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The Work and Lives of Agricultural Workers

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Introduction

The British colonial regime neglected peasant agriculture because of its pre-occupations with the commercial crops of tea, rubber, and spices. Nonetheless, in the early years following Independence, peasants were Sri Lanka's largest occupational group, especially after government investment in large-scale irrigation schemes, such as Gal Oya and Mahaweli that led to the country achieving a 90% self-sufficiency rate in rice (paddy) production by the mid-1980s (Wickramasinghe 2014). Hence, understanding Sri Lanka's agricultural workers requires appreciating agriculture policy, the role that agricultural production plays in household reproduction, and the transformation of peasants and smallholder farmers into agri-entrepreneurs.

The post-colonial state heavily subsidizes agricultural production and, to mobilize nationalist voting constituencies, regularly invokes the idiom of the peasant's toil to feed the nation. While the image of the peasant remains strong, persons working in the agriculture sector are also called smallholder farmers, agricultural workers, and, most recently, agri-entrepreneurs. In general, risk, uncertainty, and low pay characterize the lives of agricultural workers in Sri Lanka.

Who Is the Agricultural Worker in Sri Lanka?

There are several ways to conceptualize the agricultural worker. Agricultural workers are individual men and women who might work on large or small landholdings owned by others as daily wage labourers without a contract. They are also called smallholder farmers, men, and women who cultivate their own landholdings, which may be titled jointly in the names of a husband and wife or titled only in a man's name. Smallholder farmers might work their plots alone, with unpaid family labour, or occasionally hire daily wage workers from nearby villages. Smallholder farmers who own land might enter into agreements with private sector corporations or government entities, forming nodes in their supply chains via out-grower programmes and nucleus farming schemes (Senevirathna 2018). These distinctions are important as they shed light on the fact that not only is agricultural work heterogeneous, but also that there are many entities looking to exploit or develop the agriculture sector in various ways. Therefore, the nature and the range of agricultural work and associated opportunities shape the lives and livelihoods of people who work in agriculture and their families.

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Finally, knowledge about people who work in agriculture depends upon who is writing about and analysing the agriculture sector, and how agricultural workers fit into their vision of the sector's future. The Sri Lankan government, I/NGOs, and donor institutions with intentions to improve agricultural productivity for the purposes of economic growth, for example, write about agricultural workers very differently than agricultural scientists trying to find ways to help farmers adapt to the risks presented by climate change (e.g., decreased rainfall and prolonged dry seasons, increased rainfall and flooding, high winds and fluctuating and increased temperatures).

As the country's protracted conflict devastated agricultural infrastructure and livelihoods in the North and East for over 30 years, there is more knowledge about farmers' and agricultural workers' lives in these conflict-affected districts (Klem and Kelegama 2020). Private sector actors, and the donor agencies that support them, analyse the lives of people working in agriculture in instrumental ways as they are interested in finding ways to incorporate workers into markets and value chains.

Overview of the Agricultural Sector

Agriculture is not only a source of income, but a way of life and an expression of cultural heritage. For many people who work in agriculture, it is the only calling that they have the education and skills to pursue. Many factors shape the lives and well-being of agricultural workers in Sri Lanka, such as regional place of residence, land ownership status, and crops cultivated. Even though 77% of Sri Lankans live in rural areas, employment in the service industry is a more important source of income than employment in agriculture. In 2022, 27% of the Sri Lankan population worked in agriculture (World Bank 2022a).

Women outnumber men in the agriculture sector, particularly in their contribution as unpaid family workers (Asian Development Bank 2016). Given gender roles and responsibilities, women working in agriculture contribute a considerable amount of unpaid labour to the agricultural economy. This occurs not only in family-owned and operated farms, but also as subsistence labourers in backyard home gardens as well as the unpaid labour of social reproduction (e.g., cooking, cleaning, and child-rearing), which allows and supports men to pursue paid agricultural work (Gunawardana 2018). While more women than men worked in agriculture in 2019 (27% versus 23%), both men and women are moving away from agricultural work. The highest employment for women in agriculture was 49.7% in 1998; the highest rate for men was 43.8% in 1992.

In 2018, the government classified just over 45% of the country's land as agricultural land up from 27% in 1962. Agriculture contributes 7% to the country's Gross Domestic Product (GDP) (World Bank 2022b). There are sharp regional variations with respect to GDP and agricultural production. The island's most developed and urbanized province, the Western Province, contributes only 3.2% to the island's agricultural productivity whereas more rural provinces, such as Uva, the Northern, and the North Central contribute larger shares to agricultural GDP (30.1%, 24.2%, and 23.3%, respectively; ADB 2016).

