

## Spotlight: Econ Op-eds in Summary

Week ended 27<sup>th</sup> October '21

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### In Summary

*The underneath contains summaries of the articles given above, including key extracts from these articles.*

#### **1. Organic agriculture in Sri Lanka: Are we going down the slippery slope?**

**By: Professor Gamini Herath**

- Sri Lanka banned the use of chemical fertilizer earlier this year in a bid to move toward fully organic farming. The upcoming harvesting season is under threat, with current imports of organic fertilizer being insufficient to generate sufficient crop yield.
- Organically grown food may not necessarily be healthy, would generate less yield, and is more labour-intensive with farmers needing extensive effort to learn and adopt best practices for it. Raising yield requires large amounts of organic materials which are difficult to source and would only lead to higher levels of inflation and highlights the need for price competition.
- To make the shift to organic fertilizer a success, organic crops must be introduced in only select market segments to only be supplementary to conventional farming and the ban on chemical fertilizer must be withdrawn. To avert a crisis, policy makers must listen to learned scientists on the matter carefully balance the tradeoffs of using organic fertilizer.

Sri Lanka unexpectedly banned the use of chemical fertiliser in 2021 to encourage organic agriculture. This decision came as a bolt from the blue for farmers and is certainly destined for total disaster.

Organic farming should be established in a bottom-up process based on farmers' traditional knowledge, their experience and awareness and adaptability to the ecological environment. A long planning period is of the essence here.

In organic farming, a major philosophical shift in thinking, attitudes and perspectives by the farming community is imperative. But the big bang approach adopted in Sri Lanka to encourage organic farming will be down the slippery slope very soon, as I argue below.

#### **What is organic agriculture?**

The term "organic" is a process and function within a farming system – not the chemical nature of the fertiliser materials used. This complex biological system in organic farming excludes monoculture, synthetic fertilisers and pesticides detrimental to our land, water and health. But we must understand that organic agriculture alone cannot feed Sri Lanka.

However, many policymakers in Sri Lanka believe that organic farming is the substitution of compost for chemical fertiliser. But to unlock the real potential of organic agriculture, a clear understanding of ecosystem functions is essential.

#### **Conventional agriculture and shift towards organic farming**

Conventional agriculture uses chemical fertilisers to fertilise plants directly to obtain high yields but depleted soil nutrients. Farmers applied higher levels of chemical fertilisers and pesticides. Over time, fertilisers and pesticides have exhausted the regenerative capacity of agricultural land.

### **Future food needs and Sri Lanka's response to the challenge**

In the next 40 years, the growing population will result in an increased demand for agricultural products. **Agricultural production need to increase by at least 100% until 2050.** This is a serious challenge for Sri Lanka because land, water, and other natural resources are becoming scarce and changes in agricultural systems and technologies are necessary.

It is needless to say that Sri Lanka embraced, post haste, organic agriculture without understanding the complexities to become the 100% organic nation in the world. The kind of gradualism seen in other countries was not followed by **Sri Lanka which decided to jump immediately into deeper waters only to sink, a critical policy error.**

### **Why Sri Lanka will be down the slippery slope in organic farming**

#### (a) Lack of proper planning

The introduction of organic farming to make it 100% organic without adequate planning by experts is a perfect recipe for chaos and will be a pipe dream. It can exacerbate current crisis in the agricultural sector, because organic agriculture was introduced for important staple crops such as rice and export crops such as tea and rubber.

Sri Lanka needs to focus on short-term and long-term food security, alleviation of poverty and good health for the population. A gradualist approach is the only way to have some limited extent of organic farming but this will never be the dominant form of agriculture in Sri Lanka. Sri Lanka must examine international experience, type of markets, and lessons learnt on adoption and adaptation of organic agricultural technologies instead of force feeding organic farming to the farming community.

The forthcoming Maha season is under threat and the import of 96,000 MT of organic inputs in granular form, containing 10% of nitrogen from China will not help. A ton of imports costs around \$ 300. Poor planning led to many misadventures such as detecting pathogenic bacteria, such as Erwinia in imported organic fertiliser. The tests carried out by the Sri Lanka Standards Institution (SLSI), the National Plant Quarantine Service (NPQS) and the Sri Lanka Atomic Energy Board.

#### (b) Ignoring the scientific nature and complexity of agriculture

Agricultural systems are complex and we need to view agriculture within biophysical, social-ecological, environmental political environment. Agriculture operates in a complex multifunctional environment. Agriculture is not homogeneous and individual farmers work in different micro-climates, need different kinds of inputs, and are likely to respond to policy interventions in different ways with multiple outcomes. One size fits all will not work.

