International Labour Organization

Green Jobs in Sri Lanka: Linkages between environmental sustainability and decent work

This publication was first published by the authors under auspices of erstwhile Tandem Research.

Tandem Research is an interdisciplinary research collective generating policy insights at the interface of technology, society, and sustainability. We believe in finding iterative solutions to real world problems through evidence-based enquiry and public engagement.

www.tandemresearch.org

Green Jobs in Sri Lanka: Linkages between environmental sustainability and decent work

---

Green Jobs in Sri Lanka: Linkages between environmental sustainability and decent work

ISBN (Web PDF): 9789220322918

This publication was written by Vikrom Mathur and Zaheb Ahmad of Tandem Research, for ILO Country Office for Sri Lanka and the Maldives.

Layout Design: Shubham Bhattacharya, Chandika Gupta

Printed in Sri Lanka

Acknowledgements

We would like to thank Simrin Singh, Balasingham Skanthakumar, Chamila Weerathunghe and Sriyani Mudiyanselage from the ILO Country Office for Sri Lanka for their knowledge and help in facilitating research for this Issue Paper.

Anushka S. Wijesinha provided insights on policies adopted by the Sri Lankan government and trends in the Sri Lankan economy.

We are very grateful to Sabina Dewan and Dr Ravi Fernando for reviewing the paper and providing us with valuable insights.

Table of Contents

Executive Summary

The growing importance of sustainable development, business practises and the shift to a low-carbon green economy are transforming jobs and creating new work opportunities. Economies moving towards green growth can seize this potential for job creation if they can deal effectively with structural change and transformation of existing jobs.

Policies to promote greener products, services and infrastructure could translate into higher demand for labour in a wide range of sectors and activities, and generate entirely new types of jobs through technological innovations that respond to the needs of environmental sustainability. However, a successful transition would only be possible if associated risks—disruption of existing employment patterns and alignment of new work opportunities and skills—are managed well. However, green jobs can't be viewed narrowly as any jobs in sectors of the economy that provide environmental services; green jobs need to meet the twin criteria of decent work and environmental sustainability.

In its pursuit of sustainable development, what sectors could be the primary providers of green jobs for Sri Lanka? What can the government do to prepare for and facilitate the changes that lie ahead? This report identifies sectors that could be the drivers of green job creation in Sri Lanka.

Findings about the opportunities for green jobs in each of the sector have been presented in the form of propositions. These propositions present the plausibility of green job creation, focusing on environmental sustainability and decent work conditions.

Sectoral Propositions

- The growing demand for wellness tourism and ecotourism has significant potential to be one of the drivers of green growth in Sri Lanka, but would require a large number of workers skilled in sustainable practices and management to support the transition.

- The renewable energy sector is globally seen as the sector where a significant number of green jobs could be created. While the transition to renewable energy may be a challenge in the short-run, it offers immense potential for new work opportunities in the long run, provided the Government formulates policies which incentivise the sector.

- The adoption of environmentally-friendly farming practises to address both, climate change-induced extreme weather conditions which are increasingly hampering agricultural supply chains, and the rising global demand for organic and sustainable produce, could create green jobs for the agriculture and plantations sector in Sri Lanka.

- The waste management sector, currently comprised of temporary contract workers, would

need better working conditions and implementation of standards for occupational safety to drive the growth of green jobs.

- Sri Lanka would need to establish fair and non-exploitative work conditions and environmentally-friendly processes in the apparel sector to propel the growth of green jobs within the sector.

- Greening of the Sri Lankan economy could, in turn, create green collar jobs to support environmentally sustainable initiatives across sectors. The creation of such jobs would depend on the extent to which green practices are adopted by other sectors in Sri Lanka.

Policy Pathways

- Addressing Green Skills and Knowledge gaps could boost the creation of green jobs in the future.

- The development of value chains and improved market access could lead to better wages for workers.

- National policies to determine and define green practices, and to drive its adoption as a business objective could increase the demand for green jobs.

- Labour unions could play a key role in improving social protection and in addressing decent work deficits and skill needs, in order to ensure a just transition towards a green economy.

- Creating innovation opportunities for the production and diffusion of new ideas, products, and processes could be fundamental for the transition to a green economy.

Way Forward

For its transition to a green economy, Sri Lanka would need appropriate skills training, education measures and policies, and programmes for skilling and reskilling of workers. Along with skilling needs, a better understanding and implementation of decent work conditions will be needed, especially since decent work deficits are persistent features for many South Asian countries.

1. Introduction

The clamour for governments the world over to consider transitioning to a low-carbon economy and address chronic environmental challenges has grown louder with the increasing consensus on climate change.[1] At the same time, the continuing impact of the global economic downturn has triggered many proposals for a radical re-imagination of conventional models for growth to support fiscal stimuli for green growth.[2] This is reflected, for example, in the outcome document of the UN Conference on Sustainable Development (Rio+20) which urges nations to consider generating jobs that reduce social inequality and promote sustainable use of natural resources.[3]

In Sri Lanka, according to the ILO's report on the Future of Work in the country, consumer awareness is driving the demand for more sustainable products and services—consumers want renewable energy, better waste management, and a personal connection with farmers, growers and artisans. This then provides an opportunity to examine the possibility of creating a space for jobs that will not only be shielded from automation in the short-term but will also support sustainability transitions.[4]

However, green transitions do not always necessarily create new jobs; in many instances, there will be transitions from obsolete means of production to greener ones, and the existing workforce will need to be re-skilled and absorbed through new work opportunities. Securing just transitions for workers through upskilling and absorption will be as critical as creating the workforce for entirely new opportunities. A successful transition would only be possible if associated risks—disruption of existing employment patterns and alignment of new work opportunities and skills—are managed well.

The concept of green jobs, however, is generally understood in a limited sense - as reducing environmental degradation. In the process, the objective of worker's welfare promoted by the idea of 'decent work' is often glossed over. New jobs can be generated from structural transitions to green growth. However, to be classified as green, these new jobs need to also provide decent work – "adequate wages, safe working conditions, job security, reasonable career prospects, and worker rights" [5]. Creating jobs that equally incorporate the objectives of environmental sustainability and decent work may be particularly problematic in developing countries including Sri Lanka. Employment in sectors producing goods and services that have smaller adverse environmental impacts than existing close substitutes are numerous - for example in waste management. While jobs like that of unskilled labour in the waste management sector are growing, they do not provide decent work - they barely provide subsistence wages and are marked by difficult working conditions and a range of occupational hazards.[6]

It is, therefore, critical that the linkages between decent work and environmental sustainability be examined carefully to identify sectors and strategies for supporting both in the Sri Lankan

context. In labour-intensive sectors such as agriculture and plantations, greening existing jobs by adopting environmentally sustainable practises and ensuring fair wages could transform existing work opportunities into green jobs. In services and manufacturing, adopting green practices, standards and innovative technologies geared towards sustainability, reusability and resource-efficiency, could create completely new green jobs. As the ILO points out, "policies to promote greener products, services and infrastructures could translate directly into higher demand for labour in a wide range of sectors and activities and generate entirely new types of jobs through technological innovations that respond to the needs of sustainability".[7] Although such large-scale transitions would presumably require structural changes in many sectors which may occur in a phased manner over time, green jobs could be a catalyst for transitions to a green economy and can be considered a policy objective in themselves.[8]

Figure 1 illustrates the concept of green jobs at the interface of the welfare of workers (X axis) and environmental sustainability (Y axis). The top-left quadrant covers jobs that lead to environmental improvements without ensuring employment conditions that provide decent work. The bottom-right quadrant includes jobs that may be considered decent but do not contribute to environmental sustainability. The top-right quadrant represents jobs that would be considered green jobs from the perspective of environmental sustainability as well as workers' welfare. It would be imperative for the sectors identified as major drivers of green jobs creation in Sri Lanka, to ensure that jobs are not only linked to environmental benefits but also fall within the framework of decent work as defined by the ILO.