Paddy cultivation takes place during both cultivation seasons, Maha (cultivation under rainfed conditions) and Yala (cultivation relying on irrigation water) – where these periods coincide with monsoonal rains and are pivotal in the dry zones of the country. When irrigation waters are too low for paddy cultivation in the Yala Season, farmers will cultivate other field (vegetable) crops, such as cowpea, maize or green gram, or vegetable crops, such as onion, brinjal, and beans. In 2009, paddy cultivation occupied 980,000 ha of cultivated land area island-wide and is an important source of income (Ministry of Primary Industries and Ministry of Agriculture 2016). During the war period, farmers in the Eastern Province maintained their paddy cultivation skills,

and young people in the province are interested in agriculture, which bodes well for food security and economic development.

Families that work in the agricultural sector often pursue diversified livelihood strategies. In newly resettled conflict-affected areas of the Eastern Province, for example, women in female-headed households rely on paddy cultivation, either as daily wage labourers or through payment-in-kind towards others. Some women cultivate parcels of paddy land as tenant farmers, using the harvest for their own consumption, seed paddy for the next harvest, and processing into rice for sale in nearby villages during the off-season (Munas and Lokuge 2013).

Informal employment which includes low or unpaid and unregulated work is higher in the agricultural sector than it is in other sectors of the economy, e.g., services, trade, and industry. Informal labour arrangements can create unreliable and unstable incomes for agricultural workers, which increases the vulnerability of their families to social and economic shocks, illness, inflation, weather-related hazards, and their ability to recover from shocks and stressors.

Daily wage work in agriculture falls within the informal sector. There are three general characteristics of informal agricultural work: first, it is based on oral contracts that are not registered with a government authority; second, informal workers do not have union representation, and third, it is seasonal work with payment either in cash or in-kind. Such working conditions create uncertainty for agricultural workers as they are not regulated work environments (Upali 2017; Senevirathna 2018).

There is a gender wage gap between men and women agricultural workers in the informal sector. Men generally make a few hundred rupees more per day than women for the same work and the range of a potential daily wage earning is wider for men than for women. For example, in the Southern Province, a man's daily wage is approximately 31% higher than a woman's (Upali 2017: 347). The undervaluing of women's work and the view of women as dependent on men are among the reasons that men and women hired as daily wage workers in paddy cultivation, highland crop cultivation (vegetable production), banana plantations, and chena cultivation are paid differently. Due to low wages, many agricultural workers in the informal sector earn incomes considered below the poverty line and qualify for government assistance, such as Samurdhi.

Rhythms of the Agricultural Household and the Household Economy

A traditional gender division of labour characterizes agricultural households (Patel and Moore 2017; Caron 2020). Men are considered the breadwinner, engaged primarily in paid work either in their own agricultural fields or outside the home to cover household expenses. Men also participate in unpaid work in diverse, species-rich home gardens, chenas (slash-and-burn agricultural plots), and in the gathering of forest produce. Adult family members spend less time on non-paid work as the extent of their landholding increases.

Women are also engaged in paid work unpaid work as paid work, unpaid work, and care work. care work. While both men and women may spend equal amounts of time in regular and informal paid employment, women spend much more time in care work: preparing meals and caring for children and elderly family members. Men spend very little time on childcare. Adult family members spend less time on non-paid work as the extent of their landholding increases. Overall, women work longer days than men and have less time for leisure (Rathnayaka and Weerahewa 2015). Older children and men with access to bicycles would be more likely to help with domestic chores, such as the collection of water and firewood (unpaid work) if the government improved rural roads.

Agricultural workers do not necessarily have access to modern agricultural technologies, which would connect them to private-sector opportunities that facilitate national economic growth as

well as improve household incomes reducing rural poverty (Ministry of Plantation Industries and Export Agriculture and Ministry of Education 2020). Women working in agriculture tend to have less access to capital and are often not able to implement measures suggested by agricultural extension services (Lamontagne-Godwin et al 2017). With respect to the workers' lives and the gender division of labour within agricultural households, women are responsible for the unpaid care work of household reproduction. Men devote few hours to care work within the household, allocating more of their time first to paid labour followed by unpaid work (Rathnayaka and Weerahewa 2015). Women contribute considerable on-farm labour across the agricultural cycle, including planting, weeding, and harvesting, all of which have positive effects on the household economy. However, women are not primary on-farm decision-makers and have limited involvement in local farmer organizations (Lamontagne-Godwin et al 2017). Furthermore, they are rarely considered farmers, as they are not landowners (Kalansooriya and Chandrakumara 2014).

