and specific climate conditions.”

<sup>32</sup> (Trace, 2017)

<sup>33</sup> (UNEP, 2015) UNEP (2015)

<sup>34</sup> (Preston & Lehne, 2017)

<sup>35</sup> (Tellus Institute and Sound Resource Management, 2011)

<sup>36</sup> (Poschen, 2015)

<sup>37</sup> (ILO, 2013a)

this sector and it is estimated that globally there are 405 registered associations linked to informal waste picking.<sup>38</sup>

Waste-picking and recycling has a long history in developing countries. Most registered organisations are based in Latin America<sup>39</sup> but with a growing number of self-organised groups emerging across South Asia (for example 17.7% of registered organisations are based in India) and Africa. There are also a growing number of examples of social enterprise-based recycling efforts that involve marginalised actors in their processes. For example:

- **Wecyclers**<sup>40</sup> in Nigeria is a social enterprise working to help communities reclaim their neighbourhoods from unmanaged waste using cargo bicycles to provide convenient recycling services to households, supported by a text-based service. The transformative potential of this project is indicated by reported demand from Nigeria's recycling plants who need recycled waste materials due to local and foreign demand for end products.
- **Gitanjali**<sup>41</sup> – a waste recycling social enterprise run solely by women, in Ahmedabad in India, was set up after a 35% crash in the price of recycled waste following the Global Financial Crisis in 2007. Run by workers association, SEWA, it provide a source of quality employment to waste pickers within its network. Women transform recyclable material from mixed waste to create a range of products, and handicrafts. The cooperative initially served to supplement these women's income and teach them technical and entrepreneurial skills. In addition to receiving SEWA's business support, the Gitanjali sisters also have access to a range of supportive services, including child care. This support mitigates nonfinancial and unpaid care work constraints. Gitanjali members all have equal shareholder rights in the cooperative.
- In Uganda, **YELI**<sup>42</sup> is a paper bag production company which started in 2008 after the Ugandan government put a ban on the use of plastic bags in order to reduce the environmental damage they were causing. The company now employs over 20 people and produces more than 20,000 paper bags every week – there is however major potential for this business to grow with the founder estimating he was meeting just 5% of the demand in 2014.<sup>43</sup> Based in Kasokoso, a slum outside Kampala, and manufacturing their products entirely by hand<sup>44</sup>, this business is labour-intensive, providing jobs to marginalised economic actors.
- In Ethiopia, '**soleRebels**'<sup>45</sup> is a fast-growing African footwear brand which is 100% made by hand using locally-sourced and recycled materials like old car tyres, discarded clothes and hand-loomed organic fabrics using highly-skilled local craftsmen.
- **EcoPost**<sup>46</sup> is one of Kenya's biggest plastic recycling businesses collecting rubbish from dumpsites and garbage cans across Nairobi, to manufacture fencing posts. These posts, which are used to fence houses and forest reserves, are becoming a preferred alternative to timber.

There are also examples emerging which appear at first to be transformational, offering economic, environmental and social benefits, but which on closer inspection do not provide decent, green jobs or options for transformation. For example, in Ethiopia, the **Reppie facility**<sup>47</sup> has created hundreds of jobs by turning former landfill site, Koshe, into Africa's first major waste-to-energy plant. Reppie combusts 1400 tons of waste a day to provide electricity to 3 million homes (25% of Addis Ababa's homes).<sup>48</sup> The project markets

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<sup>38</sup> (Fernández, et al., 2014)

<sup>39</sup> In the WAW database, 26.7% of registered organisations are based in Brazil alone and 59.6% based in Latin America overall (Fernández, et al., 2014)

<sup>40</sup> See [www.wecyclers.com](http://www.wecyclers.com)

<sup>41</sup> SEWA Gitanjal case study, 2018 – project findings report (unpublished)

<sup>42</sup> See <https://www.yelipaperbags.com/about.html>

<sup>43</sup> (Kermeliotis & Ellis, 2014)

<sup>44</sup> (Kermeliotis & Ellis, 2014)

<sup>45</sup> See <http://www.solerebels.com/>

<sup>46</sup> See <http://www.ecopost.co.ke/>

<sup>47</sup> See <https://www.youtube.com/watch?v=k9odsxm9U8>

<sup>48</sup> (Cambridge Industries, n.d.)

itself as providing renewable energy from waste by using the steam from the combustion to create clean water and the ash from the burnt rubbish to create bricks for construction. While this circular-economy modelled business has clear potential to be transformational, in reality there are concerns about incineration and waste-to-energy projects. GAIA<sup>49</sup>, a global alliance of grassroots organisations mobilising against incineration and advocating for greener alternatives note myths around the industry<sup>50</sup> highlighting that despite the story often told, burning waste contributes to climate change and that all incinerators pose considerable risk to the health and environment of neighbouring communities as well as that of the general population. More technologies and investment in the education, recycling and composting capabilities of the existing waste-picking community is needed. Further, it is important to recognise that a lot of the waste in developing countries is imported – for example in Ghana, imported textile recycling has damaged the domestic textile industry as imported clothes are sold much cheaper than domestic, traditional clothes<sup>51</sup>.

Waste management demonstrates the importance of collective action and coalitions between community groups, social movements and NGOs suggesting wider transformative potential that gives people agency from mobilising together<sup>52</sup>. Tearfund<sup>53</sup> have been running community waste management projects in Brazil using circular economy principles to help rural farmers use animal waste to convert into cooking gas and nutrient-rich fertiliser, which have been shown to improve income levels for participants. The charity WasteAid<sup>54</sup> has trained people in community waste management to help them to set up local recycling businesses and work with the local municipality and waste collection companies to clear and prevent illegal dumping.

**Summary:** While there is some data on current employment in this sector, there are no projections for future employment in developing countries. However, the volume of projects and social enterprise initiatives in the recycling sector in Africa and South Asia and the experience in Latin America suggests that many jobs will be created here to meet everyday needs. More project-level data of the kind set out on page 11, could be gathered and analysed across Africa and South Asia to build a fuller picture of the potential in this sector and particularly learning for how projects transition from small to medium and large scale. The initial exploration suggests that there are many initiatives where formalisation and a structured business model have led to positive impacts.

One of the most positive aspects of this sector is its transformative potential through engendering the integration of social, environmental and economic justice especially in community waste management. Yet, there are still major social justice issues within this sector and much work still needs to be done in South Asia for example where waste collection is still seen as the work of lower caste people. Greater status for the work of recyclers can help it to reach its transformative potential.

In the longer-term, whether these jobs will continue to be accessible to marginalised economic actors in part depends on potential changes in this sector. In particular, technology innovations may help to bring about greater transformation, in particular affordable asset-tracking technology and predictive analytics have been discussed as having a lot of potential in this sector<sup>55</sup>.

### ***The public transport sector:***

Public transport is critical for developing countries' infrastructure, both for urban areas where livelihoods depend on transport options and in rural areas where more roads and better connectivity are so important for marginalised communities.

An important new piece of research showing the of benefits of low-carbon cities<sup>56</sup> sets out that directing investment towards clean public transport and more vehicle efficiency can generate major and rapid benefits

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<sup>49</sup> (Fernandez, 2017; Vilella, 2017)

<sup>50</sup> (GAIA (Global Alliance for Incinerator Alternatives), 2012)

<sup>51</sup> Dr Andrew Brooks of Kings College estimates that in Ghana, from 1975-2000, textile and clothing employment fell by 75% due to imports.

<sup>52</sup> (van Zeeland, 2014)

<sup>53</sup> (Kendal, 2017)

<sup>54</sup> See [www.wasteaid.org.uk](http://www.wasteaid.org.uk)

<sup>55</sup> Such technology would help to assess the potential recyclable benefit of gathered material and also the lifecycle of how many times it might be possible to use it again.

<sup>56</sup> (Gouldson, et al., 2018)

in a range of areas. The report argues that such investments could lead to the creation of between 3 million and 23 million net jobs annually in non-OECD cities, in the period to 2050. Importantly for economic productivity (and well-being overall) this could tackle congestion, cutting the wasted hours spent sitting in traffic by up to 30%.

Investments such as this in the transport sector have major transformative potential. They could reduce by over 8% the 1.3 million deaths and 78 million transport-related injuries worldwide each year (in fact, road traffic injuries are in the top-ten causes of death in all but high-income countries)<sup>57</sup>. Alongside this, the low-carbon cities work finds that investing in city cycling infrastructure can save five times the cost of the investment by improving public health and reducing traffic congestion. Further as people from lower income brackets typically spend more time, and a higher proportion of their income on commuting, improving accessibility therefore positively benefits poor people living in urban areas. The research also found that vulnerable populations often have poorer health than average from living and working in polluted areas. As a result, marginalised groups benefit disproportionately more from interventions that improve air quality and reduce congestion. What this work suggests is that a range of carbon-targeting investments in public infrastructure would lead to many benefits, particularly, for people living in developing countries and therefore, the potential transformative impact of this sector is significant.

There are particular gender issues to consider for this sector. As public transport changes and expands to meet the demands of urban concentration and growing populations, women's employment and wider participation in transport needs to be well-understood. As public transport users, women face many barriers that limit their mobility, particularly issues around the discrimination they face whilst using transport. The International Transport Workers' Federation (ITF)<sup>58</sup> set out that public transport should not be gender neutral and that women passengers and women as workers have particular needs that are not currently met. Restrictions on women's employment in the transport sector are also significant. Recent data<sup>59</sup> has shown that more than 2.7 billion women globally are legally restricted from having the same choice of jobs as men and 19 economies currently impose restrictions on women's employment in transport.

Public transport should be delivered in a way that all users feel secure. In recent years, in particular in India, the safety of public transport has also come into the spotlight with sexual harassment being identified as a key barrier. Options include enhanced protection for women or women-only carriages.

Major institutions have a responsibility to involve marginalised groups in their consultations. Alana Dave at the ITF highlighted that more factoring of the perspectives of marginalised groups in public transport policy development is needed for institutions like the World Bank, given occupational segregation in relation to women. Further, gender outcomes must be strategically understood, using more than quota methods and the public transport workforce and their union representatives need to be involved in representing and negotiating for outcomes for marginalised economic actors.

The potential for job creation is significant in this sector, but political capture issues impede broader transformational change. Whilst public transport is a public good which means that the State has a responsibility for provision and upkeep, this is changing as the framing of, privatisation in developing countries, and now the framework for the SDGs have set precedents for involving the private sector in the delivery of many areas, despite the risks that entails of social benefits being eroded at the expense of gaining profits. Many public services are being considered for outsourcing and privatisation by developing country governments and donors. Decent and green outcomes for marginalised economic actors could be sacrificed if vested interests predominate and commercial goals overtake the need to maximise social benefits. In different parts of Africa, for example, there is anecdotal evidence that China is providing public transport infrastructure. When State mandates are removed, the outcomes for marginalised economic actors often lose importance.

**Summary:** Public transport is a huge formal and informal employer so transitioning to a greener model would potential have implications for huge numbers of employees – and the cities they operate in and commuters they serve. Transport, especially in the public sector, also has a tradition of organisation and unionisation

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<sup>57</sup> (World Health Organisation, 2015)

<sup>58</sup> (Dave, 2018)

<sup>59</sup> (Iqbal, S, 2018)

and hence of decent jobs. Issues around women's participation are at risk of not being prioritised and need to be tackled strategically by policymakers.

Targeted investments<sup>60</sup> in greening public transport hold significant potential for both job creation and broader transformative outcomes. The potential political capture by private sector firms that are being encouraged to fill the space that the State should occupy is however a risk. Overall, green transitioning is still gathering momentum in this sector. The automation and robotisation aspects of future development are also important for the transportation sector especially in ticketing and driving.