**Tea, sugar, and paddy are fundamentally different crops and must be treated separately.**

Organic farming will be adopted at different rates by farmers with significantly different outcomes (yield per hectare, equity etc.). Complex heterogeneous systems continually adapt and evolve and this transition may take several years (at least 10 years). Sri Lanka needs to understand this complexity to drive future agriculture along the correct

trajectory. But Sri Lanka cannot achieve 100% organic agriculture and at most it may be 10% over a 10-year period for some selected crops.

(c) Primacy of politics and incompetence of relevant ministers

The President appointed several ministers for agricultural development with crisscrossing, overlapping mandates. These ministers for very good reasons failed to understand the interconnectedness between organic farming, rice and paddy prices, within a holistic integrated management system.

State involvement in organic production can also lead to State entrepreneurs capturing market premiums (e.g. only two Sri Lankan firms import organic fertilisers to Sri Lanka).

(d) Organic agriculture gives lower yields compared to conventional agriculture

Organically grown food is not necessarily healthy. Some British studies found that there is no difference in nutrient quality between organic and conventional foods. Organic farming is labour-intensive and unfamiliar to farmers, requiring extensive effort to learn best practices. Significant loss of yields can occur unless education and support is given to build systems that produce sufficient yields for farmers.

The research experience in many countries show that organic yields are 25% lower than conventional yields. Kniss et al. (2016) found yields on organic farms are 20% lower than on conventional farms. Hence organic products will have a higher costs per unit of output and thus higher prices. Experimental yields are often higher than those in real-world agriculture but farmers cannot replicate these management practices. Organically fertilised systems require higher nitrogen inputs to achieve high yields because organic nitrogen is less readily available to crops. Organic farming is more knowledge intensive, and yields depend on timely management interventions. The higher knowledge requirements and the relatively low levels of education of farmers in Sri Lanka need to be recognised.

Organic methods can reduce yield of tea in Sri Lanka which brings in more than \$ 1.25 billion a year and 10% of Sri Lanka's export income. Land used for conventional agriculture for long periods cannot be immediately transferred to organic farming. Conventional agriculture which uses inorganic fertilisers need at least three years to convert conventional agricultural land to organic agriculture and rehabilitation of such soils for several years is required to produce yields comparable to conventional tea.

Tea fields which used chemical fertiliser may need about three years to be converted to 'organic' farms with dire consequences for the tea industry. Nearly 89% of Sri Lanka's tea and rubber plantations rely on chemical fertilisers. For rice the same argument applies. Using organic fertiliser in depleted land require more organic fertiliser and this may lead to higher cost of production. Chemical fertiliser may be needed during the transition period to organic agriculture which Sri Lanka completely ignored.

Just this week, the Minister of Plantation Industries admitted that tea production has fallen and that they have already ordered 100,000 tons of ammonium sulphate for the tea industry. So we are going against the ban and lack of planning is clearly evident. A study conducted by United Planters Association of South India, has found in 2013 that organic tea production will generate at least 30% of lower yields. The cost of production will increase by 30 to 40% as a result of lower yields.

Gamini Peiris found after many years of experimentation, organic fertiliser did not give comparable yield of sugar cane and organic fertiliser is not appropriate for sugar cane in Sri Lanka. A new study published in Nature concludes that crop yields from organic

farming are generally lower than from conventional agriculture, especially for cereals. Organic farming thus can never replace conventional agriculture.

### **(e) Organic agriculture can threaten food security in Sri Lanka**

More land would be required to produce the same quantity of output with organic methods and hence organic agriculture cannot guarantee food security. Most smallholder farmers in Sri Lanka are poor and spend over 70% of their income on food. Any increase in the price of food is associated with higher levels of food insecurity and malnutrition and spread of poverty. Organic smallholders sell their harvest in conventional markets to local traders at lower prices in return for immediate cash. **Increasing yields requires large quantities of organic material (e.g., manure) not available at the farm itself and the cost can be substantial.** Switching to organic is not always beneficial for smallholders and should therefore not be considered a general strategy for poverty reduction. If larger number of farmers switch to organic practices in Sri Lanka let us say for rice, total output will fall, prices will increase, making food less affordable for poor consumers threatening food security.

**Organic farming today only accounts for 1% of the agricultural land, a full conversion to organic agriculture as envisaged by the government of Sri Lanka is totally unrealistic.** Organic farming cannot spread automatically in developing countries simply using subsidies. Successful early innovations are needed to enhance adoption of OA. More rigorous empirical studies are needed to show that organic farming can be profitable. But with existing support through subsidies, it is less clear whether organic farming could also be profitable without subsidies in the long term.