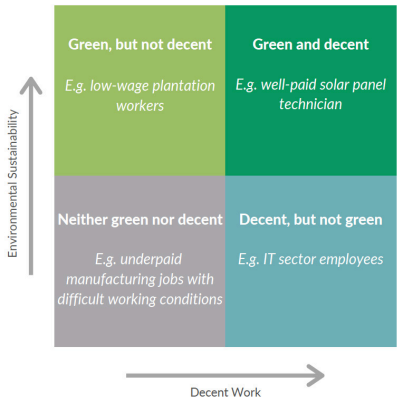


Figure 1: A schematic framework for Green Jobs

This paper is organized into four sections. Having introduced the concept of green jobs in Section 1, Section 2 develops a set of propositions about the potential for green jobs in key sectors of the Sri Lankan economy. Section 3 describes policies that would be needed to drive the creation of green jobs. The concluding Section 4 highlights the significance of green growth to the Sri Lankan economy along with sectoral assessments for the identified sectors vis-à-vis the framework for green jobs illustrated through Figure 1.

2. Sectors with Green Job potential in Sri Lanka

Globally, a strong potential for green jobs has been identified in sectors that are major emitters of greenhouse gases (GHG), as well as those that significantly depend on environmental resources. Incorporating green practices could limit the negative impacts of these sectors which substantially contribute to environmental degradation. The UNEP and ILO have suggested that globally, the energy, buildings, transportation, basic industry and recycling, food and agriculture, and forestry sectors could create green jobs in the future.[9]

In the case of Sri Lanka, ILO's Future of Work in Sri Lanka report notes that there are strong sustainability-led opportunities in the agricultural, renewable energy, waste management, and tourism sectors in the country. In addition to these, apparel manufacturing is one of the major industries within the manufacturing sector in Sri Lanka. Introducing green practises and ensuring decent work conditions could be a challenge for the sector, given the scale of operations, environmentally harmful industrial practises, and the large share of Sri Lanka's workforce employed in the sector. On the other hand, success in greening the apparel sector could have far-reaching benefits for Sri Lanka's transition to a green economy, given the importance of the sector to country's economy. The adoption of environmentally friendly practices could, more generally across service and manufacturing, also lead to the creation of green collar jobs - environmental expertise that will be required across all sectors. Having identified opportunities and barriers for the sectors mentioned earlier, propositions for each sector have been developed in the following sections.

These propositions are statements of plausibility rather than predictions. They represent likely and possible changes Sri Lanka could bring about over the next decade based on its unique socio-economic and labour context and are based on an analysis of global and regional trends in green growth.

Responsible Tourism

The growing demand for wellness tourism and ecotourism has significant potential to be one of the drivers of green growth in Sri Lanka, but would require a large number of workers skilled in sustainable practices and management to support the transition.

The tourism industry is a major contributor to the Sri Lankan economy – contributing 4.9 per cent to its GDP in 2018. [10] In 2018 the tourism sector, supported 388,487 jobs in Sri Lanka.[11] This figure is expected to rise to 1,037,000 jobs in 2028 (including jobs indirectly supported by the tourism industry).[12] Sri Lanka's tourism industry has experienced a stable expansion since 2009, with the growth in visitor numbers averaging over 5 per cent year on year. [13] Growth in the tourism sector is expected to deliver substantial contributions to the island's economy and offer increased employment opportunities.

Sri Lanka's Tourism Strategic Plan 2017-2020, aligned with the Sustainable Development Goals, indicates its long-term plan to increase revenues from the sector by promoting responsible tourism and supporting local communities. Ecotourism could offer a sustainable alternative to the adverse social, economic, and environmental impacts often associated with mass tourism development and activities, currently concentrated in the ecologically fragile coastal areas of Sri Lanka, and be a major driver for green jobs creation in the future. Similarly, the wellness tourism industry could also be an important tourism niche to enable the shift from mass tourism activities to responsible models of tourism. In a bid to support the growth of wellness tourism in Sri Lanka and to ensure quality, standards, and safety, wellness tourism businesses have formed the Sri Lanka Wellness Tourism Association (SLWTA) in 2020.[14]

As a small country with a rich cultural heritage, traditional knowledge of Ayurvedic practises, diverse landscapes and flourishing biodiversity, Sri Lanka has the potential to be a hub for responsible tourism in Asia. For instance, ecotourism has been central to the employment generation capacity and economy of a relatively small nation such as Costa Rica. Direct and indirect employment generated by the tourism sector in Costa Rica is estimated to be 28 per cent of total employment (450,000 jobs) as of 2018, contributing 6.4 per cent to Costa Rica's economy. [15] Research indicates that sustainable tourism offers the best available employment opportunities in Costa Rica, nearly double the incomes in other sectors, as well as linked benefits such as protection of biodiversity.[16] Much like Sri Lanka, small businesses—eco-lodges, reserves and tour operators, as well as the growth of certifications—have been crucial in putting Costa Rica on the global map for sustainable tourism.[17]

The adoption of environmental management systems, standards and best practises could guide Sri Lankan businesses towards green processes, in turn, creating a demand for green jobs to support wellness and ecotourism businesses. Ecotourism, in particular, could support jobs associated with preserving and restoring the environment, such as eco-tour guides and operators, nature tourism rangers, conservation project managers, and biodiversity specialists.

Both ecotourism and wellness tourism could offer sustainable alternatives to the adverse social, economic, and environmental impacts often associated with mass tourism, currently concentrated in the ecologically fragile coastal areas of Sri Lanka

In order to boost the creation of green jobs, sustainable tourism businesses could work closely with local communities in developing means for promoting and sustaining local livelihoods, with a focus on ensuring better wages and work conditions for employees, and also limiting the overall impact of their operations on the environment.

From a little over half a million visitors in 2009, the figure for international visitations to Sri Lanka had increased to over two million in 2018, and is expected to cross the five million mark in 2028.[18] Despite the growth of the tourism sector in Sri Lanka, there is a massive shortfall of services and facilities compared with the increasing number of tourists. Studies suggest that against an anticipated requirement of 9000 new workers every year, Sri Lanka currently produces only 1500 per year.[19] With businesses classified as 'green' expected to grow to 75 per cent of the total tourism businesses by 2035–37[20], the current shortfall in skilled workers would need to be addressed to support the growth of responsible tourism businesses. In addition to hospitality services, there will be a need for the Sri Lankan government and international experts to collaborate for skilling and training workers in allied services such as resource management and conservation, wastewater treatment, eco-tour operations, and implementation of international certifications and standards. More efforts such as the Sri Lanka Ecotourism Foundation (SLEF)[21] are needed to support community-based tourism activities through infrastructure improvements, community and private sector participation, and regional cooperation.