Risks and Uncertainties Facing Agricultural Workers, Livelihoods, and Threats

While several uncertainties and associated risks characterize the lives of agricultural workers and agricultural smallholders, they are also targeted for a range of business, technology, and social science innovations, which can bring risks of their own – including becoming locked into exploitative value chains. The solutions to mitigate risks and cope with contingencies are hence never risk-free. The two greatest threats to agricultural workers' lives and their livelihoods are compromises to their health and natural disasters, and ecological change associated with global climate change.

Health Risks

For over two decades, residents of rural populations including men and women employed in agriculture in Sri Lanka's Northern, Uva, Eastern, and North-Central provinces have suffered from chronic kidney disease of unknown/uncertain etiology or origin (CKDu). Individuals suffering from this degenerative and irreversible kidney disease should visit their local hospital's renal clinic for routine dialysis at least once a week; however, uncertainty characterizes their treatment plans as medical equipment such as haemodialysis machines, medical staff, and related supplies often are limited in rural hospitals. Patients with advanced CKDu and/or end-stage renal failure experience joint pain, swelling of limbs, dizziness, and fatigue making it impossible to work (Senanayake 2022). Farmers often do not use protective gear, such as gloves, masks, or boots, while working with chemicals in the field. Given the diseases' unknown origin, scientists and public health experts continue to study CKDu to better understand if and the extent to which the application of agro-chemicals found in fertilizers and pesticides, agrochemical contamination of groundwater and drinking water, heavy metal exposure, and local geophysical characteristics such as soil type and soil structure are among the origin factors for CKDu.

The availability of pesticides within agricultural households enables self-harm or suicide via ingestion of pesticides. Given the uncertainties and challenges that farming families face such as poverty, debt, and that accompany with associated with stressors economic development (de Silva 2021; Utyasheva and Eddleston 2021), the ingestion of agricultural pesticides that often leads to death is a public health problem. Restricting access to the means or materials to commit suicide or self-harm is an effective preventative measure. Following legislative actions by the Government of Sri Lanka between 2008 and 2011, which banned the use of popular chemical

compounds such as dimethoate and paraquat, suicide rates dropped by 70% and without negative effects on agricultural yields (Knipe, Gunnell and Eddleston 2017).

Adapting to Uncertainty: The Risk of Natural Disasters and Global Climate Change

With the effects of global climate change including but not limited to flash flooding, drought, and excessive heat waves, pursuing an agricultural-based livelihood is risky. Farmers need to be able to quickly adapt to a range of unexpected weather conditions and often rely on traditional social and often rely on local ecological knowledge and traditional social institutions to do so. To adapt to changes in temperature and rainfall, farmers plant short-season crops, plant drought-resistant crops, change their crop sowing and planting dates, and plant trees.

Farmers cultivating in the Mahaweli system are working together and practising *bethma*, a traditional drought mitigation technique (Burchfield and Gilligan 2016). Under *bethma*, farmers abandon their individual plots and redistribute all land in the command area (the area adjacent to the irrigation source/dam) among all cultivators. Every farmer will have access to the same sized parcel to cultivate regardless of how much land they own. As a result, some farmers sacrifice private gains so that everyone can cultivate something under drought conditions. Downstream farmers at the tail-end of the command area who would not receive irrigation water due to drought conditions are asked to migrate to the head-end, the command area, to cultivate. In some cases, this requires Tamil-speaking farmers to move temporarily to Sinhala-speaking areas for cultivation. Even though every farmer in the system cultivates less area under *bethma*, farmers prefer this than to have a situation where some farmers are not able to cultivate at all.

Adapting to Uncertainty: Government Policy and Government Decision-Making Power

The Government of Sri Lanka started resettling families from southern parts of the island to the Mahaweli Accelerated Agricultural Development Scheme in the 1950s (Muggah 2008). Today, the Mahaweli Authority of Sri Lanka (MASL) advises farmers to grow soy, maize, or other drought-tolerant crops, such as onion or chillies, as these crops use less water than paddy. However, farmers have little incentive to switch to these crops as the government heavily subsidizes paddy cultivation. To control prices, the Government of Sri Lanka tries to exercise some control over farmer cultivation practices. Its 'one village one crop' approach, for example, ensures that farmers do not overproduce any one crop leading to its oversupply and a lower price point. Farmers may produce multiple crops over a year, but only one crop at a time.