### ***The forestry sector:***

The forestry sector employs 13.7 million formal workers globally and its commercial output represents around 0.4% of the world GDP. There are 41 million informal workers engaged in the broader forestry, wood, pulp and paper sector. In the formal forestry sector at least 2 million jobs in the forest industries (15.6% of total formal employment) are based on certified sustainable management and can be regarded as 'green jobs'<sup>61</sup>.

The potential for decent and green jobs lie in conservation, sustainable management of forests and enhancement of forest carbon stocks. It is estimated that with targeted public investment, such sustainable forest management could generate 10 million new jobs with considerable potential to fulfil economic, social and environmental objectives and have transformative effects through this. These estimated 10 million new jobs could support rural economies, and could also build a natural asset base to combat deforestation and degradation, restoring or improving an estimated 8 to 10 million hectares of forests and woodlands.<sup>62</sup>

Despite being a sector with a certification process to help qualify green jobs, from an overall environmental perspective, the sector itself through mono-cropping practices, deforestation and the process involved in non-timber forest production has a poor track record on a number of sustainability issues. The continued loss of forests threatens the livelihoods of 44 to 64 million workers employed in the forestry sector and of some 410 million indigenous people and communities, mostly in developing countries, who depend on forests for all or part of their livelihood (UNECE, 2018)<sup>63</sup>.

Supporting a transition in this sector is important to enhance better climate change outcomes. The sector has a huge impact on CO<sub>2</sub> emissions; the Climate Action Network (CAN) note that halting the destruction and degradation of forests and peatlands would reduce the carbon emissions of this sector to zero, which in turn would cut 10% of global emissions.<sup>64</sup> CAN highlight "an additional set of solutions is needed to conserve natural sinks and reservoirs of carbon" which together store at least 6000 GtCO<sub>2</sub>. This is a huge amount of carbon - far more than in the entire atmosphere (about 3000 GtCO<sub>2</sub>)."<sup>65</sup> Existing carbon stocks, especially forests and peatlands must therefore be preserved as continuing to release even a small part of these into the atmosphere would significantly reduce land-based resilience to climate change.

Community forestry management has emerged as a strong alternative to industrial logging with the ability to both protect and restore forests while also using their products in a more sustainable way. In community forestry, communities have the right to manage the forest resources upon which they depend, with a view to improving the living conditions of their members.<sup>66</sup> Transformative outcomes can be realised through the realisation of agency, better participation and representation. Community members are able to organise themselves and implement governance structures where trade-offs between the members conflicting interests can be reconciled, to improve sustainability outcomes over time.<sup>67</sup> Such initiatives have seen success, in Nepal, for example:

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<sup>60</sup> (Gouldson, et al., 2018)

<sup>61</sup> (ILO - Green jobs programme, 2017)

<sup>62</sup> (Nair & Rutt, 2009)

<sup>63</sup> UNECE, 2018. Green Jobs in the Forest Sector

<sup>64</sup> (Climate Action Network, 2018)

<sup>65</sup> (Climate Action Network, 2018, p. 3)

<sup>66</sup> (Merlet, 2015)

<sup>67</sup> (Merlet, 2015, p. 18)

*“where community forests had been promoted by the State for preservation and reforestation, extremely significant economic and social results have been achieved. The 1.7 million hectares managed by 18,000 user groups benefits 2.24 million households. Eighty-six per cent of communities have improved their forest areas, limited erosion, protected the watershed and increased their agricultural production. The most disadvantaged groups, the Dalits, but also women have seen their income increase. The calculations made by the government show a significant increase in employment and household income, in particular for forests of more than 100 hectares.”<sup>68</sup>*

The UN (2015)<sup>69</sup> recommends that in the forestry sector, data improvements are needed on gender, along with a greater voice for women in governance, gender-sensitive environmental assessments and promotion of women’s voices and organisation. Trace (2017)<sup>70</sup> highlighted that the forestry sector does merit further investigation as a potential source of decent work for women citing examples of women’s socio-economic empowerment through enterprises of non-timber products in Burkina Faso, Ethiopia and Zambia<sup>71</sup>.

The International Institute for Environment and Development (IIED) looked at the role of artisanal carpenters, loggers and wood sellers in Cameroon, the Central African Republic, Congo Brazzaville, the Democratic Republic of Congo (DRC) and Gabon<sup>72</sup>. Either invisible, due to informality, or branded as criminals in many laws, policies and national statistics, the artisanal timber sector is, in reality, as significant in scale as the formal timber sector in these countries, accounting for 45,000 jobs and €34 million of economic activity a year in the DRC, for example. The IIED suggests that the building of trust between the artisanal sector and policymakers to help artisans access to information, markets, technical skills and finance could help this sector to have a more formal basis which would lead to livelihood outcomes for those involved.

**Summary:** For the forestry sector, there is potential to transform current practices and encourage a strong focus on decent and green job creation. With a wide prevalence of informality, transformation has the potential to affect the lives of many communities of women and indigenous groups who live in forest areas. The spur for innovation and transformation will require concerted investment and institutional support from relevant agencies particularly to respond to concerns on the impact on indigenous communities from deforestation and degradation.

### ***The renewable energy sector:***

Energy sources are critical to the running of the whole global economy. Increasing the share of renewable energy in the global energy mix, increasing efficiency and providing modern energy access for all by 2030 are aspects of SDG 7. We need to transition to 100% renewable energy systems by 2050 to address climate change. The renewable energy sector covers a number of different economic activities and its potential for decent and green job creation is compelling as well as complex, with questions around who wins, loses and impacts extending beyond job creation.

The renewable energy sector creates jobs directly (manufacturing, technical installation, maintenance) and indirectly (through jobs created up and down the value chain) and, of course, through energy for productive uses throughout the economy.

Overall, renewable energy has a higher number of jobs created per unit of energy produced than energy produced through conventional sources.<sup>73</sup> A recent study<sup>74</sup> found that for China, spending on clean energy will produce nearly 70% more jobs per dollar of expenditure than an equivalent amount on fossil fuels. This is a result of longer and more diverse supply chains, higher labour intensity, and increased net profit margins. The latest available data shows that in 2016, the global renewable energy sector employed 9.8 million people – a 1.1% increase over 2015. Jobs in renewables, excluding large hydropower, increased by 2.8% to reach 8.3

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<sup>68</sup> (Merlet, 2015, p. 19)

<sup>69</sup> Global Gender and Environment Outlook report (UN-REDD, 2015)

<sup>70</sup> (Trace, 2017)

<sup>71</sup> (Shackleton, 2011)

<sup>72</sup> (International Institute for Environment and Development, 2016)

<sup>73</sup> (ILO, 2014)

<sup>74</sup> (Chen, 2017)



million in 2016.<sup>75</sup> Overall, China, Brazil, the United States, India, Japan and Germany account for most of the renewable energy jobs. However, 62% of the global total employment is located in Asia. Globally, renewable energy jobs include:

- **Solar photovoltaic (PV)** is the largest employer, with 3.1 million jobs, up 12% from 2015. This growth came mainly from China, the United States and India. Most of the job creation happens downstream (installation and servicing rather than manufacturing).<sup>76</sup>
- **New wind installations** in the United States, Germany, India and Brazil contributed to a 7% increase in global wind employment, which reached 1.2 million jobs. One of the world's leading wind turbine manufacturers (Suzlon) is located in India where more than 80% of their components are domestically sourced strengthening the job creation and economic development of the domestic economy.<sup>77</sup>
- **Biogas** which is a major employer, with jobs concentrated in feedstock supply. Biogas is particularly interesting from a transformational perspective as it fits into a circular economy model by turning waste into a resource – thus having broader environmental, social and economic impacts than solely job creation.

There is also significant job creation potential in the related energy efficiency sector. This sector is important as it has the potential to reduce overall energy demand and thereby helping to meet climate change goals while at the same time creating jobs and improving access (through the creation of new, more efficient appliances). While there is limited research into this sector's potential in developing countries, research from the US found that investments in energy efficiency created job opportunities and harnessed existing skills.

Renewable energy also has the potential to create jobs outside of the sector as a result of the provision of energy services. This, in and of itself is some of the transformational potential of the sector – if truly green energy is provided it can have wider environmental impacts through being an important input allowing other industries to green their ways of working.

From a poverty reduction and sustainable and inclusive development aspect, off-grid energy solutions, and the jobs potential here is important for consideration, especially for the most remotely-based economic actors. Research<sup>78</sup> has found that off-grid, renewable energy is among the most important in offering green job creation that is accessible to marginalised economic actors, particularly women, while at the same time making a significant contribution to the greening of economies, as explained below:

*“...women entrepreneurs and technicians can play an important role in expanding access to decentralised renewable energy services. The literature as a whole suggests that women entrepreneurs may have a particularly important role in building a public understanding of the benefits of renewable energy in the domestic environment and encouraging adoption of new technologies.... (there are) rich opportunities for women to challenge gendered stereotypes of what male and female jobs are. But these opportunities do not come about without deliberate supportive action.”*

Overall, access to modern energy (and ideally decarbonisation of energy systems) can create important transformations for poor and vulnerable people through extending provision of grid electricity or decentralised renewable energy solutions, as these are the most cost-effective and easily deployed for the majority of energy poor communities.

Becoming wholly green is a reachable aspiration in this sector. This again highlights our point that sectors are not inherently green. For example, biofuels and large hydropower are often included in renewable energy statistics (and indeed provide 1.7 million jobs and 1.5 million jobs respectively). However, both of these

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<sup>75</sup> (IRENA, 2017)

<sup>76</sup> (UNEP, 2008)

<sup>77</sup> (UNEP, 2008)

<sup>78</sup> (Trace, 2017) (Sustainable Energy for all, Power for all, ODI, 2017)

sectors come with substantial social, human rights and environmental costs<sup>79</sup> which significantly impact on their ability to be considered truly 'green' and this in turn impact on their ability to be considered 'transformational'.<sup>80</sup>

The ILO highlight that "there is no question that switching from fossil fuels to renewables entails a vast improvement in the occupational health situation."<sup>81</sup> Trace (2017) found that it is "possible for jobs in decentralised renewable energy service provision to offer decent work opportunities, particularly with respect to increased and more stable incomes, integration of women into market value chains and, in some cases, into a transition from the informal to the more formal economy."<sup>82</sup> Importantly however, decent work provision is not automatic, and specific steps would need to be taken to ensure that this is a central way of working within the sector.

**Summary:** There is growing evidence that countries are capable of generating their power from renewable sources<sup>83</sup> and that the sector can be a substantial generator of jobs and economic development. This sector is also one of the strongest examples of a sector that has the ability to be truly transformative, catalysing social, economic and environmental benefits - provided the shift to renewable energy systems is accompanied by other supporting services which ensure that social and environmental impacts are shared and benefits distributed to marginalised end-users. Renewable energy as an input to other industrial sectors provides opportunities for other organisations green their ways of working.

For marginalised economic actors, providing energy would boost their economic prospects. Women in particular stand to gain by cutting the time spent gathering fuel and cooking and avoiding household air pollution.<sup>84</sup>

Given the interlinkages of various renewable industries to the rest of the economy, their growth potential and the kinds of investment needed for mainstreaming, there is a need for more research. It is important that energy provision is part of a broad strategy<sup>85</sup> to co-ordinate and encourage policies that take a holistic and inclusive approach which considers relevant development goals and efforts to address climate change.<sup>86</sup>

### ***The Agriculture Sector:***

Agriculture currently employs around 1 billion workers worldwide.<sup>87</sup> Sixty to 90% of Africa's work force (depending on country context) relies on the agricultural sector for livelihoods, income and employment, especially in family farming models.<sup>88</sup> Economic history tells us that employment in agriculture is not static, however, and when economies transform, labour and capital move out of agriculture and into secondary or tertiary economic activities – but often the labour intensity of agricultural sectors remains despite a broader transformation.