Community-based Ecotourism in Sri Lanka's remote districts

The Sri Lanka Ecotourism Foundation (SLEF) has initiated programmes to promote community-based tourism development and provide opportunities to improve the lifestyles of poor communities in remote districts of Sri Lanka. Community ecolodges and camping have been promoted as tools to provide alternative incomes to local communities through tourism. The programme also focuses on environmental protection and biodiversity conservation. To support the programme, SLEF prepares local communities through training and awareness programmes aimed at imparting communication skills, micro-finance management, waste management and eco-friendly practices, and knowledge on biodiversity and the environment. Similar initiatives have been launched by the private sector. Abode Tours is a grass-root community-based tourism project established in 2002 offering homestays in remote communities in Sri Lanka.

Renewable Energy

The renewable energy sector is globally seen as the sector where a significant number of green jobs could be created. While the transition to renewable energy may be a challenge in the short-run, it offers immense potential for new work opportunities in the long run, provided the Government formulates policies that incentivise the sector.

At the 22nd United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP 22) in 2016, Sri Lanka had pledged to use only renewable energy sources for electricity generation by 2050. In order to meet its goal, the Sri Lankan government has set a target of generating 80 per cent of electricity through renewable sources by 2030.[22] A 10 per cent reduction in total energy consumption by 2020 is also sought to be achieved through the implementation of energy conservation measures[23].

Growth in the renewable energy sector is expected to generate high levels of employment opportunities, requiring green skills. Studies of trends in the renewable energy industry have found that in comparison with fossil fuel power plants, renewable energy generates more jobs per average megawatt of power manufactured and installed[24]. The 2019 Annual Review of Renewable Energy and Jobs by the International Renewable Energy Agency notes that there has been a jump in the employment figures in the renewable energy sector globally - from 7.28 million jobs in 2012 to 11 million jobs in 2018, with solar energy and bioenergy (liquid biofuels, solid biomass and biogas) seen as the sectors with the most potential for job creation.

Although the renewable energy sector is still nascent in Sri Lanka, there is potential for green jobs in areas such as the installation and maintenance of solar panels and wind turbines. The Ministry of Power and Renewable Energy has recently launched the Battle for Solar Energy initiative, in collaboration with the Sri Lanka Sustainable Energy Authority (SLSEA), the Ceylon Electricity Board (CEB) and the Lanka Electricity Company (LECO). The initiative aims to promote the setting up of small solar power plants on the rooftops of households, religious places, hotels, commercial establishments and industries, to add 1000 megawatts of solar electricity to the national grid by 2025.

A significant part of Sri Lanka's import expenditure is spent on the import of fossil fuels for electricity generation, as is also the case for many small-island developing nations. Research suggests that transitions to renewable energy could not only be economically prudent for small island nations but also lead to self-sufficiency in the long-run[25]. While transitioning to renewable energy might be a challenge for Sri Lanka in the short-term, given the prerequisites of retrofitting or replacing current energy infrastructure setup with new technologies, the renewable energy sector has immense potential for green job creation once these infrastructural barriers are overcome. New green jobs such as sustainable product development specialists, environmental managers to oversee project site development, auditing professionals for international efficiency standards, and environmental officers to

Sri Lanka’s target of generating 80 per cent of its electricity through renewable sources by 2030 signals that the renewable energy sector could be an early and significant provider of green jobs in the country.

maintain standards and compliance, are some of the jobs that could be created. However, rapid technological change from non-renewable energy to renewables could create critical gaps in skills and education. Development of technical skills and knowledge among youth entering the labour force, as well as workers currently employed in the non-renewable energy sector would be crucial in addressing the gap and supporting the growth of new green jobs in this sector.

The potential of zero-emission electric vehicles to create green jobs was explored by an initiative of the Lanka Electric Vehicle Association (LEVA) in partnership with UNDP between 2003-05 [26], under which unemployed youth were trained to maintain and operate zero-emission electric and hybrid vehicles. Under the Japan-Sri Lanka Comprehensive Partnership, Sri Lanka has developed and launched electric three-wheelers in a bid to transform the domestic transportation sector and also generate revenue from the export of electric vehicles to other countries.[27] In the long run, zero-emission electric vehicles, and energy-efficient building and construction could be other areas where green jobs are created.

JLanka Technologies

JLanka is a known solar energy provider for domestic solar systems and has the highest number of commercial and home-use solar installations across Sri Lanka. The solar systems installed supply 15,000 kWh per day to the national grid, saving 16,000 tons of GHG emissions per year.

Sustainable Agriculture and Plantations

The adoption of environmentally-friendly farming practises to address both, climate change-induced extreme weather conditions which are increasingly hampering agricultural supply chains, and the global demand for organic and sustainable produce, could create green jobs for the agriculture and plantations sector in Sri Lanka.

Over 25 per cent of the Sri Lankan workforce is employed in the agricultural sector[28] with agricultural land making up nearly 40 per cent of all land use. The sector contributes nearly 8 per cent to Sri Lanka's economy[29], a significant reduction compared to previous years. Within the agricultural sector, plantation crops, which include tea, rubber, spices and coconut, make up 38 per cent of the agricultural produce. Additionally, the plantation sector alone employs approximately 10 per cent of the Sri Lankan workforce.[30]

Agriculture has been an important driver of poverty reduction in Sri Lanka and accounted for about one-third of the decline in poverty over the past decade.[31] Growth in agricultural wages from 2006 to 2013 was instrumental in the reduction of rural poverty in Sri Lanka. Increase in the international price for tea, a major export commodity for Sri Lanka, by more than 50 per cent between 2006 and 2009 improved the returns to self-employed farm labour and provided margins for higher wages for employed workers in the tea plantation sector, despite little change in yields.[32]

Although employment opportunities in the agriculture sector have declined in the last decade, the growing global demand for sustainable and organic speciality produce has the potential to open new markets and opportunities. For example, the global market for organic produce had reached 97 billion US dollars in 2017, up from 17.9 billion US dollars in 2000.[33] Globally, there are growing examples of positive impacts on farmers' livelihoods arising from the adoption of organic farming practices. For example, The Coffee Initiative, aimed at small-scale coffee growers in Ethiopia, Rwanda, Kenya and Tanzania, has benefited 267,987 farmers between 2008 and 2015, increasing their incomes by an average of 27 per cent over the period.[34] The initiative introduced climate-smart farming techniques and improved processing and sales channels, allowing farmers to benefit from higher and more consistent prices offered by the growing speciality coffee market.

For Sri Lanka, capturing the global and local demand for sustainable and organic produce to create green jobs will require addressing chronic issues in the agriculture sector such as low wages and social protection for plantation[35] and agricultural workers, high costs of production and low profitability, and low farm to market value addition. Wider adoption of environmentally-friendly practises such as precision agriculture, climate-smart farming and organic farming have the potential to reduce water and resource use. Currently, land under organic cultivation accounts for nearly 6 per cent of the total agricultural land in Sri Lanka.[36] Evidence from elsewhere suggests that adoption of organic farming by small-scale farmers,

Capturing the global and local demand for sustainable and organic produce could create green jobs in Sri Lanka. This will require a shift to environmentally-friendly farming practises, and the resolution of chronic issues in the sector - low wages and social protection, high costs of production and low profitability, and low farm to market value addition.

for example in China and Brazil, can lead to improved prices, incomes and market access.[37] To augment the value of speciality produce, adoption of voluntary sustainability certifications offered by Fairtrade International, International Federation of Organic Agriculture Movements (IFOAM), and Rainforest Alliance, could be beneficial for farmers.