In early 2021, the Government of Sri Lanka banned chemical fertilizers, essentially forcing farmers to pursue organic agriculture. Reducing reliance on imported fertilizer would not only save the cash-strapped government valuable foreign exchange, but then President Gotabaya Rajapaksa argued that the chemical fertilizers posed health and safety risks to agricultural workers (see health risks above). Elevating Sri Lanka on the global stage, as the first 100% organic farming nation and steadfastly protecting citizen rights to non-toxic produce, served as policy justifications for the ban (Presidential Secretariat 2021), not the country's own high level of indebtedness and currency instability (Wipulasena and Mashal 2021). The application of this ban also revealed a double standard, the ban presented an undue hardship on agricultural smallholders whereas large

corporations, such as Dole Foods and tea plantation corporations, were exempt (A subsistence farmer 2021).

As a result of this organic turn, crop yields suffered. Nearly 75% of Sri Lankan farmers use chemical fertilizers and could not switch over to organic cultivation techniques quickly enough to produce crops, which subsequently left a considerable amount of arable land uncultivated (Wipulasena and Mashal 2021). In other cases, crops failed without their usual inputs. Lower yields and inability to grow grains and vegetables reduced the country's food supply, leading to food shortages, inflated food prices, and redirecting whatever foreign exchange might have been saved on fertilizer imports to importing rice (estimated at $450 million USD; Nordhaus and Shah 2022).

The government reversed the policy in October 2021, following widespread farmer protests. In early 2022, it agreed to pay compensation to over one million rice farmers who lost crops due to the chemical fertilizer ban (AFP 2022). In addition to the risks and uncertainties discussed in this section, agricultural workers also find themselves as targets of external actors. The targeting of agricultural workers is discussed below.

Agribusiness Networks and Local/Global Value Chains

The lives of agricultural workers and the opportunities that they have, to some extent, depend on where they live and work in the country. As mentioned above, people who work in agriculture are often seen by the government, donor institutions, and private sector entities as instruments to help achieve economic and/or gender equality goals. Given the war's (1983–2009) devastating impact on infrastructure, the Government of Sri Lanka together with international donor institutions, such as the United States Agency for International Development (USAID) and agribusinesses, such as the global entity Land O'Lakes and local Sri Lankan corporation, such as Hayleys and Cargill, are working together to rebuild the conflict-affected agricultural economy of the North and East as well as border areas in the Uva and North Central Provinces (Senevirathna 2018). In the North and East, farmers participate in donor investments in dairy, horticulture (i.e., passion fruit, onion, chilli seed, and mushrooms), and poultry production meant to improve family member nutrition and household incomes through commercialization and strengthen value chains with input suppliers, private sector buyers, and local markets. Financial management, financial literacy, and recordkeeping classes improve their entrepreneurial skills. Donor agencies target women to promote their empowerment and gender equality within the agricultural sector, providing them with improved technologies, such as chicken coops or animal feed, and investment financing. These financing schemes that include microcredit often have adverse consequences for women (de Soysa 2021).[1] Donor agencies also target youth to demonstrate the potential of agriculture as a profitable occupation. Following such interventions, some men indicate their main source of income and occupation has switched from paddy to dairy production.

Over the past decade, smallholder farmers have become increasingly more involved in contract farming arrangements with private sector entities, as global financial and donor institutions promote private sector-led agricultural transformation as a poverty reduction cum economic growth strategy. While such partnerships might improve income and access to markets in the short term, they do not necessarily address the root causes of poverty in rural areas, and they create farmer dependency on the private sector (Senevirathna 2018).

Contract farming provides farmers with access to inputs and market opportunities. It connects rural farmers to global markets by integrating farmers into local value or supply chains. Private sector entities that manage supply chains provide farmers with access to credit, seeds, fertilizer and

other inputs, and the provision of such goods and services is important to the country's post-war economic development strategy.

Access to improved technologies could enhance both the earnings of women who earn a living through agriculture and their contributions to value-added production. Women working in agricultural households do not have access to many modern, energy-based household conveniences, such as energy efficient cook stoves, washing machines or refrigerators, which does little to reduce their time spent in household social reproduction and limits their ability to participate in value-added processing of agricultural produce. Reduced access to water pumps, rice husking, and grain milling also limit women's productivity and contribution to their productive tasks in agriculture.