There is currently little decent work available in the agricultural sector as a whole. Overall, underemployment is a major challenge and most people who are poor, are employed in the agricultural sector.<sup>89</sup> Family farms make up 90% of the world's farms<sup>90</sup> where people are much less likely to earn a fair wage due to low levels of productivity. Occupational health and safety and child labour are other common risks when a family's

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<sup>79</sup> See for example critiques on large hydro pow (Ansar, et al., 2014)

<sup>80</sup> For hydropower to be considered a green option it would need to meet the principles outlined in the World Commission of Dams Report (2000). Ensuring strong environmental and social impact assessments and free, prior and informed consent (FPIC) by affected communities is also important together with integrated resource planning so that the best solution for energy provision is identified taking full account of potential impacts (for example see International Rivers' work (2013)

<sup>81</sup> (ILO, 2013b)

<sup>82</sup> (Trace, 2017)

<sup>83</sup> (International Energy Agency (IEA), the International Renewable Energy Agency (IRENA), United Nations Statistics Division (UNSD), the World Bank, the World Health Organization (WHO), 2018)

<sup>84</sup> See Sustainable Energy for All, Power for All and ODI research (2017) which provides a balanced review of the evidence around the household impacts of gaining access to energy

<sup>85</sup> The work of International Rivers (<https://www.internationalrivers.org>) is key for planning holistically for financial, environmental and social sustainability while simultaneously taking into account local context

<sup>86</sup> For example see CAFOD & IIED's work (2013)

<sup>87</sup> (Lowder, et al., 2016)

<sup>88</sup> (FAO, 2014a)

<sup>89</sup> (ILO, 2016)

<sup>90</sup> (Lowder, 2014)

livelihood depends on the family farm.<sup>91</sup> Research from Kenya<sup>92</sup>, Indonesia<sup>93</sup> and Mexico<sup>94</sup> all found that workers in various forms of agriculture employment (from dairy farming, through to working on plantations) faced decent work deficits including a lack of employment contracts and the casualisation of labour – with this disproportionately affecting women. Decent work deficits in agriculture are a global phenomenon affecting both high and low-income countries.<sup>95</sup> Worker health and safety is a key concern in the sector and the World Health Organisation (WHO) and UN Environment (UNEP) have documented evidence from around the world of the negative health impacts of chemical use through conventional agriculture.<sup>96</sup>

In relation to conventional, intensive, or industrial agriculture, this is currently a major contributor to environmental degradation – threatening our ability to produce food and provide jobs in the future. FAO (2011) research highlighted that the sector is a major contributor to GHG emissions (accounting for about one-third of GHG emissions), desertification and freshwater scarcity, biodiversity loss, pest resistance and water pollution.<sup>97</sup> Soil degradation is of critical concern as soil is the basis for our ability to produce food both now and in the future and is an important carbon ‘sink’ overall. Conventional intensive farming has resulted in a third of the world’s soil been affected, with all topsoil projected to be degraded within the next 60 years if current rates continue.<sup>98</sup>

The effects of environmental degradation and climate change disproportionately affect poor people’s livelihoods –because of the predominance of marginalised economic actors in this sector. The ILO reports that this directly impacts on jobs and livelihoods with “millions of hours of work [being] lost to natural disasters, and millions [more to be...] lost to higher temperatures”<sup>99</sup> not to mention the projected decreases in overall agricultural productivity.<sup>100</sup> Research from Africa and South Asia found that climate change is projected to decrease crop productivity by an average of 8% over the two regions. Agriculture as a sector will become more precarious to work in, and people’s vulnerability will increase unless we adopt climate resilient, environmentally sustainable practices.

IAASTD (the International Assessment of Agricultural Knowledge, Science and Technology for Development) discuss <sup>101</sup> the ‘multifunctionality’ of agriculture as a sector which “has multiple outputs and contributes to several ends at the same time”.<sup>102</sup> As the ILO highlight, “agriculture must be both decent and green to ensure it continues to benefit us in the long term: Future food security (SDG 2) can only be sustainable if it is coupled with environmental sustainability, climate action (SDGs 13, 14 and 15) and adaptation to climate change.”<sup>103</sup> For this, we need more regenerative and sustainable farming practices. Forms of sustainable agriculture including organic farming, regenerative agriculture, agroecology and conservation agriculture<sup>104</sup> together with land-use management systems such as agroforestry have all been found to have significant economic, environmental and social benefits in different contexts.<sup>105</sup> It must be noted, however that conservation agriculture has still been criticised as although better for the environment than conventional methods, it still uses chemicals - something which fully regenerative agriculture avoids.

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<sup>91</sup> (FAO, 2014b)

<sup>92</sup> (Matofari & Muthui, 2016 )M

<sup>93</sup> (Sinaga, 2018)

<sup>94</sup> (Lopez, et al., 2016)

<sup>95</sup> There is much research around decent work deficits in agriculture in high income countries. A handful of such studies include research which has found that the agricultural industry in the UK is a “high-risk” sector for exploitation and abuse of seasonal workers, including poor wages and working conditions (Government, 2018); research on health and safety risks for agriculture workers (and those living near farms where chemicals are used) including 2017 research on birth defects linked to pesticide use in north America (Larsen, et al., 2017) and 2017/18 figures that agriculture has the highest fatal industry rate of all sectors in the UK (Health & Safety Executive, UK Government, 2018) and other major decent work deficits experienced by migrant women workers in particular in Italy and Spain (European Parliament, 2018).

<sup>96</sup> (WHO & UNEP, n.d.)

<sup>97</sup> (FAO, 2011)

<sup>98</sup> (FAO, 2015)

<sup>99</sup> (ILO, 2018, p. 29)

<sup>100</sup> (Liang, 2017; Ayinde, 2011)

<sup>101</sup> (IAASTD, 2008)

<sup>102</sup> (IAASTD, 2008, p. 6)

<sup>103</sup> (ILO, 2018, p. 45)

<sup>104</sup> It must be noted that these terms each have very different definitions and cannot be used interchangeably. Taken together they all work towards environmental sustainability, but their methods and approaches – and indeed inclusivity of marginalised economic actors – varies.

<sup>105</sup> For a further discussion on this see CAFOD & Christian Aid (2017b)

Sustainable agriculture offers significant environmental benefits. Agroecology<sup>106</sup> and Conservation agriculture<sup>107</sup> have been found to reduce agricultural GHG emissions through requiring less fuel for machinery and replenishing soils so that they increase the amount of carbon they extracted from the atmosphere (carbon sequestration). In fact replenishing soils, through sustainable agriculture has the potential to offset global fossil fuel emissions by 5-15%.<sup>108</sup> Sustainable agriculture, particularly where this is regenerative such as agroecology has also been found to increase biodiversity overall.<sup>109</sup>

Analysis of 286 recent sustainable agriculture projects<sup>110</sup> in 57 poor countries found that there was a 116% increase in yields in Africa using sustainable methods – and 128% increase for projects in East Africa in particular.<sup>111</sup> Agroforestry has had similar benefits with field trials in Malawi indicating that after the initial time-lag (i.e. typically in the third or fourth year of tree growth) maize yields have increased between 54-76% compared with traditional practices.<sup>112</sup> Much of this increase can be attributed to the rehabilitative nature of sustainable agriculture. However, it is important to note that in many cases there is a transition period from conventional to sustainable farming practices where benefits may be low initially as soils recover.

A transition to sustainable agriculture also has positive employment outcomes. Overall projections for 2050 estimate that employment through green agriculture and food production ranges between 8-13% higher than if we were to continue without such a intentional transition.<sup>113</sup> It is often argued that the labour intensity (i.e. to dig plant pits or the additional weeding) of sustainable agriculture is a deterrent of such a shift, however while the initial investment in labour hours may be greater, this does decrease overtime once the infrastructure (i.e. plant pits) has been developed.<sup>114</sup> Evidence also suggests that this initial labour requirement is in fact an opportunity for absorbing labour in marginalised rural areas and have the ability to slow-down rural-urban migration.<sup>115</sup> In rural Burkina Faso, digging zai pits<sup>116</sup> has been a job creator in for young men, who hire out their labour in teams to households that can afford this, to dig the pits.<sup>117</sup>

By early 2010 sustainable agriculture projects reviewed in 20 African countries had documented benefits for 10.39 million farmers and their families.<sup>118</sup> ILO estimates<sup>119</sup> do project an overall drop in employment in sustainable agriculture in developing countries, but this is consistent with a proportional rather than absolute shift out of agriculture.

Employment pathways generated from agriculture are wide and include sub-sectors such as primary production, agro-processing (own account SMEs or in factories), waged farm labour, retail, wholesale, aggregators/distributors, trading (companies or own account) together with economic activity in other sectors including employment in waste management, construction, renewable energy and services.<sup>120</sup> Sustainable agriculture also creates opportunities for the manufacturing of farming equipment for sustainable agricultural techniques. It has been noted that this is particularly true in Africa which still imports most of its equipment, but which increasingly manufactures simple equipment.<sup>121</sup>

As can be seen, many of these sub-sectors are in fact linked, and improvement in one can create jobs in another sector in the value chain (e.g. agricultural production increases can create employment for

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<sup>106</sup> (Rakotovaoa, et al., 2017)

<sup>107</sup> (Dendooven, et al., 2012)

<sup>108</sup> (Lal, 2004)

<sup>109</sup> (The Organic research Centre, n.d.; FAO, n.d.)

<sup>110</sup> (Pretty, et al., 2006)

<sup>111</sup> (UNEP-UNCTAD, 2008)

<sup>112</sup> (Garrity, et al., 2010)

<sup>113</sup> (Herren, et al., 2012)

<sup>114</sup> For example Ajayi, et al (2009, p. 276) found that their results did not support “the popular notion that agroforestry practices are more labour intensive.”

<sup>115</sup> (de Schutter, 2010)

<sup>116</sup> “Zai” is a term that farmers in northern Burkina Faso use to refer to small planting pits that typically measure 20-30 cm in width, are 10-20 cm deep and spaced 60-80 cm apart

<sup>117</sup> (Pretty, et al., 2011)

<sup>118</sup> (Pretty, et al., 2011)

<sup>119</sup> (ILO, 2018, p. 49)

<sup>120</sup> (ILO, 2018, p. 50)

<sup>121</sup> (de Schutter, 2010)

distributors, transporters and input retailers) which has broader benefits to the rural economy. The multiplier effects of employment generation in agriculture are therefore important highlighting how such agricultural transformation in turn generates broader structural economic transformation<sup>122</sup>.

In a review of the organic sector in Uganda (Africa's largest organic producer)<sup>123</sup>, Trace (2017)<sup>124</sup> found that the sector is having clear benefits in terms of decent work and driving women's economic empowerment. What is also clear, however is that many of the constraints for marginalised groups to engage in organic agriculture are no different to other sectors and that it is most likely that, without deliberate efforts to ensure inclusive policies, whether by those providing organic certification or through affirmative action by government, it is likely that it will be the slightly better off smallholder farmers and men that will benefit the most. In fact, conventional (industrial) farming receives 80% of all subsidies and 90% of all agricultural research funding in the EU<sup>125</sup> and sustainable agriculture receives just over 10% of the entire 2014 USDA Research, Extension, and Economics budget.<sup>126</sup> This under-resourcing is true for the aid sector as well. In the UK, for example, research has found that less than 5% of agricultural aid and less than 0.5% of the total UK aid budget has gone to agroecology since 2010 – and none of this has been committed to projects whose main focus is agroecological practices, but rather to projects which include some activities promoting agroecology at the most basic level (e.g., conservation agriculture).<sup>127</sup> The research concludes that “by largely supporting industrial and Green Revolution agriculture, UK Aid priorities contribute very little to the transition towards social-ecological sustainability in Africa, Asia, and Latin America”.<sup>128</sup> Shifting the balance of support towards sustainable agriculture will be essential in a transition towards greener outcomes.