In Sri Lanka, the adoption of sustainability certifications and voluntary standards has been limited to large-scale businesses within the agricultural sector. As demonstrated by a study of 202 small-scale Sri Lankan farmers, knowledge on organic standards and third-party certifications is fairly limited among smaller businesses.[38] Sustainability certifications could help in establishing credible standards which could ensure that workers at the end of the value chain are fairly compensated through better trade and working conditions. It could also encourage environmentally sustainable farming and production practices, and lead to agricultural innovation such as the adoption of soil and water conservation techniques.

Further, the development of global value chains, which include the full range of activities required to bring a product from its conception/production to its end use, could drive the creation of green jobs in Sri Lanka. Establishing facilities for processing and packaging of speciality produce before it reaches international markets could significantly add value to agricultural produce, and improve market access for small farmers, leading to increased incomes. However, the development of value chains, and processing and packaging facilities would have to be done in a manner which is environmentally sustainable, since the process of adding value might comprise activities which generate waste.

In the long-run, sustainable transformations in the agricultural sector could create new jobs for unskilled manual field labour; sustainable input production (bio-fertilizer) jobs; skilled agriculture extension service agents; community-scale food storage and processing operations; university researchers and educators; entrepreneurs in sustainable agriculture-related enterprises; and other employment categories.

Idulgashinna Bio Tea Garden

Established in 1977, the Idulgashinna Bio Tea Garden (Stassen Natural Foods (Pvt) Ltd) located in Haputale of the Uva Province quickly became one of the pioneers of organic tea farming in Sri Lanka and was certified organic as early as 1989. It supports ongoing community well-being and development programmes through the Bio Tea Project instituted in 1992. It became a Fairtrade certified plantation in the same year, tapping into the niche market for superior quality organic teas and adopting biodynamic cultivation to produce different varieties such as black tea, green tea and handmade designer teas.

Waste Management

The waste management sector currently comprised of temporary contract workers, would need better working conditions and implementation of standards for occupational safety to drive the growth of green jobs.

Management and treatment of solid waste are one of the key environmental and social challenges in Sri Lanka today. Sri Lanka generates 7000 metric tons of solid waste per day with the densely populated Western Province contributing to 60 per cent of the waste.[39] However, only half of the waste generated is collected and treated. Despite its size, Sri Lanka ranks among the top ten countries where plastic waste is mismanaged.[40] Trends in global employment suggest a wide gap in the number of people employed as informal waste pickers (15-20 million) as opposed to those employed in the formal waste sector (4 million).[41]

For Sri Lanka, there are important opportunities for the creation of green jobs in the waste management and recycling sector. As of 2014, less than 0.2 per cent of the country's total labour force was involved in waste management and remediation services.[42] Employment in the sector is marked by substandard working conditions, low wages, absence of standardized training and opportunities for skills development, and the informal nature of employment.[43] Despite these challenges, the sector has immense potential to create green jobs in the future. This could be possible through formal employment—ensuring better wages, work conditions and health and safety for workers employed in waste processing facilities.

Due to marketability and the potential for upgradation, plastics recycling and composting are seen as promising sectors for green jobs creation in Sri Lanka.[44] Further assessments of the environmental and social outcomes of waste segregation, handling and processing could lead to the development of value chains, increasing the revenue generated from the sector. The Malaysian city of Penang has introduced 'Bio Regen' food processing machines to compost a large portion of organic waste going to the city's landfill. Given that 40-50 per cent of Penang's waste is biodegradable material, large-scale composting is meant to reduce the pressure on the city's already limited landfill space. It also seeks to deal with GHG emissions generated due to the dumping of organic matter together with other waste. Additionally, composting lowers the cost of transporting and disposing of waste and helps prevent pollution of the city's waterways. Similar waste to energy solutions with the potential to produce bio-fertilizers as by-products have been introduced in Sri Lanka as well. The Colombo South Waste Processing Facility[45], and the Aitken Spence Power Station[46], a solid waste fired energy plant, are some examples. However, other small island nations such as Singapore have taken novel approaches for managing and recycling waste, which could be explored by Sri Lanka. Semakau Island is a dedicated landfill site where ash from Singapore's four incineration plants is shipped and used for reclamation work.[47]

While waste processing facilities could drive the creation of green jobs in the waste

For Sri Lanka, there are important opportunities for the creation of green jobs in the waste management and recycling sector. As of 2014, less than 0.2 per cent of the country's total labour force was involved in waste management and remediation services.

management sector, they would need to incorporate the International Labour Standards on Occupational Safety and Health (OSH) standards, as well as adopt and implement policies in consonance with conventions such as the Chemicals Convention, 1990 and Occupational Cancer Convention, 1974. Transforming temporary informal employment into formal employment in the waste management sector could facilitate unionization and collective bargaining to address decent work deficits and wages.

The Colombo South Waste Processing Facility

The under-construction waste to energy facility is located at the government-run Kardiyana landfill near Colombo. The facility is expected to process up to 500 metric tons of solid waste per day. As the first waste to energy facility in Sri Lanka to meet all international environmental standards, it is expected to generate a total of 83,000,000 kWh of electricity per year - sufficient to supply the demands of 40,000 households. The plant will also process degradable organic waste to generate liquid and solid biofertilizer. Similar projects are underway at Kerawalapitiya and Muthurajawela but have come to a standstill in recent times due to financial barriers.

Apparel Manufacturing

Sri Lanka would need to establish fair and non-exploitative work conditions and environmentally-friendly processes in the apparel sector to propel the growth of green jobs within the sector.

The apparel sector is one of the most significant contributors to the Sri Lankan economy, generating export revenue estimated to be five billion US dollars in 2018.[48] The sector employs about 15% of the country's workforce, providing over 900,000 direct and indirect jobs[49], and is largely comprised of women. Evolving from a cost-competitive model of production, Sri Lankan apparel manufacturers now provide sophisticated solutions to meet the global demands of the apparel industry.

Given the well-established global position of apparel manufacturers, incorporating environmentally friendly manufacturing processes, along with fair and non-exploitative work opportunities could create more green jobs within the sector. Sustainable initiatives like the "Garments Without Guilt" certification established by the Joint Apparel Association Forum (JAAF) in 2006 seek to promote fair labour practises and environmental sustainability.[50] In addition, more businesses in the apparel sector will need to adopt waste management and energy efficiency practices, increase dependence on renewable energy and reduce the consumption of water and chemicals in the manufacturing process.

In addition to providing decent work opportunities to the workforce that would be indirectly employed in the apparel sector, there is already an urgent need for better implementation of decent work standards for workers directly employed in the sector.[51] Workers' incomes in the apparel and textiles industries in Sri Lanka is currently one of the lowest in the world.[52] Work opportunities in the apparel sector are marked by wages which are much lower than other sectors in Sri Lanka[53], and are characterised by difficult working and living conditions, especially for the large female labour force.