As the government restricts companies from owning large acres of land, local agribusiness companies, such as Hayleys and the local supermarket chain, Cargills, contract rural farmers via out-grower programmes and nucleus farming schemes. As part of these schemes, companies supply farmers with seeds or improved agricultural technology (i.e., drip irrigation or raised beds), training programmes on safe fertilizer and pesticide application, transportation, and a guaranteed market (Senevirathna 2018; Caron 2020). In exchange for these inputs, knowledge and services, farmers sell them their produce, ensuring a continuous supply of produce for these companies' urban consumers (Rathnayake, Gray, Reid and Ramilan 2022).

These corporations establish purchase contracts and provide contracted farmers with techniques to improve crop yields, seed production, and safely apply pesticides. For example, over 1,110 farmers participate in Hayleys Agro Farms (Pvt) Limited, receiving seed paddy as part of the out-grower network (Hayleys 2022). Over 10,000 farmers directly supply Cargills with fresh milk, fruit and vegetables through dozens of collection stations located around the country. Direct contracts with corporate entities, such as Hayleys and Cargills, replace local middlemen that many farmers once relied on for marketing produce. There is little comparative analysis demonstrating the extent to which corporate connections improve the welfare of agricultural workers and their families compared with the general middleman model. Senevirathna's research (2018) shows that corporate partnerships do very little to lift agricultural producers out of poverty, as they tend to work with already-privileged, asset-owning farmers rather than include the poorest of the poor in their projects.

Nestle Lanka is a well-established corporate actor in the dairy sector, guaranteeing a regular income for milk producers and strengthening dairy value chains. Wijayasinghe and Sachitra's (2021) research found that dairy farmers were pleased with the assistance and knowledge received from their corporate buyers and recognized new local employment opportunities along the value chain such as positions at collection and chilling centres, which improve local incomes.

Corporations provide technical assistance, financial support, educational programmes, and infrastructure such as transportation and storage all of which improve production and therefore worker incomes. Corporate field officers encourage and inspire farmers to perform well and assist them through difficult growing conditions. As such, corporate projects transform smallholder farmers and others working in agriculture into agri-entrepreneurs who produce high-end products for both urban consumers and for export.

Targets for Climate-Change Related Agricultural Innovations

Given climate change effects and their implications for national food security and agricultural livelihoods, donor agencies such as the United States Agency of International Development (USAID) and the World Bank are making investments that promote being climate-resilient and climate-smart. These donors and their partners target women's development committees,

early-stage entrepreneurs, and market-driven private sector actors with educational and financial resources for climate change adaptation and to manage climate-related risks (USAID 2021). NGOs may compete for donor funds to engage with agricultural communities and deliver goods and services that 'de-risk' (USAID 2022: 4) agriculture livelihoods. Some smallholders receive free seeds, sprinkler systems, and agricultural extension services (World Bank 2021). They are targets of donor-sponsored 'nudging tools (advocacy, demonstration, peer influence and peer pressure)' to encourage the use of 'solar-based irrigation' systems (Lhamtshok 2022).

With new investments in the agriculture sector, farmers will have access to more affordable insurance schemes to protect against crop losses, financial services to invest in climate-smart technology, and climate resilience warehouses to reduce post-harvest losses. Farmers will participate in and benefit from agriculture projects that pilot new climate-smart agriculture technologies and technological applications, such as real-time, agro-meteorological information, precision sensor technology for water management, digitalization of public services, and digital market platforms that link farmers and buyers (USAID 2022; World Bank 2022b).

Targets for Empowerment, Equity, and Inclusions

Women working in agriculture, those living in former conflict-affected areas, and leading women-headed households are targets of international donor agencies and corporate gender equity and empowerment programmes. Nestle Lanka specifically seeks to recruit women into dairy farming, with women in the Northern Province particularly active in that enterprise. In seeking to transform women into agri-entrepreneurs, USAID programmes, for example, seek to move women with small backyard poultry operations into commercial-scale production to supply boiler chickens to local markets and increase their income in the process. Women farmers indicate that direct links between them and private sector buyers via project-facilitated value chains allow them to receive payments directly rather than through men who normally market produce (USAID 2017). Women directly receiving income is a proxy indicator for control over income and an indicator of women's empowerment.

As the older generation moves away from agricultural lifestyles and young people seek jobs in urban areas, the government and donor agencies are finding ways to make agriculture and an agricultural-based lifestyle attractive to young people. Donor agencies target youth in their agricultural programming to develop the sector and appeal to their 'business orientation' and skills by providing Internet-based technical knowledge, hopefully increasing agriculture's share of the national Gross Domestic Product.