**Summary:** The agriculture sector holds important potential for providing decent, green jobs for marginalised economic actors if a shift to sustainable agriculture is promoted and supported at a state level. As the ILO summarises, “complementary policies will be needed to ensure that these changes enhance decent work in the agriculture sector and that any employment losses can be used as an opportunity to guide the structural transformation in developing countries.”<sup>129</sup> There is also clear evidence that this shift isn't an isolated phenomenon but that scalability is truly viable. Conservation agriculture is currently only practiced on 9% of arable land globally<sup>130</sup> – as a highly adaptable form of agriculture, suitable in very different geographic, soil, climatic and cropping contexts globally, there is potential to extend this.<sup>131</sup> However, given that there are still environmental downsides to conservation agriculture, other forms of sustainable agriculture, such as agroecology and regenerative agriculture should also be prioritised.

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<sup>122</sup> For a full discussion of this process see CAFOD & Christian Aid (2017b)

<sup>123</sup> (Poschen, 2015; Rukundo, 2014)

<sup>124</sup> (Trace, 2017)

<sup>125</sup> (Ahmed, 2014)

<sup>126</sup> (DeLonge, et al., 2016)

<sup>127</sup> (Pimbert & Moeller, 2018)

<sup>128</sup> (Pimbert & Moeller, 2018, p. abstract)

<sup>129</sup> (ILO, 2018, p. 62)

<sup>130</sup> Including Argentina, Brazil, Paraguay and Uruguay (ILO, 2018, p. 46)

<sup>131</sup> (Friedrich, et al., 2017)

## Section 2: Approach to transformative job creation - case studies of decent and green job creation

In this section, a collection of case studies of decent and green job creation for marginalised economic actors is presented. Some of these case studies are at national level, others are smaller organisational projects.

It is important to note that the case studies do not fall neatly into the sectors outlined in Section 1. This is an emerging lesson from the report that decent, green jobs aren't sector specific, it's about a way of work and creating opportunities requires links across different areas. While the five sectors we reviewed all showed differing types of transformational potential (under the right conditions and with the right support), we undertook case study research to more deeply understand the issues of how projects and programmes are created and sustained, and through this learning, to highlight valuable lessons for policy makers and practitioners who are designing job creation projects.

The case studies are set out in Table 1. This material was sourced from suggestions from stakeholders that were interviewed and available practitioner literature, including project-level data, and where available, official evaluations. The table also highlights where these examples have transformative potential. The section begins with summarising a number of overarching lessons and observations from the case studies.

### ***Observations and learning emerging from the case studies***

**A standardised framework for decent, green jobs is not available:** In all the case studies, there is a lack of baseline data to track outcomes from. Overall there needs to be more analysis around the decent and green elements of all these case studies. Key gaps are around the actual impacts of the projects on individuals' livelihoods and also an understanding of which factors were most important in developing initiatives. A framework for decent and green job creation would be a very helpful tool in all of the case studies considered.

**Marginalised economic actors are the focus of the projects:** In terms of case studies' focus on marginalised economic actors, most of the projects were targeted at women, either as end-beneficiaries or in the development of the focus of the project. However, across all the case studies, there lacked any baseline tracking of participants' starting point. This made it hard to determine any impact that taking part in a project had on livelihoods.

**Transformational change:** In terms of transformational change, there were many indications that target beneficiaries were empowered through the projects that they participated in. However, there was not much understanding of what this transformation meant for their circumstances in social, economic and cultural dimensions. The ability of interventions to be transformational is important if job creation projects are to not work in silos but rather work towards catalysing broader dimensions of change that are valuable for the common good. Exploring the scalability of interventions is also important and this was largely lacking in most of the case studies.

**Formalising informal work:** The informality of work was not a consideration in many of the case studies analysed. As such, there was not much data on any informal aspects of the job creation e.g. whether job creation efforts sought to reinforce and create structures to allow to preserve cultural informality, or whether from conception, jobs that were created were conceived as formal. The ILO, together with many informal worker groups note that formalisation of the informal sector, under the right conditions (outlined in ILO Recommendation 204) is central to better decent work outcomes. Given the high proportion of marginalised economic actors that work informally, analysis of and responses to the needs of people working informally need to take a much more central role when designing job creation strategies. Further, more exploration of how policymakers and practitioners take up the challenge of Recommendation 204 from the ILO to facilitate

the transition of workers and economic units from the informal to the formal economy, while respecting workers' fundamental rights and ensuring opportunities for income security, livelihoods and entrepreneurship is needed.

**Governments play an important facilitative role:** Most of the job creation examples involved some level of government involvement, either as a key partner, or as a funder for an initial period. What wasn't available was an understanding or any commentary on how policymakers strategised to make these jobs happen, and what kind of processes and influencing was needed to get projects off the ground from conception to sustainability.

**Collaborative co-sector strategies are important:** Although this approach was not named, in some of the case studies, the importance of different sectors coming together to offer an integrated approach to developing decent and green jobs was key, e.g. the construction and solar sector in Zambia, the microfinance and solar sector in Bangladesh. What needs to be further understood in these examples is what happened at the policy design stage to bring this about. How was such planning convened and mediated and what factors led to such integrated approaches, in particular what did the cost-benefit analysis involve? The subsidisation of approaches especially in the case where target groups needed finance to buy technology or infrastructure for the adoption of a renewable power approach emerged as an important issue. The financial viability of renewable energy adoption was also critical for marginalised economic actors in a few of the case studies.

**Table 1: Seven Case Studies**

1. The Community Work Programme, South Africa	Aspect of work that indicate it is 'decent'	Green, greener transition and outcomes	Participation of informal, marginalised actors	Key evidence, limitations or enabling factors	Transformation potential
<p>The <b>Community Work Programme (CWP)</b><sup>132</sup> is a <b>South African</b> government programme that provides an employment-based safety net. It does this by supplementing livelihood strategies by providing a basic level of income security through work. The programme is adapted from the concept of a minimum employment guarantee, as developed in India. The work it offers seeks to addresses specific needs in the community through first using participatory approaches to enable communities to map their needs – in other words people in the area help to decide on the kind of work needed, and what is most urgent.</p>	<p>The programme explicitly seeks to target the challenge of underemployment in marginalised rural communities in recognition of the fact that broader policies to address unemployment and create decent work will take time to reach people living in these marginalised areas. The CWP doesn't specifically seek to create decent work, however there are elements which seek to work towards this.</p> <p>Firstly, the CWP seeks to increase productive work supplement income. Work offered is regular and stable (typically 2 days per week) which is a key element of decent work. Social dialogue is also a key element of both</p>	<p>In addition to social services and infrastructure the environmental sector has also been identified as an area of need in communities. There has therefore been a focus on green employment opportunities, for example river-cleaning, water-course management, food production and land rehabilitation.</p>	<p>The CWP has a strong focus on the social mobilisation of young disenfranchised people that have been out of work for more than a year. It also offers income supplements for part time work rather than displacing livelihood activity.</p> <p>In addition to employment creation, the programme has an explicit poverty alleviation focus. Results show that it tackles poverty directly (through stable income for beneficiaries) and indirectly (through the wider transformational value of the programme – see last column). There is also evidence of the programme not just tackling poverty but also</p>	<p>By April 2011, the CWP had grown to 74 sites with more than 89 000 people having participated, and a commitment from government to roll it out countrywide to reach 237 000 people by 2014. The goal of the programme going ahead is going to be get around 25% of the local population of each municipal area involved in the programme. A key limitation is a lack of evaluative data, particularly on the green aspects of the jobs created so it is unclear what kind of sustainability impacts there are in this example.</p>	<p><i>Changing social structures and addressing issues of power:</i> The CWP is interesting in the way that it specifically seeks to create work in areas of need as identified by the community (demand driven).</p> <p><i>Addressing social &amp; environmental needs:</i> Work that is supported within the programme must be 'useful' and improve the area and the quality of life for the people living there.</p> <p><i>Wider social impact:</i> Under certain</p>

<sup>132</sup> Information taken from project level data & a number of sources (Thutong Training and Development, 2011; Philip, 2012; Centre for Democratising Information, 2013; Chinembiri & Tsedu, 2013; Langa, et al., 2016; TIPS, n.d.)



<p>This could include for example fixing community assets like schools, roads and parks, setting up food gardens, looking after orphans and vulnerable children, helping sick people, assisting teachers at schools, looking after children while their parents are at work and working with the local police to improve safety and reduce crime. It has been running since 2002 and is now in its second phase of delivery since 2007.</p>	<p>defining the work that is needed and then within the programme.</p> <p>There have been some reported challenges around employee health and safety including a lack of appropriate safety gear.</p>		<p>increasing people's broader opportunities.</p>		<p>circumstances, and if implemented well, the CWP has been linked to crime prevention and social cohesion.</p> <p><i>Wider economic benefits:</i> Many of the 'social' projects and work that's created also has other indirect benefits for example home-based care services have the potential to release productive labour in the household – typically of women – in ways that unlock increased productivity.</p> <p><i>Poverty impact:</i> The project improved infrastructure, decreased unemployment and crime, cleaner environment, improved education and provision of social support services.</p> <p><i>Changing social perceptions :</i> this project has given labour social value through providing paid employment.</p>
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2. The Zambia Green Jobs Programme	Aspect of work that indicate it is 'decent'	Green, greener transition and outcomes	Participation of informal, marginalised actors	Key evidence, limitations or enabling factors	Transformation potential
<p><b>The Zambia Green Jobs Programme</b><sup>133</sup> –is a partnership between the Zambian Government, the UN, the ILO, and funded by Finland – with the aim of promoting the development of sustainable MSMEs in the construction sector by boosting competitiveness and business growth via green technologies. Running from 2013-April 2018 it aimed to create at least 5000 decent, green jobs for young people and improve the quality of at least 2000 jobs in MSMEs, in turn improving incomes &amp; livelihoods in at least 8000 households. One of the examples of this programme has been a project with women smallholder farmers in the Kalulushi Copperbelt Province who have been given a loan to build their own houses with green technologies</p>	<p>This project focuses on the creation of decent work. The aim is to support MSMEs to create green jobs (according to the ILO definition which has an explicit focus on green jobs being decent; including a focus on productivity, growth and competitiveness; and growth) as well as improve the quality of existing jobs by extending basic social protection and improving access to occupational safety and health services for workers in the building construction sector.</p> <p>It has a strong focus on women's empowerment as builders and producers. Through links with the Zambian Green Building Association, there has been a focus on occupational and health and safety standards.</p>	<p>This project qualifies as creating green work as the women participating in the project learnt to build homes using green principles and technologies.</p> <p>A second area of employment creation in this project is in the renewable energy sector where women were trained in solar panel assembly and installation (tackling the use of dangerous &amp; expensive alternatives which most off-grid, rural families use such as kerosene, and charcoal.) Solar sector job creation figures are not yet available.</p>	<p>The aspect of the Programme reported on here was particularly targeting women in rural areas.</p> <p>Project-level data also found that there are elements of this project which targeted the informal economy through the formalisation of small building businesses.</p> <p>The formalisation of the informal sector is in line with ILO recommendation 204 is important for creating decent work in the informal economy.</p>	<p>Final evaluations have not yet been completed, but by 2015, MSMEs created more than 2,660 decent and green jobs with Programme support in 2 years. The programme also supported the quality improvement of 2,018 green and decent jobs existing in MSMEs</p> <p>The women in Kalulushi built 18 houses in 5 months. The actual number of houses built and beneficiaries is much higher but up-to-date project data is not in the public domain. Also, although this is an ILO project, these jobs haven't yet been evaluated against a set of criteria, so data on impacts is lacking and the focus in the reporting available seems to mostly focus on how the Programme involved women.</p>	<p>This project explicitly focuses on green job creation which has benefits for broader society. In its design and focus it fits the 'transformational' criteria well.</p> <p><i>Wider social benefits:</i> The focus on job creation in the housing sector is an interesting transformational angle in this project,</p> <p>This project links with organisations like the Zambia Homeless &amp; Poor People's Federation build civil society capacity.</p> <p><i>Wider economic benefits:</i> the strength of this project has the ability to build the local economy through partnerships with the construction sector and solar sector.</p>