Sustainable food security needs a combination of organic, conventional, and possibly 'hybrid' systems to produce more food at affordable prices, and reduce the environmental costs of agriculture. Food waste has increased and this is an incredibly complex. If we retain the yield and land-use improvements of conventional agriculture and reduce food waste, we can spare more land for nature.

### **(f) Subsidies, markets and pricing in organic farming**

The use of compensation to reward organic farmers for lost yields is irrational. When we lose production due to organic farming, the prices of food (say rice) will increase. Once we compensate these farmers with money, the purchasing power will increase and this will lead to further increase in prices. Inflation will nudge through the roof. This will affect food security in the country. For traded commodities such as tea, price competition is essential.

Certification of organic products require crops to be grown on organically farmed land at least for three years before they can be labelled organic and this is a cost to farmers. Certification of organic tea is very expensive. And this may affect export markets for Sri Lanka. Tea plantation needs an additional 100 to 150 men per hectare to tend to the fields. **Hence, the use of organic fertilisers, natural pesticides and other permitted substances is uneconomical in the long-term.**

Currently we are being entertained by a very interesting spectacle where plane loads of compost are being imported from India. We also saw nano-nitrogen being imported and plane loads were unloaded with several ministers present.

The market must be understood and allowed to work for agricultural commodities including organic products. Consumers search for new quality organic products and the price may be generally high due to lower yields. **Sri Lanka's 'organic' tea prices may have to rise 75% to compensate the increase in production costs and reduced yields.**

Recovery may take at least three years to achieve. The challenge is how to increase yields and reduce prices for a rapidly increasing population. Farmers may opt for organic agriculture, if there is a strong demand for organic products and premium prices.

### **(g) Ignoring niche markets and other entrepreneurial opportunities**

If properly understood and planned, Sri Lanka could have promoted viable organic opportunities for farmers in niche markets. The gluten-free quinoa in Peru, saraceno grain in Italy, re-introduction of local rice varieties in traditional diets and cultures in Indonesia and promotion of old varieties of rice in Sri Lanka are examples. Agri-tourism or (around farm) and ecotourism for city dwellers, who appreciate healthy rural landscape, creates new income opportunities for organic farmers.

In Sri Lanka, some private tea producers with long term experience have created small organic zones for tea, which they utilise to supply limited demand in niche international markets.

**Why not focus on this without producing organic tea in the whole country? The world demand for organic tea is only 1%.** According to the Rajadurai, "Organic is a certification," "This is a very niche market with many restrictions and specifications are required to get certification. At a commercial scale it is not viable." Another example of a niche market is farmers producing Maya chocolates for tourists in Mexico. Sikkim's tourism sector, benefited greatly from the new organic image: between 2014 and 2017, the number of tourists increased by over 50%.

Organic farming by itself cannot provide sustainable agriculture and food security, but innovative combinations of organic and conventional methods can contribute toward sustainable productivity increases in agriculture. The highly polarised ideological debates between advocates of organic agriculture and advocates of conventional agriculture are totally unproductive. According to Prof. Foley, combining organic and conventional practices can create truly sustainable food systems.

### **(h) Climate change**

Climate scientists agree that our climate is changing and increasingly uncertain extreme weather events can occur. **Approximately 25% of the anthropogenic greenhouse gas (GHG) emissions are attributable to food production.** Evidence suggests that organic agriculture uses less energy per unit of land. But organic farming has lower impacts when expressed per unit of land but not when expressed per unit of output. Overall, the evidence does not support the notion that organic agriculture is more climate friendly than conventional agriculture.

### **Future of organic and conventional agriculture in Sri Lanka**

Ideally, for success in organic agriculture, new varieties are required that are adapted to organic farming systems. In the short run, organic crops must be introduced within selected market segments. But conventional agricultural research is moving away from high inputs of nutrients and chemical pesticides. They now focus on developing crops that can grow in a drought; that can survive in a flood; that can resist pests and disease and higher yields on the same land with less fertilisers. Future research will focus on growing plants that can create their own nutrients to reduce the use of fertilisers and minimises pesticides. The aim is to shift the yield frontier and increase resistance to stress. **The yield gaps may increase with increasing conventional yields because there are slower plant genetic improvements in organic farming.**