Conclusions: Gaps in the Literature

There is a rich ethnographic tradition in Sri Lankan Studies scholarship that focuses on agricultural work, kinship networks, land tenure, and inheritance systems, providing insights into the social, economic, and political contours of rural society (Leach 1961; Gunasinghe 1992). Contemporary scholarship, especially since the end of the war in 2009, tends to focus on the challenges of working in agriculture, the national and internationally sponsored programmes, and interventions created to respond to such challenges as well as local community-based initiatives to cope with climate change. Agricultural workers and their rural-dwelling family members face health risks associated with agrochemical use and chemical contamination of drinking water and economic risks associated with crop failure. With globalization, industrialization, and now climate change effects, men and women pursuing agricultural work continue to consider the opportunity costs of working in agriculture versus working in a free trade zone, migrating to work abroad as unskilled

labour, whether to encourage their children to follow in their footsteps or whether to migrate within the country to pursue new agricultural opportunities created in the North and East with the war's end (Caron 2020; Klem and Kelegama 2020).

Researchers and practitioners producing working papers, policy briefs, and other products that constitute the 'grey' literature focus more on production issues and policy formulation to support and increase production. More contemporary ethnographic studies with rich narrative descriptions that introduce readers to the multiple life worlds of agricultural workers from a first-person perspective and resonate with village-level, case study scholarship is needed to balance the instrumental view of farmers that policymakers and donors often take. Important questions to ask about the life worlds of agricultural workers include, but are not limited to: How do farmers grapple with and how to they understand the risks associated with climate change and agriculture-based livelihoods (either slow onset or extreme weather events)? How do farmers and women with 'backyard operations' make decisions about participating in the range of corporate or private-sector programmes created for them or do they consider themselves excluded from private-sector opportunities and if so, why?

There are not many quantitative, sex-disaggregated studies that focus on men's and women's participation in the sector whether as daily wage labourers or as contractors holding longer, fixed-term agreements. With respect to the rise of agri-entrepreneur programmes, agri-business contracts, and the strengthening of value chains, there is a need for robust studies about these programmes that focus on worker or farmer perspective on private sector treatment and working conditions. Such research would not only be in the service of improving private-sector engagement and agricultural worker livelihoods but also shed light on how privatization, neoliberal reforms, and the post-COVID-19 economic crisis are unfolding in Sri Lanka and affecting agricultural smallholders and workers. Most of the information about agri-entrepreneur and agri-business programmes originates in the grey literature such as donor evaluation reports or press releases that tend to profile the model participant and use 'cherry-picked' quotes from beneficiaries to emphasize project success. Lastly, there needs to be follow-up research on donor-funded projects. For example, how does and to what extent can a smallholder who participated in a donor-funded intervention that increased their backyard operations by 537%, moving from 37 to 237 boiler chickens according to (USAID 2017), sustain such enterprises independently, without project support.

The scholarship reviewed here focuses more on production issues and policy formulation to support and increase production. There are very few contemporary ethnographic studies with rich narrative descriptions that take readers into and introduce them to the world of agricultural workers. Important questions to ask about the life worlds of agricultural workers include, but are not limited to: What are the factors that farmers consider about whether to move out of smallholder agriculture and into wage labour or migrate abroad? How do they understand the risks associated with climate change and agriculture-based livelihoods? How do farmers and women with 'backyard operations' make decisions about participating in the range of private-sector programmes created for them or do they consider themselves excluded? These are areas of research that remain to be done by future generations of scholars.

Note

1 One risk associated with such donor interventions is rural indebtedness. Smallholders often find themselves borrowing financial capital to make the required entrepreneurial investments that participation project requires. When entrepreneurial activities fail, smallholders must find some way to settle the debt associated borrowing start-up capital, which often involve taking out another loan (de Silva 2021; de Soysa 2021).

References

A Subsistence farmer (2021) "The Organic Fiasco: A farmer's view" (11 March). Accessed on 21/11/2022. Available at https://groundviews.org/2021/11/03/the-organic-fiasco-a-farmers-view/

AFP (2022) "Sri Lanka to pay $200m compensation for failed organic farm drive" (26 January). Accessed on 19/11/2021. Available at https://www.aljazeera.com/news/2022/1/26/sri-lanka-200-million-compensation-farmers-organic-crops-drive

Asian Development Bank (2016) *Sri Lanka: Gender Equality Diagnostic of Selected Sectors*. Accessed on 19/11/2021. Available at https://www.adb.org/documents/sri-lanka-gender-equality-diagnostic-selected-sectors