<sup>133</sup> Information taken from project level data including: (ILO, 2016b; United Nations, 2016) and see <http://www.zambiagreenjobs.org/>

3. Solar Home Systems in Bangladesh	Aspect of work that indicate it is 'decent'	Green, greener transition and outcomes	Participation of informal, marginalised actors	Key evidence, limitations or enabling factors	Transformation potential
<p>Over the last 20 years, Bangladesh has seen huge growth in the use of solar power. In 2000, 68% of the <b>Bangladeshi</b> population had no permanent access to electricity. To respond to this problem, the <b>Solar Home Systems (SHS) initiative</b><sup>134</sup> began in January 2003 to increase domestic solar power take up and was facilitated by the IDCOL- the Infrastructure Development Company Limited (IDCOL) to install solar in remote rural areas, which are not easily accessed by the national grid. By 2017, over 4 million solar home systems had been installed, impacting more than 12% of the population in Bangladesh.</p> <p>This project was brought about by an integrated approach between IDCOL (a private sector stakeholder) and international stakeholders via the World Bank's Rural Electrification and Renewable Energy Development project which gave the SHS initiative in Bangladesh funding initially.</p> <p>The microfinance sector was strategically vital for this project – The SHS was set up with pre-existing local micro-finance</p>	<p>While research into the number of jobs created, is available, to date it does not seem that there is much research or available data on the 'decent' nature of this work (whether these are direct jobs created through SHS or whether the energy produced could be used for productive uses) other than the creation of productive work opportunities. The government of Bangladesh does have a decent work framework in place so it would be interesting to assess whether this has been mainstreamed into SHS support.</p> <p>The ILO has also done some work with the SHS initiative to increase decent work within the sector. Specifically around training for those working on installation and manufacturing on SHS around Occupational Safety and Health (OSH) and Labour Standards.</p>	<p>Job creation in the solar renewable energy sector falls directly into 'green job' creation.</p> <p>Before SHS, kerosene lamps were commonly used for domestic lighting in rural Bangladesh which are expensive, provide poor illumination and produce emissions that affect health. The SHS has so far saved consumption of 1.14 million tons of kerosene worth USD411 million approximately, which demonstrates the strong environmental (and economic) affects of this overall initiative.</p>	<p>The Bright Green Energy Foundation (organisation committed to renewable energy in Bangladesh) was an important stakeholder in the development of this project and Bangladesh's solar sector generally. The foundation has a focus on both women and marginalised rural areas. Through introducing Green Technology Centres, Bangladeshi women in rural areas have been trained to be green technicians equipped to sell services and provide product support to the rural household who uses renewable energy technology. The Foundation has also offered scholarships to train women to become self-employed. Dipal Chandra Barua, head of the Foundation in Bangladesh said that an important factor in the success of the programme was effective after sales, repair and maintenance network, involving local women as technicians to repair and</p>	<p>By 2013 114,000 people were employed in the renewable energy sector in Bangladesh (More up to date figures are not available). Initially, batteries were the only component produced in Bangladesh and sold as part of an SHS. However, gradually all components (including solar panels) began to be produced locally. This contributed to the growth of the renewable energy market in Bangladesh as a whole. The lack of available baseline data means that it is hard to indicate the overall growth of the sector.</p> <p>The presence of the thriving microfinance sector was central in this programme. However, there isn't any analysis on strategic design issues on the duality of the finance and solar sector coming together with government in Bangladesh in this example. Further, given the critique and risks of microfinance more broadly<sup>135</sup> it would be important that research in the future assess this in relation to the SHS project.</p> <p><i>Government support</i></p>	<p>As indicated in the Sectors section of this report, renewables are an area of strong transformational potential if job creation is focussed here. The scale of transformation of this project is clear - by 2017, 4.12 million SHS systems had been installed. Bangladesh has now installed 5 million SHSs in the rural off grid areas which is the largest programme in the world.</p> <p><i>Broader social impact</i> Research<sup>136</sup> found that the installation of an SHS improved the comfort and living standard of rural dwellers. Easier access to TV, radio, cellphone, and the Internet helped the rural population become part of a more global culture.</p> <p><i>Economic benefits</i> The economic benefits of this project, like the RE sector as a whole, extends beyond the direct and indirect jobs that are created. Importantly, energy can be used for other productive uses. In one study it was found that 71% of householders considered SHS</p>

<sup>134</sup> (Centre for Public Impact, 2017; Head of the Bright Green Energy Foundation, 2018; ILO, 2012; Kabir, et al., 2017)

<p>lenders as the main promoters of SHS. The presence of these local lenders allowed for cost-effective methods of financing for marginalised economic actors and their familiarity to rural consumers led to greater trust in the project and resulted in a larger uptake of SHS.</p>			<p>assemble solar accessories in their communities</p> <p><i>Who benefits</i> It would be important to look in more detail at the type of jobs that have been created (direct, indirect and through having access to energy for productive uses) and at who has benefitted and how through this project (to get a full understanding of whether these jobs are accessible to marginalised economic actors). It would also be interesting to understand the current nature and scale of local manufacturing.</p>	<p>The Bangladeshi government has provided enabling environment for this sector, and SHS's in particular to flourish through its commitment to universal electrification. This encompassed a broad range of policies, not just the SHS initiative. The government prepared the market for the SHS project by eliminating import duties on SHS in April 2000. Local manufacturing received additional support from the government, and as local manufacturing improved, the government decided to evaluate the introduction of a 10% import duty on solar panels for the fiscal budget of 2017/2018.</p>	<p>economically beneficial (including for starting new enterprises or keeping existing enterprises open longer because of lighting)..<sup>137</sup></p>
<p><b>4. The Going Green initiative in India's textile sector</b></p>	<p><b>Aspect of work that indicate it is 'decent'</b></p>	<p><b>Green, greener transition and outcomes</b></p>	<p><b>Participation of informal, marginalised actors</b></p>	<p><b>Key evidence, limitations or enabling factors</b></p>	<p><b>Transformation potential</b></p>
<p>The <b>textile sector</b> is critical to the Indian economy - it contributes 14% to industrial production, 4% to GDP, and 17% to export earnings. However, this sector creates a high negative environmental impact such as degradation and depletion of natural resources and the use of toxic chemicals/processes leading to pollution and health problems.</p>	<p>This project had a strong decent work focus. It led to increased bargaining power for textile-based SMEs and artisans at the national level.</p> <p>The project created 600 new jobs in Varanasi and 700 in Udaipur. It also introduced health and safety risk reduction measures in SMEs along with supporting</p>	<p>While the textile sector itself has negative environmental outcomes overall, this project is a good example of a way that a sector's way of working could be 'greened' with the right interventions and support.</p> <p>There are strong green credentials to this project. "Going Green" aims to build</p>	<p>The textile sector in India is a gendered sector with women being the predominant employees. Focussing here therefore has gendered outcomes.</p> <p>Further women were the key stakeholders in the planning stages of the project with small groups of women</p>	<p>Through collective association, 2918 artisans from all clusters now have access to social entitlements in the form of identity card, health insurance, and financial access through banking institutions.</p> <p>Overall, 575 collectives have been formed in six clusters. 'Community Resource Persons' help in identifying challenges</p>	<p>The explicit focus on both decent and green outcomes in this project is one of the major strengths of this project leading to more transformational outcomes.</p> <p><i>Wider economic outcomes:</i> In later stages, Going Green led to broader development of the local economy, bringing together leading designers in</p>

<sup>135</sup> See Think Small 2 (CAFOD, 2013)

<sup>136</sup> (Kabir, et al., 2017)

<sup>137</sup> (Kabir, et al., 2017)

<p>There is a lack of support, resources and incentives in the textile industry especially for the small and medium sized enterprises (SMEs) to implement eco-friendly solutions to address these issues. Launched in 2014 and led by Traidcraft Exchange in partnership with the All India Artisans and Craftworkers Welfare Association, the <b>'Going Green'</b><sup>138</sup> initiative in India's textile sector demonstrated green trade policies and value chain development along with collective bargaining for better pay and conditions. It has focussed on building green production systems and green businesses in the Indian textile industry.</p> <p>This project was funded by the Switch Asia initiative.</p>	<p>artisans to access national social protection (see 5<sup>th</sup> column)</p> <p>The project also led to worker's incomes meeting (&amp; exceeding) the national minimum wage with daily income increasing from INR 150 to INR 300 in Varanasi (the daily average wage is around INR 272). The National Floor Level of Minimum Wage in India is currently INR 176 per day with the living wage at approximately INR 336 per day (INR 11,000 per month)</p>	<p>sustainable businesses of textile artisans and improve their working conditions through efficient eco-friendly processes, access to resources and supporting increased demand for 'green' products. The project implements various measures to reduce damage to the environment, such as the use of azo-free dyes and the use of textile waste to produce products.</p>	<p>coming together to define its scope and specifically discuss what possible skills they could acquire. From these discussions they narrowed down their focus into green products hand made with textile waste e.g. bags, personal and home accessories</p>	<p>faced by the community, and in running the collectives and building awareness e.g. The Varanasi Weavers and Artisans Society which was registered in Varanasi in December 2015 has been successful in negotiating for better wages through improved bargaining power of the collectives.</p> <p>Some impact assessment work, beyond project level reporting on numbers of people involved on this initiative to assess the decent and green aspects of the job creation is needed.</p>	<p>India to work with weaver members of the federation and identify potential buyers from international markets to expand the project.</p>
<p><b>5. SEWA and <i>agariya</i> salt mining in India</b></p>	<p><b>Aspect of work that indicate it is 'decent'</b></p>	<p><b>Green, greener transition and outcomes</b></p>	<p><b>Participation of informal, marginalised actors</b></p>	<p><b>Key evidence, limitations or enabling factors</b></p>	<p><b>Transformation potential</b></p>
<p>Today, India is the third largest producer of salt in the world, with 77% of its production in an area known as the Little Rann of Kutch (LRK). The salt production process is initiated by digging wells to access brine water. The majority of the <i>agariyas</i> (salt farmers) here</p>	<p>This and many other examples of SEWA's work over the years is an example of attempting to create more decent work opportunities for informal actors. The emphasis of the project has been on</p>	<p>Access to pumps powered by renewable energy allowed for a greening of this sector. It is an example of using renewable energy, solar power in this case, for</p>	<p>The target of this project were marginalised farmers (i.e. working informally) trapped in extreme poverty in remote villages. The vehicle set up by SEWA to deliver the solar pumps was run with the help of a special</p>	<p>SEWA's initial survey data revealed a host of problems around cost, poor quality equipment, a lack of productivity and a lack of education which led to low returns for the farmers. There was also low awareness of technology or</p>	<p><i>Broader social impact:</i> The increase in income because of this project has helped <i>agariyas</i> to support their children's education and pursue additional income-generating activities such as small flour-mills and cattle.</p>

<sup>138</sup> Building green production systems and green businesses in the Indian textile industry, Impact Sheet, Switch Asia Project, 'Going Green', Switch Asia Network Facility. See [https://www.switch-asia.eu/fileadmin/user\\_upload/Publications/2017/Going\\_Green/Switch\\_Asia\\_Impact\\_Sheet\\_-\\_2016\\_-\\_GoingGreen.pdf](https://www.switch-asia.eu/fileadmin/user_upload/Publications/2017/Going_Green/Switch_Asia_Impact_Sheet_-_2016_-_GoingGreen.pdf)