Research on trade unions in Sri Lanka has traced the country's integration into the global economy and the steady withering away of freedom of association and collective bargaining in the country.[54] The apparel sector, comprising over 80 per cent women as its labour force[55], has not been immune to these issues. The female labour force has sought the resolution of several gender-specific issues plaguing the sector through collective action in 2019.[56]

Since most apparel manufacturers are based in Free Trade Zones (FTZs) located away from urban areas, women find it difficult to leave their families behind to secure long-term employment in apparel factories[57], resulting in a high employee turnover rate within the sector. Labour shortages in the apparel sector have been attributed to high attrition rates and aspirations of the youth to take up jobs in the services sector.[58] As part of a study, nearly 38 per cent of firms interviewed had nine per cent of unfilled vacancies, and 76 per cent of the

More businesses in the apparel sector will need to adopt waste management and energy efficiency practices, increase dependence on renewable energy, and reduce the consumption of water and chemicals in the manufacturing process. On the other hand, there is already an urgent need for better implementation of decent work standards for workers.

firms with vacancies took more than four months to fill them.[59] While public attention has been focused on the role of automation in replacing human labour, ILO's Future of Work in Sri Lanka report suggests that automation may not be a solution for the apparel sector. Most of the work in the sector is non-routine, requiring dexterity and agility, thus rendering labour a cheaper and more efficient option. A limited number of firms considering autonomation practices are looking to use technologies to enhance labour productivity rather than to replace humans altogether.

The apparel sector will continue to be dependent on human labour, for which it would be imperative to promote fair and non-exploitative working conditions. Although wages in the apparel sector have historically been lower in the South Asian region, government-led annual review of minimum wages and robust collective bargaining mechanisms have led to better wages and working conditions in some countries. Cambodia has reinvigorated its minimum wage-setting system in recent years. Since 2014, Cambodia has undertaken annual reviews of its minimum wage through the tripartite Labour Advisory Committee.[60] These reviews have involved evidence-based negotiations around agreed social and economic criteria and have resulted in the monthly minimum wage increasing to 128 US dollars in 2015[61] and to 190 US dollars in 2019.[62] Policy decisions to sustainably source and manufacture apparel, such as Vietnam's increasing use of bamboo fibre for apparel manufacturing, could boost Sri Lanka's position as a global hub for sustainable apparel.

While some of the biggest apparel exporters in Sri Lanka such as MAS Holdings, Brandix Lanka and Hirdaramani Group have made considerable progress in adopting environmentally friendly production practices, these efforts need to be scaled-up and adopted by more businesses within the sector. Reforms aimed at improving workers' wages, non-exploitative working conditions, women's safety and mechanisms for organising and collective bargaining could be critical in the creation and sustenance of green jobs in the sector.

MAS Intimates Thurulie

Established by MAS Holdings, one of Sri Lanka's leading apparel manufacturers in 2008, MAS Intimates Thurulie is the world's first apparel plant factory powered solely by carbon-neutral sources. MAS Intimates Thurulie was designed in compliance with U.S. Green Building Council (USGBC) standards for green buildings and complies with LEED Platinum standards. As a result, the energy required for operation is 25 per cent lower than that of comparable factories. As a founding member of the Sustainable Apparel Coalition (SAC), MAS Holdings seeks to promote environmental sustainability and the health and well-being of workers associated with its activities.

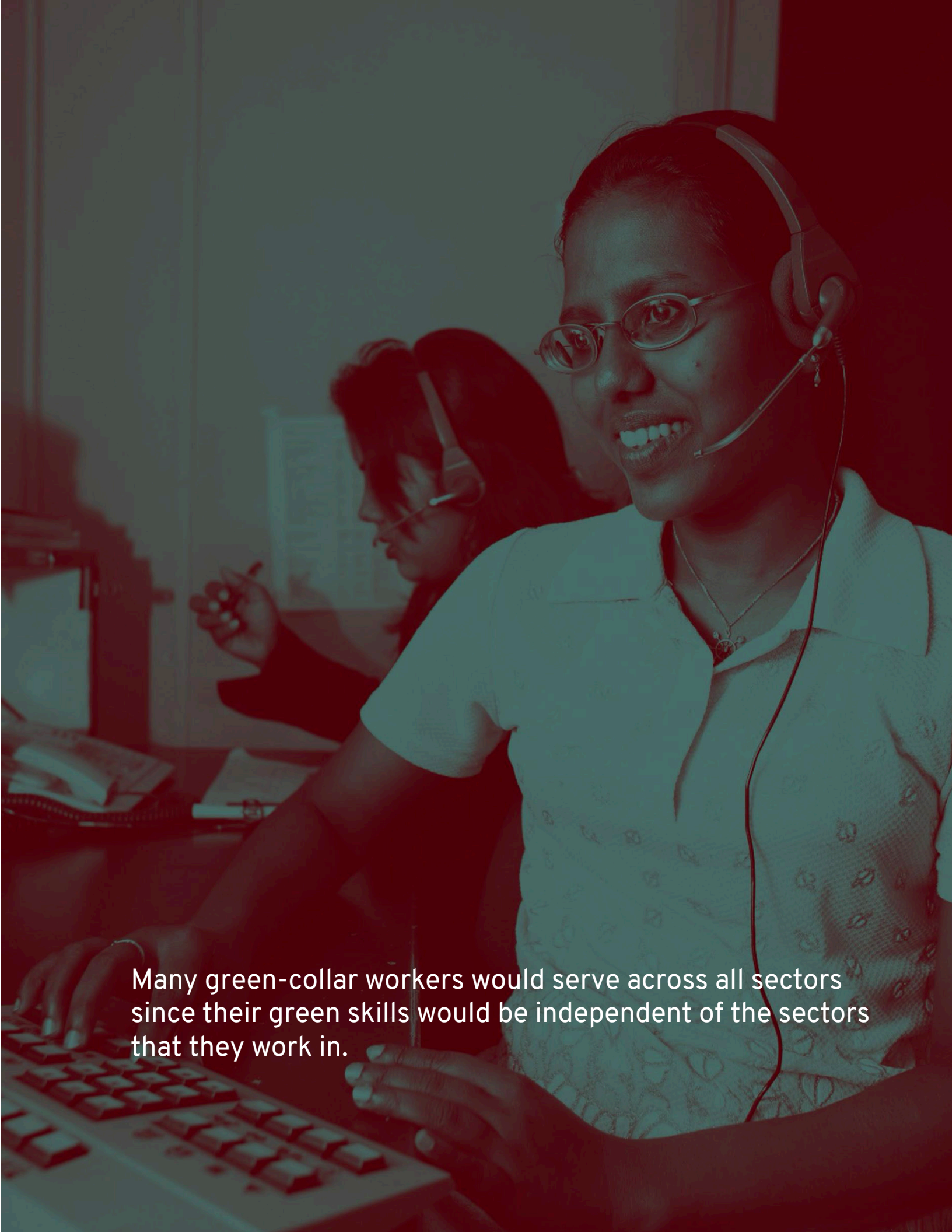
Green Collar Jobs

Greening of the Sri Lankan economy could, in turn, create green collar jobs to support environmentally sustainable initiatives across sectors. The creation of such jobs would depend on the extent to which green practices are adopted by other sectors in Sri Lanka.

The increasing focus on sustainability could create green-collar jobs for persons having green skills and responsibilities in businesses that may not be considered green. These could include environmental consultants, landscape architects, green building architects, environmental engineers, environmental lawyers, compliance officers and sustainability managers within firms and offices, and teachers and trainers who specialise in environmental/sustainability issues. They could be both traditional 'blue-collar workers' and professionals working within non-green sectors such as manufacturing and construction industries - e.g. construction workers trained in green building, or environmental compliance officers working for fossil fuel businesses. Many green-collar workers would serve across all sectors since their green skills would be independent of the sectors that they work in.

