

## Food Security Challenges During and Post Movement Restrictions of COVID-19 in Southeast Asia

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Following the global health crisis brought about by the SARS-CoV-2 coronavirus which causes COVID-19, food security has become or will become an issue in most countries. At the time of writing this article, more than 400,000 people have died and almost 8 million people have been infected by the coronavirus worldwide<sup>1</sup>. Most countries have some form of movement restrictions in place, as a public health measure to 'flatten the curve', i.e., to slow down the community spread and thus avoid overwhelming the capacity of health services to treat patients. The movement restrictions range from the more severe mandatory geographic quarantines to the less severe non-mandatory advisory to stay at home, closure of businesses not deemed

essential for a defined duration, and bans on events and gatherings. Some countries were more successful than others in enforcing movement restrictions. In most countries, the end of the movement restrictions was done in stages, with various social and economic activities allowed to be resumed at different stages.

In the Southeast Asian region, countries have different severities of restrictions. In mainland Southeast Asia, parts of Thailand had varying degrees of shutdowns with Bangkok declaring a partial shutdown from 22 March to 12 April<sup>2</sup>. In Myanmar, Mandalay shut all businesses except essential businesses and prevented entry and exit from the city from 7 to 21 April<sup>3</sup>. In Vietnam, the government

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ordered a nationwide isolation from 1 to 15 April<sup>4</sup>. Laos enforced a lockdown from 30 March to 3 May<sup>5</sup>. In Cambodia, travel restrictions across provinces and between districts outside of the capital were restricted from 8 to 16 April<sup>6</sup>.

In maritime Southeast Asia, Malaysia used existing laws to enforce a 'movement control order' from 18 March to 4 May<sup>7</sup>. Singapore announced a 'circuit breaker' from 7 April until 1 June<sup>8</sup>. Indonesia did not have a nationwide lockdown; its regions started 'large-scale social restrictions' between April and May. Some regions are still maintaining their movement restrictions and some regions have ended theirs<sup>9</sup>. In the Philippines a lockdown was announced in Metro Manila from 15 March to 15 May<sup>10</sup>. Other regions imposed their own community quarantine<sup>11</sup>. Timor-Leste declared a state of emergency on 28 March but avoided an extensive and complete lockdown<sup>12</sup>. Papua New Guinea declared an emergency in certain provinces from 22 March to 2 June<sup>13</sup>.

In most countries, movement restrictions excluded transportation and movement of food and agricultural produce. However in reality, the supply chain of food from farm to table was disrupted. Supermarkets and hypermarkets have their own robust supply chain to maintain a constant supply of food and agricultural produce on their shelves.

They achieve this by ownership of farms or contract farming. However many consumers in Southeast Asia do not get their food supplies from supermarkets and hypermarkets. For example, in Malaysia, supermarkets and hypermarkets made up 43 percent of the nationwide retail food market, with the remaining 56 percent of the food retail sector was shared by provision shops, grocery shops, sundry shops, markets, weekly pop-up markets, roadside stalls, and mobile vendors<sup>14</sup>. It is the latter supply chains that were disrupted during the movement restriction orders. These had been the main sources of affordable and accessible food for a large segment of lower income consumers in the pre COVID-19 pandemic. These were also supplied by mostly smallholder farmers who were not part of the supermarket and hypermarket contract farming system. These smallholders might have lacked the necessary documentation to be identified as farmers, which was necessary to go through security checkpoints set up to enforce movement restriction orders. They also lacked a suitable method of transportation to take their produce to the consumers.