Burchfield, Emily K. and Jonathan Gilligan (2016) "Agricultural Adaptation to Drought in the Sri Lankan Dry Zone" ***Applied Geography*** 77: 92–100. http://dx.doi.org/10.1016/j.apgeog.2016.10.003

Caron, Cynthia M. (2020) "Gendering Work and Labor in the Agriculture Sector, a Focus on South Asia" In ***The Handbook of Gender in Asia*** S. Huang and Kanchana N. Ruwanpura (eds) Cheltenham: Edward Elgar Publishing, pp 185–202

de Silva, Nedha (2021) "Rural Women Demand Relief from Vicious Cycle of Debt" **Groundviews** (April 2021). Accessed on 23/11/2022. Available at https://groundviews.org/2021/04/03/rural-women-demand-relief-from-the-vicious-cycle-of-debt/

de Soysa, Minoli (2021) "Drowning in Debt, Women Farmers Take a Firm Stand" **Groundviews** (April 2021). Accessed on 23/11/2022. Available at https://groundviews.org/2021/04/06/drowning-in-debt-women-farmers-take-a-firm-stand/

Gunasinghe, Newton (1992) "Transformation and Trajectories of Agrarian Systems in Jaffna and Nuwara Eliya Districts" In ***Agrarian Change in Sri Lanka*** James Brow and Joe Weeramunda (eds) New Delhi: Sage, pp 131–154

Gunawardana, Samanthi Jayasekara (2018) "Rural women's participation and recognition in sustainable agricultural livelihoods across their life-course, in post-war Sri Lanka" Oxfam-Monash Partnership. Accessed on 10/10/2021. Available at https://www.monash.edu/__data/assets/pdf_file/0010/2482804/rural-sri-lankan-women-in-agriculture-executive-summary-english.pdf

Hayleys (2022) A significant contribution to sustainable farming by Hayleys Agro Farms (Pvt) Limited. Accessed on 06/11/2021. Available at https://www.hayleys.com/a-significant-contribution-to-sustainable-farming-by-hayleys-agro-farms-pvt-limited/

Kalansooriya, C.W. and D.P.S. Chandrakumara (2014) "Women's Role in Household Food Security in Rural Sri Lanka" ***International Journal of Multidisciplinary Studies*** 1(1): 41–54

Klem, Bart and Thiruni Kelegama (2020) "Marginal Placeholders: Peasants, Paddy and Ethnic Space in Sri Lanka's Post-War Frontier" ***The Journal of Peasant Studies*** 47(2): 346–365. https://doi.org/10.1080/03066150.2019.1572604

Knipe, Duleeka W., David Gunnell and Michael Eddleston (2017) "Preventing Deaths from Pesticide Self-Poisoning – Learning from Sri Lanka's Success" ***The Lancet*** 5(7): E651–E652. Accessed on 21/11/2022. Available at https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(17)30208-5/fulltext

Lamontagne-Godwin, Julien, Frances Williams, Willoru Mudiyansele Palitha Thilakasiri Bandara and Ziporah Appiah-Kubi (2017) "Quality of Extension Advice: A Gendered Case Study from Ghana and Sri Lanka" ***The Journal of Agricultural Education and Extension*** 23(1): 7–22

Leach, Edmund R. (1961) ***Pul Eliya A Village in Ceylon: A Study of Land Tenure and Kinship*** Cambridge: Cambridge University Press

Lhamtshok, Tshering (2022) ***Innovation in Climate-Smart Agriculture.*** Asian Disaster Preparedness Center (ADPC). Accessed on 23/11/2022. Available at https://www.adpc.net/cic/index.php/2022/04/15/innovation-in-climate-smart-agriculture/

Ministry of Plantation Industries and Export Agriculture and Ministry of Agriculture (2020) ***Environmental Assessment & Management Framework: Agricultural Sector Modernization Project.*** Submitted to the World Bank. Accessed on 15/09/2021. Available at https://documents1.worldbank.org/curated/en/135291593168689920/pdf/Environmental-Assessment-and-Management-Framework.pdf

Muggah, Robert (2008) ***Relocation Failures in Sri Lanka: A Short History of Internal Displacement and Resettlement*** London and New York: Zed Book

Munas, Mohamed and Gayathri Lokuge (2013) ***A Livelihood and Market Study of Resettled Communities in the Eastern Province*** Colombo: Centre for Poverty Analysis

Nordhaus, Ted and Saloni Shah (2022) "In Sri Lanka, Organic Farming Went Catastrophically Wrong" ***Foreign Policy***. Accessed on 05/03/2022. Available at https://foreignpolicy.com/2022/03/05/sri-lanka-organic-farming-crisis/