This second GR will improve yields of crops grown in infertile soils by farmers with little access to fertiliser. These crops will tolerate low soil fertility and enhance acquisition of

immobile nutrients such as phosphorus and potassium more efficiently. Substantial yield gains in low-fertility soils (e.g. phosphorus efficiency in bean and soybean) improve the productivity of low-input agro ecosystems, and reduce the environmental impacts of intensive fertilisation. These new varieties will almost achieve the objectives of organic farming. Organic agriculture should only be a supplement to these new challenges because organic agriculture cannot feed the world

Organic farming should be part of overall farming in Sri Lanka with conventional farming still at the forefront. The synergies that exist between organic farming and conventional farming systems must be integrated to get a hybrid system. **In many situations, crop productivity and environmental efficiency of organic farming could be further improved by combining with moderate levels of synthetic fertilisers.** The ban on chemical fertilisers must be withdrawn. At the time of writing I heard that the Government decided to import 100,000 tons of ammonium sulphate for tea (has it reversed the ban?).

Enlightened leadership by President Gotabaya Rajapaksa can still provide much-needed support to the agricultural sector to increase food production and fight poverty, inequality, and environmental degradation. However, if he is weak, the massive waves of distrust and fear among farmers will remain a dangerous flash point. The President must use all the knowledge, experience and above all listen to scientists and professionals to carefully balance the conflicting dimensions. **We are on the brink of disaster and Sri Lanka will be down the slippery slope sooner than later.**

For the full article – [Refer Daily FT – Part 1, Part 2](#)

## **2. Amidst pandemic-induced volatility, GSP+ to EU is critical for Sri Lanka** **By A. Sukumaran**

- The loss of GSP+ for Sri Lanka could have a significant impact on the economy and will result insignificant social and human costs. Nearly a quarter of Sri Lanka's total exports goes to the EU. Loss of GSP+ will increase the prices of Sri Lankan goods in Europe and contribute towards possible trade shifts, resulting in cascading negative effects.
- Export industries are the country's biggest employers. During the pandemic apparel industry alone provided steady and uninterrupted employment to many. Loss of GSP+ will affect the rural vulnerable communities most and will increase income inequality. The decision by EU could affect Sri Lankan exports to UK, USA and potential markets of Japan and Australia as well.
- However, Sri Lanka should not depend on the GSP+ entirely in the medium and long term. Export industry is taking many measures at present to diversify the markets. Considering Sri Lanka's economy and low foreign reserves, the government must demonstrate clear commitment in retaining GSP+. In improving the export industry, sufficient stability and protection from economic shocks is much needed.

The recent European Union (EU) monitoring mission visit to Sri Lanka on the Generalized Scheme of Preferences (GSP) Plus trade concessions scheme, has ignited much speculation locally, on the potential costs of losing GSP+ to the EU.

However, many such analyses have significantly underestimated the potential losses, often failing to account for vital factors. Hence, in this article, the Joint Apparel Association Forum (JAAF) – the apex body representing Sri Lanka's apparel sector – seeks to provide stakeholders a comprehensive understanding of the potential costs associated with losing GSP+ to the EU.

Based on available evidence, it is highly probable that this carries heavy economic as well as 'social and human costs' – the latter particularly from a poverty and vulnerability perspective.

### **EU: A vital trade partner**

First, placing the vital importance of EU's GSP+ in context, exports to the EU – Sri Lanka's second largest destination for exports – accounted for nearly a quarter (23%) of Sri Lanka's total export earnings in 2020. This is equivalent to roughly 3.2% of Sri Lanka's entire Gross Domestic Product (GDP) for 2020.

The EU accounts for a large component of the total exports of many of Sri Lanka's biggest export industries. Approximately two thirds (61%) of the country's exports to the EU benefit from GSP+ concessions. While slightly more than half of these are apparel – which accounted for 43% of the sector's earnings in 2020 – EU is also a key market for Sri Lanka's plastics and rubber product exports, vegetable products, machinery and appliances, food, beverages and tobacco.

In fact, industries such as seafood, rubber products, and footwear make even greater utilisation of GSP+ than apparel does (more than 90%, compared with less than 50% for apparel) and hence, as per a local think-tank, would also be highly vulnerable if GSP+ is lost.

Opportunity costs are another consideration. Available data overwhelmingly indicates that the GSP+ scheme is beneficial to countries which are eligible for these concessions. From 2011 to 2017, exports to the EU by GSP+ beneficiaries had increased by 82%.

In Sri Lanka's case in specific, much of the growth that enabled Sri Lanka's apparel industry to achieve export earnings of more US\$ 5.3bn prior to the pandemic in 2019 is attributed to the EU. It's also important to note that that Sri Lanka's competitors, such as Bangladesh for instance, will continue to enjoy these privileges.