<p>use inefficient water pumps powered by expensive diesel, available at lengthy distances. Diesel fuel accounts for up to 40% of <i>agariyas'</i> annual income. As a result <i>agrariyas</i> spend 30-50% of their limited income on their energy needs. <b>In 2011, the organisation SEWA</b>, the Self Employed Women's Association, <sup>139</sup> <b>began a project to help <i>agariyas</i></b> in the LRK. They provided solar pump-sets on zero-down payment and loans to <i>agariyas</i> which allowed their business model to become sustainable and green.</p> <p>Reema Nanavaty, Head of SEWA, highlighted that they base their projects in areas where an organising network is present to help develop an enabling environment.</p>	<p>productive work and stable income for the <i>agariyas</i>.</p> <p>SEWA also helped the <i>agariyas</i> organize producer cooperatives to bargain for better prices with salt traders and factories. However, financing barriers prevented them from taking this project to scale.</p> <p>To avoid burdening the <i>agariyas</i>, the loan instalments were seasonal, i.e. payable during the salt-production season. These loans were affordable because of the money the farmers saved on diesel, which effectively meant that the pumps paid for themselves by the end of the period.</p>	<p>productive uses in generating income or jobs.</p> <p>SEWA carried out extensive trialling to ensure that the technology used was optimum for users. Hence they were able to offer the best value for money and energy output for increased production overall. For this project, it piloted 10 solar powered pumps using different technologies - different types of solar panels, with and without batteries, standard junction box vs. variable frequency drive, etc. It also understood the cost aspects of these combinations.</p> <p>The switch to solar-powered pumps also aligns with the central government's goals of 24/7 affordable energy access, increased clean energy usage, and contributes towards the National Solar Mission's goals</p> <p>According to National Development Research Corporation and SEWA analysis, if just 1% of the total <i>agariya</i> families in LRK</p>	<p>purpose vehicle Grassroots Trading Network for Women.</p> <p>The pilot project in 2015 gave results on the financial feasibility of different approaches. A hybrid system based on solar PV and diesel can boost net income by 94% by avoiding the need to buy expensive fuel. SEWA's analysis demonstrates that the net income, typically, rose from Rs. 18,000 (\$277) per annum under sole dependence on diesel to Rs. 35,000 (~ \$538) on hybrid use. Once the loan is paid off, their annual net income further increases to Rs. 71,000 ( \$1,092) per pan using a hybrid system.. In addition, <i>agariyas</i> using the hybrid pumps with more reliable fuel supply have also seen an increase salt production per pan, allowing them to earn a higher revenue per pan.</p>	<p>market prices e.g. harmful emissions &amp; high cost of diesel, versus options on clean energy. To test the technical feasibility, SEWA launched a pilot in 2013 with 14 solar pumps and 14 salt farmers. The farmers were given zero interest loans through SEWA's district-level association. The participating <i>agariyas</i>, reliant only on solar systems and using hybrid solar/diesel systems noticed significant expense reduction.</p> <p>A lack of affordable, widely available financing solutions is a major barrier to scaling off-grid renewable energy use amongst low-income households. However, pilot work helped the design of innovative financial solutions that can help overcome this challenge.</p> <p>The project offers learning of a real-world financing model to take similar programs to scale. This project had 3 successful financing measures to reduce the cost and corresponding loan amount for participating <i>agariyas</i>: (1) vendor financing; (2) capital subsidies; and (3) low-cost loans.</p>	<p>This has ensured asset building &amp; ownership, financial inclusion and improved social status for women as providers.</p> <p><i>Broader economic benefits:</i> The solar power in this example has allowed farmers in Gujarat to be more enterprising and has also released income that was otherwise used to finance expensive energy options in the absence of solar.</p> <p>SEWA recognised that the take up of solar panels amongst salt farmers was successful because of an initial 1-year period of government subsidies. During the last decade, the cost of solar cells has plummeted from US \$ 100 per watt to US \$1 per watt. Even with this drop in prices, farmers are unable to pay the cost upfront. Turning to what makes an enabling environment, SEWA believes that policy makers need to devise mechanisms to enable credit from lenders to farmers for this equipment that is affordable. The investment needed for solar panels is capital intensive. Therefore, they have worked with public banks to provide loans for the</p>
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<sup>139</sup> This information was gathered from project reporting summaries provided by SEWA staff and an interview with Reema Nanavaty (Nanavaty, 2018)

		<p>shift from diesel water pumps to solar water pumps, it would cut up to 1,490 metric tons of carbon dioxide emission per year. That's equivalent to 3.65 million miles driven by an average passenger vehicle.<sup>140</sup> If half of the total number of <i>agariya</i> families switched to solar pumps and the other half switched to hybrid pumps, it would save a cumulative of 115,000 metric tons of CO<sub>2</sub>. These benefits also extend to the wildlife in LRK, which is located in a protected Sanctuary and Biosphere Reserve for endangered Asiatic wildlife</p>			<p>panels, which can typically be repaid within four years. After initial success, the International Finance Corporation's has now also got involved in financing solar pumps</p> <p>SEWA Bank (an arm of the organisation) has designed a special "energy loan product" that includes solar appliances to improve basic living conditions, increase income and productivity, and reduce expenses. In the absence of traditional collateral, a regular savings record can be developed over the course of a year as security before an individual is eligible to apply for a loan.</p>
<b>6. Sensi-Tech 's LE Plastics recycling project in Sierra Leone</b>	<b>Aspect of work that indicate it is 'decent'</b>	<b>Green, greener transition and outcomes</b>	<b>Participation of informal, marginalised actors</b>	<b>Key evidence, limitations or enabling factors</b>	<b>Transformation potential</b>
<p>Over the last few years, <b>CAFOD partner, Sensi-Tech Hub</b> has been striving to make young people in Sierra Leone better qualified to secure employment and apprenticeships or create sustainable enterprises. Although this is a small local project (and not on the scale of some of the other case studies reported on), Sensi has become a leader in</p>	<p>Sensi Tech Hub created 18 new jobs, by hiring people living on the dumpsite to clean the area, and use recyclable waste. The quality of work opportunities provided was not examined in the project reporting available.</p>	<p>One of the projects, LE Plastics was built on a waste dumpsite. where dozens of families were living on piles of garbage, in unhygienic conditions, with no access to drinkable water and no source of income. The communities have now gone through a transformation through the development of</p>	<p>Communities living on the dumpsite were severely marginalised. Feedback from Sensi has found that families are able to sustain themselves whilst working in a sustainable business.</p>	<p>More information is needed on how these jobs are decent and green. This is currently unavailable.</p>	<p>As this is a very small project, there was no information available on its scalability.</p>

<sup>140</sup> US EPA. 2017. *Clean Energy Resources Calculator*. Available at: <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator> (accessed on 20 August 2018).

<p>driving local innovation, business incubation and idea sharing. This has been through 3 projects, one of which is a plastic recycling <b>project (LE Plastics)</b><sup>141</sup>, reported on here. A major challenge that they are faced with is the lack of proper technical infrastructure, which translates into poor internet connectivity with no network at all at times. Regular and reliable energy supply in the office is also a challenge</p>		<p>their environment and livelihood.</p>			
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<sup>141</sup> This information was gathered from project level summaries sent by Morris Marah, the project co-ordinator.



## Section 3: How to tackle the challenge of encouraging transformative job creation

In this section, we draw together four lessons that have emerged through this research. These highlight how policymakers and practitioners can use findings to develop appropriate funding, programming and interventions to inspire a stronger shift to decent and green outcomes. First of all, we established that manufacturing based on historical pathways are not going to be reproducible in the current context – especially if we look at current and future trends which will define the world of work. Marginalised economic actors need to become participants in the economy and able to access jobs – but not under any conditions. An important focus for jobs strategies would be to look for opportunities for sustainable jobs and decent and green work that addresses how far people have been left behind. Subsequently, from a review of five sectors, this research clearly demonstrates the need for jobs strategies to be as broad and contextual to the economies of developing countries. Governments and policymakers should seize the opportunities to create more jobs and improve many existing ones in the process of greening.

For funding and programming, greening outcomes with decent jobs could be seen as a way of prioritising and focussing interventions. We argue that this is one of the most useful ways in which overseas development aid can be used to act as a lever for going beyond normal livelihood or economic development models to a much more progressive focus on green or greener outcomes along with a hardwired approach to ‘decent’.

### ***Lesson 1: Decent, green jobs have the ability to be transformational***

This research has found that jobs that are decent and green also have, in some settings, the ability to be transformational in people’s lives, socially, culturally and economically. Such outcomes require careful planning for, and clear objectives. Policy makers and programmers need to use limited resources to maximise development goals through jobs strategies. This requires stepping outside of traditional silos and purposefully responding to the employment crisis in a more integrated way. In the interventions analysed which had the most transformational outcomes, key was the desire to catalyse change that are valuable for the common good whilst also providing solid employment outcomes like a fair wage and working conditions. The Zambia Green Jobs programme for example was successfully able to leverage employment creation, greening outcomes, civil society participation and meeting housing needs through looking beyond solely job creation.

More needs to be done to understand what was needed at the policy design stage of such interventions to bring this about including how such planning was convened and facilitated and what factors led to such integrated approaches. Importantly, it’s not just about the economic case, a transformational jobs strategy would also ensure environmental sustainability and broader environmental benefits, together with changes in the existing social structures and relations which lock people into disadvantage and constrain their agency and choices.<sup>142</sup>

Whilst all sectors we reviewed carry transformational potential, waste management and the recycling sector, agriculture and the public transportation sector are all worth exploring more as this is where large number are marginalised economic actors are already situated as either own-account workers, users of services or being exploited as workers.

In all of the case studies, (see Table 1) wider social, economic or environmental outcomes were not specifically planned or measured and so in many ways are ‘happy accidents’ of decent and green job

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<sup>142</sup> Drawn from UNRISD, 2017

[http://www.unrisd.org/80256B42004CCC77/\(httpInfoFiles\)/60FCBDD8C641F3D2C125804F0032FFDF/\\$file/Flagship2016\\_Overview.pdf](http://www.unrisd.org/80256B42004CCC77/(httpInfoFiles)/60FCBDD8C641F3D2C125804F0032FFDF/$file/Flagship2016_Overview.pdf)

creation. While this highlights the transformational potential that decent and green jobs could have, it also highlights the further potential that could be possible if these outcomes were planned and measured. Across the case studies, there were many indications that target beneficiaries were empowered through the projects that they participated in although, there lacked any baseline tracking of participants' starting point, which made it hard to determine any impact that taking part in a project had on livelihoods. In the case of exploring how to scale up work, only SEWA in the case of salt farmers in India had carried out detailed work to look at differing scenarios and how to develop work based on affordability structures that can raise income levels. The role of different development actors in complementary sectors working alongside each other was also highlighted. Many stakeholders spoke about bringing holistic concepts into currency by talking about decent and green issues at the right level of government policymaking in their own national contexts, building movements and making links between different policy areas – for example, urban infrastructure, transport and job creation.

In fact, in all of the interventions with the most transformational outcomes, this issue of working outside of traditional silos was key towards catalysing broader dimensions of change that are valuable for the common good. Thinking in this systemic way would allow policy makers and programmers to use limited resources to leverage far broader results. For example, the case of an ILO project in Zambia shows the possibility that strong linkages between the construction sector and the renewable energy sector (specifically solar panels in new homes) can have. When coupled with targeting women to become trained as fitters of the panels, the social transformation possible is even broader.

Our research has also highlighted that the right conditions are needed to enable transformative effects to be unleashed. These all vary but include initial investments and the availability of appropriate forms of development finance, and training to develop the skills needed for the types of jobs created especially where specific green techniques are needed.

## ***Lesson 2: Plan decent, green outcomes from the start***

Decent and green work does not happen automatically; the creation of more jobs does not inevitably promote better outcomes for the people who are employed or for the planet. Further, no sector or programme intervention automatically catalyses broader transformation. Overall, no sector is inherently socially or environmentally sustainable and able to promote the creation of decent, green jobs and support a transition to a low-carbon economy. All of these outcomes had to be specifically planned for and explicitly worked towards.