During movement restriction orders, in some cases, the usual middlemen might not possess the necessary paperwork that identifies them as such. In some other cases, middlemen who purchased in bulk for

distribution to restaurants and exporters did not collect agricultural produce from smallholder farmers, because the bulk of their customers who purchased in large volumes stopped doing so. At the beginning of movement restriction orders, the established supply chain, whether government agencies or private intermediaries were not viable. This unprecedented pandemic disrupted the normal routine of almost all economic sectors never seen since the Second World War. Whilst the established intermediaries reconfigured their operations and governments scrambled to ensure food security, smallholder farmers lacked the appropriate paperwork, networking, communication, assets, pricing strategy know-how, and financial resources to move their vegetables and fruits to where the highest demands were, i.e. household consumers. That meant the small, but collectively significant, supply of vegetables and fruits to retail sectors other than supermarkets and hypermarkets disappeared as the movement restriction orders lengthened into weeks. Smallholders collectively contribute towards a large portion of agricultural produce in Southeast Asia. The chain of events resulted in unsellable rotting vegetables and fruits in the hands of smallholder farmers, vegetables and fruits unavailable and inaccessible to consumers who did not usually shop in supermarkets and hypermarkets, and increased price of

vegetables and fruits potentially making them unaffordable to some consumers. At the same time, smallholders who have lost an entire harvest might not have the capital to replant the next batch of produce without an aid scheme, as their cash flow is dependent on the turnaround of profit from the previous harvest.

Food security during and post COVID-19 pandemic in Southeast Asia has many intersections. One of the proposed solutions for farmers to reach household consumers is digital marketing. With the exception of Singapore, the region has many suburban and rural areas where internet structures and services are minimal to almost inexistent. Proprietary apps or freeware that connect smallholder farmers with their potential customers might be inaccessible to farmers in rural areas. Although there might be a feeling of disappointment among farmers of middlemen abandoning them during the movement restriction orders, the paradigm shift required for farmers to supply directly to household consumers might not occur naturally. Government agencies and private intermediaries might still wish to use the old supply chain model of farmers – middlemen – consumers. They might try to move to a digital platform, but this relationship might perpetuate because to many players in the industry, this supply chain model is 'tried and

tested'. There might be potential resistance from farmers to adopt a new supply chain model of farmers – consumers after the movement restrictions are rescinded. Although the new model might offer a higher profit margin for farmers, proponents of the old supply chain might make it the 'preferred' choice by default, despite its failures to move supply from farmers to consumers during the movement restriction period. On top of all these, there is still the unresolved issue of a lack of reliable internet connectivity in rural areas where most smallholder farmers are. Therefore, digital poverty might further disadvantage smallholder farmers in whichever post pandemic approaches. After the movement restriction orders are rescinded, food security for middle- and upper-income households might not be an issue, but the livelihood of smallholder farmers might not improve, or might be worse off than before the pandemic. Smallholder farmers, daily waged workers, the unemployed and those made unemployed by the pandemic constitute a large number of low income consumers who will almost certainly face some form of food insecurity.

In high income countries, there are calls for economic activities, including agricultural activities to be more sustainable when the countries emerge from their imposed shutdown. The proposal is to reboot the economy and take into account climate issues. Various research groups have modelled food security

for countries and regions to better predict and mitigate for any disruptions brought on by climate change. However their recommendations might not have been adopted into policies. Post COVID-19 pandemic, food security planning must take into account climate changes and the livelihood of smallholder farmers, other than issues of availability, affordability, accessibility, utilisation and cultural acceptability. Generally Southeast Asian countries have yet to achieve resilience to climate change. The COVID-19 pandemic is an unfortunate but timely reminder of the need to look into the adaptability of agricultural practices for sustainable usage of natural resources and climate change.

In the pre-pandemic scenario, Singapore had the best food security in Southeast Asia based on the Global Food Security Index (GFSI), despite having the smallest land size of all Southeast Asian countries. One fifth of Cambodia's land is arable<sup>15</sup>, however it had a much lower GFSI score for affordability (56.7) compared to Singapore's (95.4). However Singapore's dependence on food imports gave it a natural resources and resilience GFSI score of 42.4 compared to Cambodia's 53.3. In comparison, countries with better policies to mitigate effects of climate change like Finland, Denmark and New Zealand have a GFSI score of >70 for natural resources and resilience<sup>16</sup>.