Patel, Raj and Jason W. Moore (2017) ***A History of the World in Seven Cheap Things*** Berkeley: University of California Press

Presidential Secretariat (2021) "Importation of chemical fertilizers will be stopped completely" (22 April). Accessed on 18/09/2022. Available at https://www.presidentsoffice.gov.lk/index.php/2021/04/22/importation-of-chemical-fertilizers-will-be-stopped-completely/

Rathnayaka, R.M.S.D. and J. Weerahewa (2015) "An Analysis of Gender Differences in Intra-Household Time Allocation of Rural Farm Families in Sri Lanka" ***Tropical Agricultural Research*** 26(4): 677–683

Rathnayake, Sanduni, David Gray, Janet Reid and Thiagarajah Ramilan (2022) "The Impacts of the COVID-19 Shock on Sustainability and Farmer Livelihoods in Sri Lanka" ***Current Research in Environmental Sustainability*** 4: 1–11. https://doi.org/10.1016/j.crsust.2022.100131

Senanayake, Nari (2022) ""We Are the Living Dead", or, the Precarious Stabilization of the Liminal Life in the Presence of CKDu" ***Antipode*** 54(6): 1965–1985

Senevirathna, Priyan (2018) "Creating Shared Value through Partnership in Agricultural Production in Sri Lanka" ***Geoforum*** 90: 219–222

Upali, Pannilage (2017) "A Socio-Economic Analysis on the Gender Wage Gap among Agricultural Laborers in Rural Sri Lanka" ***American Scientific Research Journal for Engineering, Technology and Sciences*** 30(1): 338—335

USAID (2017) ***Final Performance Evaluation of USAID/Sri Lanka Supporting Opportunities for Livelihood Development (SOLID) Activity*** Washington: USAID. https://pdf.usaid.gov/pdf_docs/PA00N3ZQ.pdf

USAID (2021) ***Climate Change Adaptation Sri Lanka***. Accessed on 18/11/2022. Available at https://www.usaid.gov/sites/default/files/2022-05/USAID_Sri_Lanka_EG_11-2021_-_Climate_Change_Adaptation.pdf

USAID (2022) ***Annual Program Statement USAID Climate Adaptation Project Sri Lanka (CAP-SL-APS-001)***. Washington: USAID. Accessed on 18/11/2022. Available at https://sharena11.springcm.com/Public/Folder/22197/56005e47-f001-ed11-9c55-ac162d885f33/18f0e818-f901-ed11-9c55-ac162d885f33

Utyasheva, Leah and Michael Eddleston (2021) "Prevention of Pesticide Suicides and the Right to Life: The Intersection of Human Rights and Public Health Priorities" ***Journal of Human Rights*** 20(1) 52–71. https://doi.org/10.1080/14754835.2020.1850241

Wickramasinghe, Nira (2014) ***Sri Lanka in the Modern Age: A History*** Oxford and New York: Oxford University Press

Wijayasinghe, Sachin and Vilani Sachitra (2021) "Corporate Citizenhsip Behaviour and Rural Livelihoods: A Study on Multinational Corporations in Sri Lanka" ***Vidyodaya Journal of Management*** (7)1: 81–104. https://doi.org/10.31357/vjm.v7i1.4910

Wipulasena, Aanya and Mujib Mashal (2021) "Sri Lanka's Plunge into Organic Farming Brings Disaster" ***The New York Times*** (12 July). Accessed on 01/03/2022. https://www.nytimes.com/2021/12/07/world/asia/sri-lanka-organic-farming-fertilizer.html

World Bank (2021) Result Briefs: Climate Smart Irrigated Agriculture Project Helped Sri Lanka's Smallholder Farmers Weather the COVID-19 Pandemic. Accessed on 20/11/2022. Available at https://www.worldbank.org/en/results/2021/04/19/climate-smart-irrigated-agriculture-project-helped-srilanka-smallholder-farmers

World Bank (2022a) Dataset. Accessed on 20/10/2021. Available at https://data.worldbank.org/country/sri-lanka?view=chart

World Bank (2022b) "Speeches & Transcripts. Knock 2022 Conference: The Doorway to Success with a special theme on Agriculture, Dairy and Fisheries" (15 February). Accessed on 20/10/2022. Available at https://www.worldbank.org/en/news/speech/2022/02/15/knock-knock-conference-2022-the-doorway-to-success-with-a-special-theme-on-agriculture-dairy-and-fisheries