The 'grow first, clean-up later' strategy is self-defeating – respondents in this research highlighted that not focussing on greening now could lock countries into sub-optimal and polluting technology which is then costly to transition onwards from. However, this requires the long-term tracking of job creation and the social and environmental impacts of this, and to then relate this at a national level to industrial policy discussions around defining priorities for investment.

A facilitative government focussed on promoting these multiple wins is important. Most of the transformative examples we looked at involved some level of government involvement, either as a partner, funder or provider of the infrastructure for development finance for an initial period. This was key in affordability and enabling the transition. A critical next step is the development of a more robust evidence base on project development and the role of development finance.

Measurement is also important here; we plan for and implement what we know we will be measured against. While there is a growing body of project-level data on decent and green job creation it lacks proper analysis on outcomes both from the decent and green aspects. Studies looking at failure and the reasons for this are equally important here. Collecting such data and developing appropriate indicators and reporting frameworks would also help us know which sectors are going to offer most opportunities for jobs that are going to be accessible to marginalised economic actors. The financial viability of approaches especially in the case where target groups needed finance to buy technology or infrastructure emerged as an important issue. Innovations at the wider, commercial scale, which can often be useful to marginalised groups (e.g. mobile phone cash transfers, small-scale power

generation) are often inaccessible because of the thresholds e.g. required capital, a stable address. A critical next step is the development of a more robust evidence base on getting projects off the ground and the role of development finance.

### ***Lesson 3: Jobs strategies must focus on marginalised people and start by understanding context***

Our research highlighted that jobs will not automatically be accessible to marginalised economic actors; a 'leave no-one behind' approach to jobs strategies requires specific planning, analysis, inclusion and targeting to understand development needs and context.

The case studies we looked at confirmed literature review findings,<sup>143</sup> highlighting the need for jobs strategies to start by understanding (and mapping) the local context, labour market and economy. Key questions for policy makers and programmers to analyse would be (1) what are the sectors that people are currently in (2) of these, which hold the greatest risks in terms of decent work deficits and degrading the environment and therefore need to be prioritised for intervention and (3) which of these hold the greatest potential for achieving broader transformation?

There are certain sectors or particular interventions which can be good at achieving these multiple benefits, especially if decent and green work are defined as specific objectives. But exactly which sectors these are will depend on context. As most marginalised economic actors today are working on an informal basis, and many are to be found in the agricultural sector, these are areas which it may be useful to consider further in jobs strategies.

The informal economy is large, growing and permeant for the foreseeable future. Its absence from economic development planning was indicated in the case studies we analysed in this report; in all the cases that we looked, even where decent and green jobs were prioritised, informality and the particular risks and realities within this were generally insufficiently analysed or even considered e.g. whether job creation efforts sought to reinforce and create structures to allow to preserve cultural informality, or whether from conception, jobs that were created were conceived as formal.

The ILO, together with many informal worker groups also note that formalisation of the informal sector, under the right conditions (outlined in ILO Recommendation 204) is central to better decent work outcomes. Further exploration of how policymakers and practitioners take up the challenge of Recommendation 204 from the ILO to facilitate the transition of workers and economic units from the informal to the formal economy, while respecting workers' fundamental rights and ensuring opportunities for income security, livelihoods and entrepreneurship is needed.

### ***Lesson 4: Enabling collective action and dialogue yields better outcomes***

The case studies considered in this paper together with the lessons from our programmes highlight the importance of collective action. Strategies and programmes therefore need to include and build platforms for collective action (including for unions, informal worker organisations, cooperatives) in achieving better outcomes. This includes shaping the way in which job creation manifests in developing countries for marginalised economic or informal actors. A sharing of best practice ideas, in how unions seek to improve the working conditions of marginalised economic actors, especially those working informally, would be useful. In the case of India, hybrid organisations like SEWA and facilitative initiatives like the Going Green project in the textile industry shows how collective movements can help to develop notions of what decent work is and help groups to advocate for change.

This suggests that for donors, without hearing and critically responding to what people want and need we are likely to miss the mark in jobs and to optimise programming.

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<sup>143</sup> (CAFOD & Christian Aid, 2017)

### ***Recommendations for action***

1. **Promote, plan for and then measure transformational decent and green outcomes in programming, policies and funding.** More work pioneering how to measure decent and green outcomes is crucial to help the sector to start to understand programming work in this area. To generate learning and guide future decisions, progress must then be measured against these integrated targets. This will require **developing principles, approaches and indicators** to support and promote this integrated and transformative decent, green work agenda.
2. **Give political priority to integrating social and environmental sustainability, including on climate change, in any work on jobs and economic development.** Multi-lateral agencies and experts around the world have argued that there is no longer the time nor resources to separate a response to the social and environmental challenges we face. Ensuring green *and* decent jobs requires strategic thinking around ensuring that interventions (by a government, business or other actors) do not undermine environmental sustainability and respect for human rights, including labour rights, and that poor groups are not negatively impacted in any low carbon shift. It also requires explicitly thinking through how resilient the jobs being created will be in practice.
3. **National initiatives on job creation should be integrated, particularly with marginalised local economic actors:** We need more work on looking at policymakers' intentions and plans under SDG Goal 8. There should be a pooling of initiatives into coherent national strategies, with mutually reinforcing policy objectives with a focus on the decent work pillars; issues of participation, social dialogue and collective action. This includes talking with marginalised local economic actors, particularly those working informally who make up the majority of the labour force in many developing countries, as well as learning from the existing lessons and experience on decent work.
4. **Commission further research on decent, green jobs.** Decent and green work is essential for achieving economic gains along with commitments under the SDGs and Paris Agreements, but there are blockages and enablers to this agenda that we need to understand in order to take it forward. While there are valuable experiences and tools that we can already draw on, additional research around this, looking in more detail at how implementation is happening, will be key to driving the agenda forward. Decent and green job creation for marginalised economic actors should become an interdisciplinary area of research. More guidance on best practice from existing programming would be very beneficial. There also needs to be more research on the comparative costs between green-brown policies.

## Appendices

### Annex 1: Analytical Framework

Analytical framework used in our analysis for assessing transformative, decent and green jobs that are accessible to marginalised people.	
(1) Decent and green potential <sup>144</sup>	There are four pillars to Decent Work; access to full and productive employment, rights at work, social protection and the promotion of social dialogue. Notions of green jobs build on this initial framing and includes all decent jobs that contribute to preserving or restoring the environment. Decent and Green work is a way of working – no sector is inherently green and or decent, instead steps towards greening and decent work are important and possible in a variety of contexts and sectors including traditional sectors (i.e. manufacturing and construction) or new, emerging sectors (i.e. renewable energy and energy efficiency). Some sectors are inherently high carbon-producers and do not support a transition to a low-carbon economy. Here a Just Transition is needed. We are not willing to accept trade-offs between decent and green, and in this paper, we show that both can be achievable.
(2) Marginalised economic actors (particularly women and those working informally)	People who struggle to participate in the economy because of their marginalised status (based on gender, age, disability or poverty for example) and people who are working but still poor or people who have no agency, voice or power in decision making about the economy or their work within it.
(3) Transformative effect	A change or intervention which has the ability to catalyse greater social, environmental and economic justice and creates co-benefits between the three. This includes changes in <u>economic</u> structures to promote employment-intensive growth patterns, changes to ensure <u>environmental</u> sustainability, including profound changes in production and consumption patterns through policy and changes in <u>social</u> structures and relations which lock people into disadvantage and constrain their agency and choices (including addressing the growing economic and political power of elites, patterns of stratification related to class, gender, ethnicity, religion or location and unjust institutions or norms, both formal and informal which shape behaviours) <sup>145</sup>
(4) Volume of jobs / job creation potential	Where there exists potential to replicate and scale up projects to create significant numbers of jobs. This includes looking at the facilitative factors that are key here, for example other sectors that are critical and the role that they play, particularly from an investment perspective.
(5) Focus on Africa and South Asia	These two regions dominate the head-count for poverty globally. Population projections show huge actual and projected growth in the working age populations across Africa and in particular in India too. There are rising concerns about the capacity to generate enough jobs to absorb the rapidly expanding labour force.

<sup>144</sup> In defining 'decent and green jobs', the ILO have provided a robust and comprehensive definition. Our definition here and expanded in Annex 3 and our analytical framework (annex 3) draws on their work. There are a number of indicators within this definition which are further explored in Annex 3 (ILO, n.d.; ILO, 2016)

<sup>145</sup> (UNRISD, 2016)

## ***Annex 2: Interviewees***

1. Lucia Fernandez, WIEGO
2. Peter Poschen, Professor, University of Freiburg; formerly ILO
3. Gopinath Parakuni, Cividep
4. Alana Dave, IFC
5. Reema Nanavaty, SEWA
6. Alejandro Guarin, IIED
7. Joy Green, Forum for the Future
8. Simon Trace, consultant
9. Urvashi Aneja, Tandem Research
10. Patrick Schroeder, IDS
11. Anna Lau, Consultant
12. Carlos Oya, SOAS
13. Hilma Mote, ITUC
14. Dipal Chandra Barua, Bright Green Energy Foundation

### ***Annex 3: What are decent and green jobs?***

The ILO has done extensive work on decent and green jobs. Their work on the Decent Work Agenda has a long history, with the work on Green Jobs coming more recently but very much rooted in their existing work around and prioritisation of the decent jobs agenda. Their definitions on these two concepts are established through their tri-partisan approach which brings together the views and perspectives of governments, employers and trade unions. It is for this reason that we draw on their expertise for our definition and understanding of green jobs:

The Decent Work Agenda is made up of 4 pillars; access to full and productive employment, rights at work, social protection and the promotion of social dialogue with gender equality as a crosscutting objective.<sup>146</sup>

“Decent work sums up the aspirations of people in their working lives. It involves opportunities for work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men.”<sup>147</sup>

In order to measure decent work, the ILO have developed 11 indicators (which each help to measure aspects of the 4 pillars of the agenda)<sup>148</sup> ILO 2002 details these indicators and the rationale behind them in great detail. In summary:

1. Employment opportunities for all who are available for and seeking work.
2. Unacceptable work must be excluded from indicators of employment opportunities. This includes forced labour and child labour (especially hazardous and other worst forms of child labour).
3. Adequate earnings and productive work including access to a living wage and access to training to be able to improve future work and income.
4. Decent hours: here, excessive or atypical hours can be detrimental to health and they impede balance between work and family life (see indicator 6). Excessive hours are frequently a signal of inadequate hourly pay while short hours can indicate inadequate employment opportunities.
5. Stability and security of work including security and permanence of contract
6. Combining work and family life including (1) job protection if a worker needs to be absent from work for major family events, such as maternity or child care; (2) monetary benefits in the event of these events; and (3) day-to-day accommodation of worker’s need to integrate their work and family lives, such as flexible hours and adequate child care.
7. Fair treatment in employment including equality of opportunity in employment and occupation, and equal pay for work of equal value
8. Safe work environment: safety and health at work is about conditions that preserve and promote the physical and psychological integrity of the worker
9. Social protection: The Social Security (Minimum Standards) Convention, 1952 (No.102) established nine classes of benefits: medical care, sickness benefit, unemployment benefit, old-age benefit, employment injury benefit, family benefit, maternity benefit, invalidity benefit and survivors’ benefit.
10. Social dialogue and workplace relations includes the extent to which workers can express themselves on work-related matters and participate in defining their working conditions. It includes the ability of workers to organise freely to defend their interests collectively in negotiations with the employer.
11. Economic and social context of decent work: Three aspects of the context are considered here: (i) socio-economic context which may condition or affect the sustainability of decent work; (ii) socio-economic performance that the achievement of decent work might affect; (iii) aspects of employment composition that are needed to measure some decent work indicators.

In this report we don’t look specifically at this full list when analysing the sectors and case studies, but these elements have guided our thinking and provided some structure for commenting on the quality of work being created.