Some of the objectives of Sri Lanka's National Action Plan for Haritha Lanka Programme include establishing green cities and greening existing industries[63], indicating that the potential for green jobs could also be cross-sectoral. The creation of such jobs in the services and manufacturing sectors would depend on the extent to which green practices are adopted by other sectors in Sri Lanka.

With an increase in environmentally-related occupations as well as the "greening" of existing jobs, we must continue to research the characteristics and workplace exposures of green workers. This workforce plays an important role in repairing and preventing damage to the environment; however, this does not mean that the workers themselves are protected from harmful exposures and practices.[64]



Many green-collar workers would serve across all sectors since their green skills would be independent of the sectors that they work in.

3. Policy Pathways

Governments around the world are confronted with a dual challenge: to accelerate structural change towards higher productivity in a socially inclusive way, and to align economic development with the carrying capacity of our planet. Recognizing the need to harmonize both objectives in a green economy, the policy interventions discussed below could benefit Sri Lanka in its transition to a green economy, and lead to the creation of green jobs.

Existing policy frameworks could provide entry points for supporting strategies for increasing green jobs in Sri Lanka. The National Action Plan for Haritha Lanka Programme seeks to strike a balance between economic development and environmental sustainability by introducing improvements in the agricultural sector, conserving and restoring representative landscapes, addressing waste management issues, establishing green cities, and greening existing industries. To implement its policy objectives, the Sri Lankan government has enacted the Sustainable Development Act in 2017 which seeks to improve institutional coherence between governmental ministries, departments, local authorities and other public entities in implementing the Sustainable Development Goals (SDGs). Other government initiatives include the establishment of a National Green Reporting System to promote the reporting of sustainable practices and performance in the manufacturing and services sectors. Following up on its pledge to achieve the Sustainable Development Goals by the year 2030, the Sri Lankan government has appointed an independent scientific committee to recommend a sustainable development path for the country. It has also established a Parliamentary Select Committee on Sustainable Development to transform Sri Lanka into a sustainable, prosperous and advanced economy with a green and flourishing environment, and inclusive and just society.[65]

Five interlinked policy pathways are discussed in this section, these include: addressing the green skills and knowledge gaps; developing value chains and market access for green products; supporting greening as a business objective; ensuring social protection and just transitions and increasing public and private innovation and investments in the green economy.

i. Addressing the Green Skills and Knowledge gaps

Sri Lanka's transition to a green economy will largely depend on the development of skills among workers to enable them to switch to new practices, as well as the creation of knowledge contextualised to Sri Lanka through research and development around abating and minimising pollution, and reducing negative impacts associated with production and consumption. Studies such as ILO/CEDEFOP (2011)[66] and OECD (2011)[67] indicate that skill shortages are already impeding the transition to green growth.

A survey conducted by the Asian Development Bank and the Education University of Hong Kong (ADB-EdUHK) of important stakeholders from industry, government, NGOs and development agencies in Sri Lanka[68] indicated that most businesses from the energy,

construction and transport sectors recognise the importance of green jobs. However, the curricula designed by vocational training institutions are seen as being inadequate to meet the demands of the labour market.[69] Employers are, therefore, often reluctant to accept vocational training qualifications, and prefer informal on-the-job training instead.

This lack of an adequate and competent workforce with appropriate skills would require the re-examination of standard approaches to addressing issues within education and training and the alignment of these with sustainable growth. At the outset, a review of existing skill development policies must be done to align vocational training institutions with national green growth policies. Basic knowledge about green skills needs must be introduced in schools and higher education institutions, progressing gradually into expertise in specific green skills among future generations. Following India's example of a national-level Skills Council for Green Jobs[70], Sri Lanka could establish a national body which could help develop a national strategy and implement industry-led entrepreneur development initiatives to meet the island's potential for green jobs.

In pursuing skill development for green jobs, skilling programmes and strategies must offer equal learning opportunities to women, youth, and marginalized groups. This could be achieved by developing relevant education and training opportunities specifically for women and youth and providing guidance and incentives to marginalized groups. Most initiatives around green jobs are limited to organized sectors and formal workers. Evidence on the needs and potentials of sustainable skills in the informal economy, such as the role of artisans, craftsmen, home-based manufacturers, and traders must be researched and generated.

ii. Developing value chains and market access

Although the development of value chains is often associated with the creation of waste, developing value chains which comply with environmental standards such as ISO 4001 compliance for environmental management, could give rise to environmentally friendly processing and packaging facilities as well as logistics chains - all of which could drive the creation of new green jobs in Sri Lanka. The development of value chains in Sri Lanka could improve financial returns for businesses and producers and could lead to improved wages for workers.

Businesses based on local digital platforms also stand to benefit from the development of value chains. For many small-scale business owners, this could mean increased profits and growth prospects, as it would allow them to bypass intermediaries who pocket a significant share of the revenue.

iii. Greening as a business objective

Green jobs may not be a priority for some sectors and industries as stiff competition and the

pressure of achieving business targets push the issues of sustainability lower on their list of priorities. National policies to determine and define green practices, and to drive its adoption as a business objective in collaboration with big businesses, could lead to the adoption and implementation of green practices by a large number of businesses. This could significantly increase the demand for green jobs in the future.

Incentivising the private sector and vocational training institutions could also boost green skills demand and development. In 2019, the Central Bank of Sri Lanka launched a programme to assist businesses that are greener, climate-friendly and socially inclusive.[71] The government could provide additional incentives in the form of financial tax breaks and subsidies on land and equipment to promote green businesses and green skills-oriented vocational training institutions.

iv. The role of labour unions in social protection and just transitions

The transition to a green economy may create unintended risks for the workforce, rendering some workers unemployable due to skill gaps. If workers feel vulnerable due to existing policies and work benefits, they will be more reluctant to change, as policies to green the economy may have unexpected impacts on jobs, incomes and social security. Labour unions could play a vital role in ensuring Sri Lanka's transition to a green economy.

Through collective bargaining processes, policies to mitigate job losses and provide unemployment benefits would have to be negotiated. In addition, labour unions would need to ensure that employability of workers is improved through targeted training and reskilling programmes which helps workers anticipate and address skill needs in order to adapt to transformations in existing occupations - ensuring a just transition towards a green economy.

v. Public and private innovation and investments in the green economy

Creating innovation opportunities for the production and diffusion of new ideas, products and processes could be fundamental for the transition to a green economy. Since technologies used for production and consumption would need a radical overhaul, a technological breakthrough may be a necessity for some sectors. Designing policies which facilitate innovations and foster public and private investments into those innovations could accelerate the green transition for Sri Lanka.

This could be done through the development of a long-term vision, creating an enabling environment for experimental programmes and projects through public-private partnerships, and establishing mechanisms for policy learning from such experiments. Recognising that a large number of technological solutions have originated in developed countries, green innovations for Sri Lanka could be spurred by international partnerships, leading to technology-transfer, development of technical knowledge via demonstration projects, and

training of local staff. The Innovation and Entrepreneurship Strategy of Sri Lanka 2018-2022[72] is a positive step towards this end. However, policies specifically at the interface of innovation and sustainability would be needed to drive Sri Lanka's push towards a green economy.