Without credible climate projection, countries have been caught off guard and were less prepared than they could have been when deciding to implement movement control orders. This is not a critique on the timing of the orders, but rather the preparation that could have been put in place in the weeks and months prior to the arrival of COVID-19 in Southeast Asia. For example, in Malaysia, the peak of the movement control order and closure of international land borders coincided with the end of the monsoon season, which was also the harvest season. This contributed to huge piles of vegetable and fruit harvests from smallholder farmers that could not be moved to the retail and export markets, thus rendering them useless. Moving forward, any long term policies and strategies to ensure food security should embed the crucial climate projection and considerations. These should be the basis of the advisory to smallholder farmers on initiation of planting cycles. This advisory should also be made public and accessible to households who wish to plant edible gardens for their personal consumption. During the pandemic, globally, there were many reports of people spending their time at home in isolation by planting edible gardens. Such activities do improve food security. However its sustainability might be questionable when most people return to their routine jobs.

Nevertheless, climate information should be made available to households who wish to maintain an edible garden in the new normal post pandemic.

Post pandemic, as governments become more nationalistic to protect their own agricultural produce for domestic consumption, combined with challenges brought about by climate change, food security policy makers should look into increasing the livelihoods of smallholder farmers which form the bulk of Southeast Asian agriculture. On the international stage, there were calls for governments to be less nationalistic and to work across countries to address global food security. Whilst these calls should continue and political leaders should heed them and communicate with their electorates, researchers and policy makers should continue to advise for more consideration for climate, sustainability and livelihood of smallholder farmers when addressing food security. These would help ensure food security for society at large as well as for smallholder farmers, who might form the bulk of society in certain countries.

One of the areas where livelihood of smallholder farmers could be improved is the introduction and/or increment in agricultural extension work. One form of extension work that could be introduced is small scale food processing that would extend the shelf life of harvests, stabilise prices for farmers when

there is a surplus harvest, and monetise farm work. The last point could prove to be a game changer for farm work that had often been unpaid. Unpaid work is often done by women, which results in inefficient distribution of family resources, which in turn could have an effect on household level food security. Between 1980 and 2010 in Southeast Asia, women farm workers constituted about 50% of the total population who were economically active in agriculture<sup>17,18</sup>. The flaw with such statistics is that they did not take into account unpaid work which was performed mostly by women<sup>19</sup>. By 2019, the United Nations Economic and Social Commission for Asia and the Pacific policy paper continued to list women and indigenous women in agricultural activities as areas requiring further work to achieve the second Sustainable Development Goal of ending hunger, achieving food security, improving nutrition and promoting sustainable agriculture<sup>20</sup>. Social workers have noticed that when what little money available was held by women, food security for every household member improved<sup>21</sup>.

Southeast Asia has a high volume of foreign worker migration to and within the region. Agricultural work is one of the key sectors that utilise foreign labour, other than manufacturing, hospitality and construction. Irregular migration occurs alongside regular migration. Migrant workers in agriculture and

other sectors have to be accounted for when working on food security policy. Remedies often depend on the socio-political situations and differ from country to country. During movement restriction periods, migrant workers were usually left out from food aid meant for citizens who have lost their income as a result of the pandemic. In some countries, food security of non-citizens during the movement restriction periods were left to philanthropic and concerned individuals and non-governmental organisations.

For the brave new world post pandemic, it is necessary for stakeholders to try new supply chain models. Existing supply chains could undoubtedly be improved, but if anything, this pandemic should have taught us to not put all our eggs in one basket. It is crucial to have policy responses that could support old and new challenges in agribusiness and the livelihoods of agricultural workers, most of whom are women, and in certain countries, made up of large number of foreign workers who might not enjoy labour standards equitable to citizen workers. Addressing food security for all should include the lowest denominator that are most vulnerable, which in many places are low income households including smallholder farmers, women and particularly low income women, and foreign manual workers.

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