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<sup>146</sup> (ILO, n.d.).

<sup>147</sup> (ILO, n.d. - b)

<sup>148</sup> (ILO, 2008; Anker, et al., 2002)

Green jobs take the idea of decent work one step further.

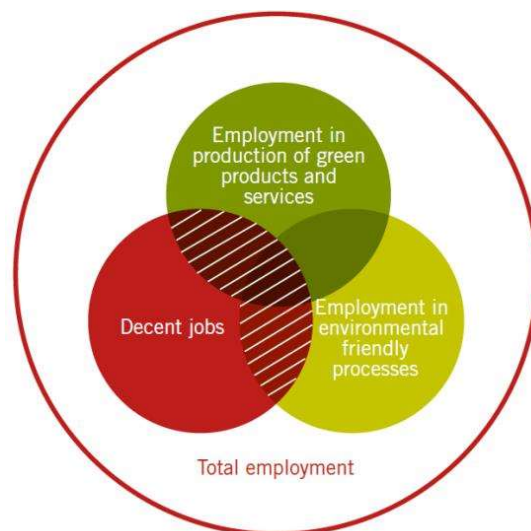
Green jobs are decent jobs that contribute to preserve or restore the environment, be they in traditional sectors such as manufacturing and construction, or in new, emerging green sectors such as renewable energy and energy efficiency.<sup>149</sup>

In practice this means that green jobs will:

- Improve energy and raw materials efficiency
- Limit greenhouse gas emissions
- Minimize waste and pollution
- Protect and restore ecosystems
- Support adaptation to the effects of climate change<sup>150</sup>

“At the enterprise level, green jobs can produce goods or provide services that benefit the environment, for example green buildings or clean transportation. However, these green outputs (products and services) are not always based on green production processes and technologies. Hence green jobs can also be distinguished by their contribution to more environmentally friendly processes. For example, green jobs can reduce water consumption or improve recycling systems. Yet, green jobs defined through production processes do not necessarily produce environmental goods or services.

As illustrated by the diagram below, a distinction can thus be drawn between employment in green economic sectors from an output perspective and job functions in all sectors from an environmentally friendly process perspective. For the ILO, green jobs are all those jobs that fall in the dashed area.”<sup>151</sup>



For more information see: [http://www.ilo.org/global/topics/green-jobs/news/WCMS\\_220248/lang--en/index.htm](http://www.ilo.org/global/topics/green-jobs/news/WCMS_220248/lang--en/index.htm)

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<sup>149</sup> (ILO, 2016)

<sup>150</sup> (ILO, 2016)

<sup>151</sup> (ILO, 2016)



## **Annex 4: current trends and realities which will impact the world of work**

As we think about the future of work we need to make sure that any jobs strategy is pragmatic and responds sufficiently to the trends and realities we are currently facing including:

- **Entrenched (and growing) unemployment, underemployment and working poverty:** 201 million people globally are unemployed. 5.6% or 75 million of these are currently youth; given the youth bulge (see the point below) and the 45 million per year young job seekers that are due to join the labour force, this is likely to rise in a number of African countries. 776 million people are working but poor.<sup>152</sup> 1.4 billion people globally are vulnerably employed and 5.2 billion people have no social security.<sup>153</sup> Taken together this suggests that while job creation is an urgent requirement to tackle the unemployment challenge, this alone is insufficient to tackle the real crisis faced by most people in low-income countries: underemployment and working poverty.
- **Huge demographic shifts:** a continuously growing and urbanising population with most growth in Africa and south Asia, with a youth bulge and an aging population at the same time. This presents both challenges and opportunities. Job strategies will therefore need to explicitly consider youth, address possible skills shortages and consider specific sectors such as the care economy for older people.
- **Most people work informally:** informal work is increasing, not disappearing, in both low and high-income countries. Globally, 2 billion people are employed in the informal economy (more than 61% of the world's employed population) with 93% of the world's informal employment found in emerging and developing economies.<sup>154</sup> Informal employment sits at 86% in Africa (92% if just considering West, Central and Eastern Africa and excluding North and Southern Africa where outliers push the average down) and 88% in South Asia. Out of the two billion workers in informal employment worldwide, just over 740 million are women and women are particularly disproportionately represented in the world's poorest regions; 88% in Africa (95% in Central and West Africa) and 91% in South Asia<sup>155</sup>. Informality is directly linked to levels of economic development; developed countries experience lower levels of informality (an average of 18%) and emerging and developing countries experience higher levels (an average of 70%). Further countries with the lowest GDP per Capita also have the highest levels of informality. Generally, the poor face the highest rates of informal employment – though there are important variations within this.<sup>156</sup> Informality has also been linked to social development and poverty levels; countries with higher levels of informality consistently have lower Human Development Index (HDI) scores. Evidence from South Africa, a country with a relatively small informal economy compared to the rest of Africa, found that an informal job was as important to a formal job in terms of reducing poverty, and that job creation strategies in this sector are therefore as important for overall poverty alleviation and jobs strategies.<sup>157</sup> Informal work has major decent work deficits; it normally has no social protection, no formal contracts or security of income, salaries are very often below a living wage, and workers have great difficulty or inability in organising. Further, the predominance of informal work is entrenched in the structure of the dual or enclave economy that African countries inherited at independence. Under this type of economy, all economic policy and planning is targeted at the formal sector (which absorbs less than 20% of the labour force in most African countries) with little inclusion of the informal economy. Given these trends in its size, permanence, contribution, links to socio-economic development and the historic dual nature of economic planning the informal economy cannot be ignored in jobs strategies moving forward. A pragmatic response to this economy is needed. Strategies will need to ensure that approaches to economic transformation and private sector

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<sup>152</sup> (ILO, 2017)

<sup>153</sup> Presentation by Peter Poschen (2017) drawing on data from ILO (2014; 2014b; 2016; 2017)7

<sup>154</sup> (ILO, 2018b)

<sup>155</sup> (ILO, 2018b)

<sup>156</sup> (ILO, 2018b, p. 48)

<sup>157</sup> (Rogan & Cicello, 2017)

development don't further entrench the dual economy that is so prevalent across Africa and south-Asia.

- **Multiple livelihood models:** Many individuals and families have multiple strategies to earn income involving a combination of subsistence agriculture, seasonal waged work, and periodic work in other areas. This points to a strong need to pay more attention to the quality of work in the informal sector, rather than just pushing for a transitioning to formal sector waged jobs.
- **Women's labour market participation and unpaid work:** Globally, women face specific challenges in their job prospects including higher rates of unemployment, lower rates of labour force participation, lower paying work and higher rates of informal work. The United Nations<sup>158</sup> reports that globally women are predominantly found to be in vulnerable work (precarious or insecure, or both), and contributory family work like child rearing, cleaning and cooking, especially in Africa and Asia and with a lack of welfare services which could remove this additional work pressure, a lack of proximity to labour markets is compounded. Gender inequality in the marketplace is not just down to individual choices on the part of men and women regarding the use of their time. Rather, it is structured into market forces by hardwired discriminatory practices and inequality.<sup>159</sup> Adding to this, the intersection of 'identity categories' (e.g. caste and religion) alongside gender can lead to further marginalisation for women.<sup>160</sup> These factors impact directly on job creation strategies of the future. Strategies need to consider not just inclusion of women but also what women's engagement in work means for their unpaid care provided in the home.
- **Climate change, environmental crisis and stressed ecosystems:** current and future impacts of climate change and extreme weather conditions have led to a global agreement on the necessity to keep a rise in global temperatures to below 1.5C. This "climate crisis also connects in powerful ways with many other environmental concerns such as water availability and biodiversity."<sup>161</sup> Resource (over)use has resulted in mounting pressure on ecosystems (from deforestation and degradation of tropical rainforests and overfishing to ubiquitous plastics pollution and declining soil fertility) which together further undermine biodiversity and essential life-giving activities such as food-production. It has been shown that 'the GDP of the poor' is disproportionately derived from and dependent on environmental goods and services (See TEEB). If nature's ability to provide them is undermined the poor stand to suffer the earliest and the most. A shift to a low-carbon green economy is therefore essential also in developing and emerging economies. Fortunately, greener economies can create more and better jobs than the conventional development path. Issues of inclusivity and a Just Transition<sup>162</sup> are also important to consider so that marginalised groups can benefit from this transition and so that some of the issues mentioned above (e.g. a dual economy or underemployment) are not further entrenched.
- **Automation of tasks and disruptive innovation:** Automation is on the rise. While the full implications of this on employment are not known, this could displace low-skilled work in most factories around the world with fewer formal jobs being available to people. This means that people will need reliable forms of social protection. Disruptive innovation<sup>163</sup> is also on the rise, radically changing ways of working within certain sectors. There are also emerging examples of inclusive innovation which involves poor or marginalised groups in developing meaningful livelihood strategies, not just as consumers but also as producers.<sup>164</sup> Jobs strategies need to think through ways to support and create an enabling environment for such innovation – particularly inclusive innovation. Issues of support for decent work are particularly important to consider for new and emerging businesses where this often is not a priority. Incentives and

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<sup>158</sup> 2010

<sup>159</sup> (Kabeer, 2012)

<sup>160</sup> (Walby, et al., 2012)

<sup>161</sup> (Poschen, 2015)

<sup>162</sup> (ITUC, 2017)

<sup>163</sup> Products, processes or functional ideas that are new to producers, sectors, countries or the world and fundamentally disrupt the status quo

<sup>164</sup> Drawn from a literature review by Trace (2017) which contains a chapter looking at what innovation and particularly informal innovation is.

support for inclusive innovation in green or circular economy sectors would be particularly important to encourage the desired transition.

- **The jobs people want:** There is growing evidence that low-skilled factory jobs are not the jobs they want to be doing and that any job creation that happens here is likely to have short-term benefits for individuals who chose not to stay in this type of work over the longer term.<sup>165</sup> This is especially the case where decent work is not assured. This is an important consideration for governments and donors wishing to pursue a strategy of economic transformation. It is a factor which needs to be considered in the creation of industrial development zones which are normally known for the incentives and support they give to companies – often at the expense of labour protection.
- **Energy system transformation:** the need for the transition from inefficient, fossil fuel systems to efficient and renewable systems is growing in importance and recognition. With wind, solar, biomass and battery technology advancing so quickly there is a growing consensus that affordable and clean energy access could be solved for hundreds of millions of people. This is an example of a truly transformational sector which could catalyse multiple benefits, social, economic and environmental for national economies and local communities. Job strategies will need to keep pace with these transitions analysing where they will create jobs directly (for example in-sector job-creation in renewable energy or energy efficiency), downstream (such as higher value-added products and new services) and indirectly (through jobs created in other sectors through access to modern energy). Overall there is both the need and potential to shift to low carbon power generation, both through central grids and through smaller-scale local grids based on renewable energy (which have great potential especially in terms of providing energy access for those living remotely without modern energy access). There is also a need to look for ways to support and incentivise innovation in this sector and ensuring decent work outcomes are prioritised and supported.
- **A distributed circular economy:** Opportunities for the circular economy are growing with clear environmental benefits from such a closed-loop, circular business model, and growing evidence of economic,<sup>166</sup> health, employment and environmental benefits<sup>167</sup> from such an approach (including for low & middle-income countries<sup>168</sup>). Companies around the world are also showing the benefits to their bottom-line by transitioning their business models to such an approach. Job strategies need to incentivise and support this approach, considering ways that manufacturing in the future could be hyper-local, using waste as a resource to create new products. They need to consider where this will lead to job creation or to job destruction and the implications this could have on the services sector which is likely to dominate markets everywhere.

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<sup>165</sup> (Blattman & Dercon, 2017)

<sup>166</sup> (World Economic Forum; Ellen MacArthur Foundation & McKinsey & Company, 2014)

<sup>167</sup> (Williams, et al., 2018)

<sup>168</sup> (Gobbo Fernandes, 2016)

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