Technologies geared towards sustainability, reusability and resource-efficiency have the potential to increase productivity and open up new opportunities for the workforce, for which substantial investments would have to be made by the Sri Lankan government, the country's private sector, as well as multilateral development banks for long-term benefits.

4. Conclusion

While the creation of green jobs presents some challenges in Sri Lanka, it also offers major opportunities for long-term socio-economic and environmental benefits. Green jobs, however, cannot be narrowly understood as employment opportunities in a set of industries providing environmental services. Green jobs also need to provide decent work with good employment conditions. There are many examples in the developing world where sectors that provide environmental services, e.g. waste management, do so at the cost of the health and wellbeing of workers. Transitions to more sustainable systems of production will also create disruptions and winners and losers in terms of employment opportunities. Workers involved in older and obsolete industries will need to be re-skilled and absorbed into new ones.

As a small country with rich natural and cultural diversity, Sri Lanka is well-positioned to economically benefit from the growth of responsible tourism, as well as create environmentally friendly jobs within the sector. Current government policies promoting sustainable tourism indicate that ecotourism and wellness tourism businesses could be majors provider of green jobs. Although the tourism and hospitality sector offers better work opportunities as compared to some other sectors in Sri Lanka, workers will have to be reskilled/upskilled to be mindful of the range of environmental impacts attributable to the day-to-day operations of tourism businesses. In relation to the framework for assessing green jobs, jobs within this sector need to move from the bottom-right quadrant (decent, but not green) to the top-right quadrant (green and decent).

For Sri Lanka, and as is the case for many developing countries, the renewable energy sector could be critical for a green transition. The increasing use of renewable energy within areas such as transport, buildings, industries as well as energy generation itself, could translate into several direct and indirect work opportunities in the future. Although the renewable energy sector largely addresses environmental sustainability, decent work conditions will have to be ensured for workers. Assessment for the sector indicates that it is largely aligned with the top-right quadrant (green and decent). Sustained efforts will be needed to ensure that jobs created in the future conform with both environmental sustainability and decent work criteria.

Greening the export-oriented agriculture and plantations sector to cater to the global demand for sustainable and organic produce, could augment the sector to be an important provider of green jobs in the country, at the same time adding significant economic value to the produce. For the agriculture and plantations sector, the working conditions will need to improve to address decent work deficits within the sector, along with the adoption of environmentally-friendly farming practises. Assessment for the sector in relation to the framework for green jobs indicates that jobs largely need to move from the top-left quadrant (green, but not decent) to the top-right quadrant (green and decent).

Transforming the waste management sector could be a viable means of limiting environmental

degradation and providing decent work opportunities for the workforce. However, several interventions including formal employment of workers, adoption of occupational health standards, as well as fair wages and social security benefits for workers will be needed to ensure that jobs within the sector meet the decent work criteria. Assessment for the sector in relation to the framework for green jobs indicates that jobs need to move from the top-left quadrant (green, but not decent) to the top-right quadrant (green and decent).

The adoption of environmental management systems and standards in the apparel sector could guide businesses towards green processes, in turn, creating a demand for green jobs to support sustainable initiatives. For example, apparel manufacturing facilities could adopt certifications and standards which helps organizations minimize the negative impacts of their operations on the environment through optimal use of energy, water and other resources. On the other hand, decent work deficits for apparel sector workers need to be addressed as well. In relation to the framework for assessing green jobs, jobs within this sector need to move from the bottom-left quadrant (neither green nor decent) to the top-right quadrant (green and decent).

In Sri Lanka, the impact of progressive policies and sustainability measures has resulted in the opening up of new employment opportunities that are likely to further increase in the future. In order to capitalise on these opportunities, Sri Lanka will need to address some challenges. As more sectors and industries adopt green practices, the Sri Lankan economy will require a steadily increasing pool of workers possessing green skills - technical skills and knowledge, values and attitudes needed to develop and support sustainable social, economic and environmental outcomes in business, industry and the community. From this perspective, appropriate skills training and education measures and policies, and programmes for skilling and reskilling of workers will be crucial for a just transition to a green economy. Along with skilling needs, a better understanding and implementation of decent work conditions will be needed, especially since decent work deficits are persistent features for many South Asian countries.

5. Endnotes

1. UNEP/ILO/IOE/ITUC, "Green Jobs: Towards Decent Work in a Sustainable, Low-Carbon World", 2008.
2. Alex Bowen, Samuel Fankhauser, Nicholas Stern and Dimitri Zenghelis, "An outline of the case for 'green' stimulus", The London School of Economics and Political Science, 2009.
3. United Nations, "The Future We Want", 2012.
4. ILO, "Future of Work in Sri Lanka: Shaping technology transitions for a brighter future", 2019.
5. Ibid.
6. Alex Bowen, "'Green' growth, 'green' jobs and labor markets", World Bank, 2012.
7. ILO, "Work in a changing climate: The Green Initiative", 2017.
8. ILO, "Sustainable development, decent work and green jobs", International Labour Conference, 102nd Session, Geneva, 2013.
9. UNEP/ILO/IOE/ITUC, "Green Jobs: Towards Decent Work in a Sustainable, Low-Carbon World", 2008.
10. Sri Lanka Tourism Development Authority (2018) "Annual Statistical Report 2018, "
11. Ibid.
12. World Travel & Tourism Council, "Travel & Tourism: Economic Impact 2018 Sri Lanka", 2018
13. Sri Lanka Tourism Development Authority (2018) "Annual Statistical Report 2018, "
14. "Wellness tourism industry gets its own association", DailyFT, January 1, 2020.
15. OECD, "OECD Tourism Trends and Policies 2018", 2018.
16. Carter A. Hunt, William H. Durham, Laura Driscoll and Martha Honey, "Can ecotourism deliver real economic, social, and environmental benefits? A study of the Osa Peninsula, Costa Rica", Journal of Sustainable Tourism, Volume 23, Issue 3, 2015.
17. Geoffrey Jones and Andrew Spadafora, "Creating Ecotourism in Costa Rica, 1970–2000", Enterprise & Society, Volume 18, Issue 1, Cambridge University Press, 2017.
18. Ibid.
19. Ibid.
20. Maharaj Vijay Reddy and Keith Wilkes (Eds.), "Tourism in the Green Economy", Routledge, 2014.
21. Sri Lanka Ecotourism Foundation, "Sri Lanka Ecotourism Foundation", Accessed November 26, 2019. http://www.srilankaecotourism.org.
22. "Renewable energy sources set to power Lanka by 2030", Daily News, February 14, 2020.
23. Ibid.
24. Max Wei, Shana Patadia and Daniel M. Kammen, "Putting renewables and energy efficiency to work: How many jobs can the clean energy industry generate in the US?", Energy Policy, Volume 38, Issue 2, 2010.
25. Keron Niles and Bob Lloyd, "Small Island Developing States (SIDS) & energy aid: Impacts on the energy sector in the Caribbean and Pacific", Energy for Sustainable Development, Volume 17, Issue 5, 2013.
26. SGP The GEF Small Grants Programme, "Introduction of Electric Vehicles to Sri Lanka by the Lanka Electric Vehicle Association", Accessed November 26, 2019. https://sgp.undp.org/spacial-

itemid-projects-landing-page/spacial-itemid-project-search-results/spacial-itemid-project-detailpage.html?view=projectdetail&id=423.
27. “Govt. launches electric three-wheelers”, DailyFT, July, 24, 2018.
28. FAO, “Country Gender Assessment of Agriculture and the Rural Sector in Sri Lanka”, 2018.
29. Ministry of Finance, “Sri Lanka At A Glance 2016-2018”, Government of Sri Lanka.
30. ILO, “Future of Work in Sri Lanka: Shaping technology transitions for a brighter future”, 2019.
31. Ministry of Agriculture, Rural Economic Affairs, Irrigation and Fisheries and Aquatic Resource Development, “Agriculture Sector Modernization Project”, Government of Sri Lanka.
32. Ibid.
33. Helga Willer and Julia Lemould (Eds.), “The World of Organic Agriculture: Statistics and Emerging Trends 2019”, Research Institute of Organic Agriculture (FiBL), Frick and IFOAM - Organics International, Bonn, 2019.
34. Technoserve, “Brewing Prosperity in East Africa: Coffee Initiative Final Report”, 2016.
35. “A bitter brew: For Sri Lanka’s tea estate workers, a fair wage is still elusive”, The Hindu, October 5, 2019.
36. Helga Willer and Julia Lemould (Eds.), “The World of Organic Agriculture: Statistics and Emerging Trends 2019”, Research Institute of Organic Agriculture (FiBL), Frick and IFOAM - Organics International, Bonn, 2019.
37. Myles Oelofse, Henning Høgh-Jensen, Lucimar S. Abreu, Gustavo F. Almeida, Qiao Yu Hui, Tursinbek Sultan and Andreas de Neergaard, “Certified organic agriculture in China and Brazil: Market accessibility and outcomes following adoption”, Ecological Economics, Volume 69, Issue 9, 2010.
38. S.M.C.B. Karalliyadda and Tsuji Kazunari, “Certified Organic Farming: Awareness of Export Oriented Small-Scale Farmers in Sri Lanka”, Journal of Sustainable Development, Volume 11, Number 6, 2018.
39. AustralianAID/ILO, “Green Jobs in Asia Project”, 2012.
40. Jenna R. Jambeck, Roland Geyer, Chris Wilcox, Theodore R. Siegler, Miriam Perryman, Anthony Andrady, Ramani Narayan and Kara Lavender Law, “Plastic waste inputs from land into the ocean.” Science, 347(6223), 768–771, 2015.
41. ILO, “Opportunities for green jobs in the waste sector”, Accessed November 26, 2019. https://www.ilo.org/global/topics/green-jobs/events-training/WCMS_538802/lang--en/index.htm.
42. ILO, “Sri Lanka: Employment and Environmental Sustainability Fact Sheets 2017”, Accessed November 26, 2019. https://www.ilo.org/asia/publications/issue-briefs/WCMS_625974/lang--en/index.htm.
43. AustralianAID/ILO, “Green Jobs in Asia Project”, 2012.
44. Ibid.
45. Fairway Waste Management, “Karadiyana Waste Processing Project”, Accessed November 26, 2019. https://www.fairwaywastemanagement.com/karadiyana-w2e.

46. “HNB partners Aitken Spence as lead banker to Rs. 9 b first waste-to-energy plant”, DailyFT, August 15, 2017.
47. National Environment Agency, “Waste Management Infrastructure”, Government of Sri Lanka.
48. Board of Investment of Sri Lanka, “Apparel: Overview”, Accessed November 26, 2019. http://investsrilanka.com/sectors/apparel-2.
49. Ibid.
50. SGS, “Garments Without Guilt”, Accessed November 26, 2019. https://www.sgs.com/en/sustainability/social-sustainability/social-responsibility-sr/garments-without-guilt.
51. ILO, “Future of Work in Sri Lanka: Shaping technology transitions for a brighter future”, 2019.
52. ILO, “Wages and working hours in the textiles, clothing, leather and footwear industries”, 2014.
53. R.P.I.R. Prasanna and R.H. Kuruppuge, “General wage situation of Apparel Industry Workers in Sri Lanka”, Asia Floor Wage Alliance, 2013.
54. Samanthi Gunawardana and Janaka Biyanwila, “Trade unions in Sri Lanka: Beyond party politics”, Trade Unions in Asia: Balancing Economic Competitiveness in Social Sustainability, Routledge, London, 2008.
55. “The Dwindling Stitching Hands: Labour Shortages in the Apparel Sector in Sri Lanka”, Institute of Policy Studies of Sri Lanka, April 3, 2017.
56. “Sri Lanka garment workers stand up for their rights”, Solidarity Center, January 22, 2019.
57. “Sri Lanka’s Garment Workers ‘Stand Up’ for Rights”, Medium, January 6, 2017.
58. Athula Ranasinghe, Sunimalee Madurawala, Jen Je Su and Thushara Senadeera, “An empirical investigation of the labour shortage in the manufacturing sector in Sri Lanka”, Griffith University, 2016.
59. Ibid.
60. ILO, “Wages and productivity in the garment sector in Asia and the Pacific and the Arab States”, 2016.
61. Ibid.
62. “Cambodia raises textile workers’ wages”, Bangkok Post, September 20, 2019.
63. Ministry of Environment and Natural Resources, “National Action Plan for Haritha Lanka Programme”, Government of Sri Lanka, 2009.
64. Laura A. McClure, William G. LeBlanc, Cristina A. Fernandez, Lora E. Fleming, David J. Lee, Kevin J. Moore and Alberto J. Caban-Martinez, “Green Collar Workers: An Emerging Workforce in the Environmental Sector”, Journal of Occupational and Environmental Medicine, Volume 59, Isue 5, 2017.
65. “President’s vision for a sustainable nation by 2030”, Sunday Observer, September 15, 2019.
66. ILO/CEDEFOP, “Skills for Green Jobs: A Global View”, 2011.
67. OECD, “Towards green growth”, 2011.
68. Rupert Maclean, Shanti Jagannathan and Brajesh Panth (Eds.), “Education and Skills for Inclusive Growth, Green Jobs and the Greening of Economies in Asia”, Springer, 2018.

69. ILO, “Decent Work Country Programme Sri Lanka 2018-2022”, 2018.
70. Government of India, “Skills Council for Green Jobs”, Accessed November 26, 2019. https://sscgj.in.
71. Central Bank of Sri Lanka, “Roadmap for Sustainable Finance in Sri Lanka”, 2019.
72. Ministry of Development Strategies & International Trade, “Innovation and Entrepreneurship Strategy of Sri Lanka 2018-2022”, Government of Sri Lanka, 2019.

The world of work in undergoing major transformations. Complex drivers of change- technological advancements, shifting political economies, and changing patterns of consumption and production, are heralding profound changes for the way people work and live. This paper is a part of ILO's Future of Work in Sri Lanka initiative in collaboration with Tandem Research as a knowledge partner.

ILO Country Office for Sri Lanka and the Maldives
202-204, Bauddhaloka Mawatha
Colombo 7
Sri Lanka
Tel: +94 11259 2525 Fax: +94 11 250 0865
Email: colombo@ilo.org
www.ilo.org/colombo

343 Coimavaddo Quitla,
Aldona, Bardez 403508,
Goa, India.
Email:
hello@tandemresearch.org
https://tandemresearch.org

TANDEM
RESEARCH