### **Far-reaching employment impact**

The implications of a GSP+ loss on local employment are significant even if one were to consider only apparel and food product exports – both of which benefit from the EU GSP+ scheme. The industry has provided steady and uninterrupted employment to around 350,000 apparel workers, while indirectly creating livelihood for an additional 700,000 within the country.

According to the 2019 edition of the Annual Survey of Industries, more than 360,000 people are employed in the food products sector. Even after removing employees of non-export businesses in the food products sector, this would imply that export industries which are significant beneficiaries of EU's GSP+ are also some of the country's biggest employers.

Furthermore, in the case of apparel, nearly 80pc of the employees/associates are predominantly rural women, implying that vulnerable rural groups stand to be disproportionately impacted if GSP+ is lost. This would further exacerbate already high levels of income inequality in the country. SMEs in the apparel sector could also be affected to a greater extent, which too could contribute to inequality.

Academic studies done on loss of GSP+ by Sri Lanka in 2010 have indicated that poverty and income inequality likely increased as a result at that time. A highly respected Sri Lankan trade expert also stated at a public forum few months ago that loss of GSP+ led to around a 1% loss of GDP for the country.

## Trade shifts and beyond

Beyond the above context, it is also important to take into account the likely outcomes of the loss of GSP+ to the EU, to understand the full extent of the costs involved. There are two important factors that should be considered in this regard;

1. likelihood of trade shifts
2. The potential for negative cascading effects (the loss of Sri Lanka's other trade concessions)

Apparel brands and buyers now strongly prefer end-to-end solutions providers. Hence, if Sri Lanka were to lose GSP+ to the EU – which would increase the cost of our apparel by 9.5pc for buyers in the EU – the loss of market share will not be limited to products that receive GSP+ concessions. Buyers could shift en masse to Sri Lanka's competitors, resulting in trade shifts which would be further detrimental to the interests of our country.

Furthermore, there are significant parallels between the conditions under which tariff concessions are provided to Sri Lanka via EU's GSP+ and other similar schemes which Sri Lanka currently benefits from. Hence, if Sri Lanka were to lose GSP+ to the EU, there is high probability of trade concessions to the UK and even USA coming under review. These markets are also vital markets for Sri Lanka's exports – with US and UK collectively accounting for more than one third (34%) of Sri Lanka's national exports in 2020.

In addition, two other markets that the Sri Lankan apparel industry hopes to enter – Japan and Australia – also have GSP schemes, modelled on the EU. Hence, the European Commission's actions could potentially affect those plans.

## Potential loss of FDI

Foreign Direct Investments (FDI) too would be negatively impacted, if GSP+ to the EU is lost.

Fabric processing, which would strengthen the apparel industry's backward integration enabling greater utilization of trade concessions such as GSP+, is one of Sri Lanka's key sectors newly designated for FDI. However, if the country is no longer eligible for trade concessions, questions would arise with regard to the sector's viability. This would carry a significant opportunity cost for the country. Potentially, thousands of employment opportunities – both directly in fabric processing and in the apparel sector which would expand as a result – will be lost, together with millions of Dollars in much-needed FDI inflows.

Loss of foreign exchange earnings from exports, employment and FDI will have cascading impacts that would lead to other negative consequences. For instance, foreign exchange earned from apparel and other exports are essential for Sri Lanka's critical imports – including food, medicine and fuel. Currency depreciation pressure etc. would also exacerbate.

## GSP+ more important than ever

The above indicates that the potential loss of EU's GSP+ would have far-reaching adverse impacts on many fronts that could trickle down to all sectors of the economy. Export industries and the country's economy as a whole have taken a heavy blow from the pandemic. The apparel sector too was significantly impacted and is still grappling with many economic shocks. These include order cancellations and reductions, drop in margins, having to provide longer credit periods to buyers, supply chain disruptions and having to work with reduced staff, in adhering to safety protocols.

Given these challenges, the need for GSP+ is perhaps greater than ever. In this regard, we appreciate the government demonstrating its clear commitment to retaining it. We are optimistic and hopeful that any concerns can be ironed out through constructive engagement.

However, this should not be construed as an indication of the industry relying on GSP+ concessions indefinitely in the medium to long-term. We have put in place concerted initiatives to enhance the sector's competitiveness. This includes developing strategic (as opposed to transactional) relationships with buyers, upgrading research and development capabilities and increasing innovation, developing branded products and efforts to diversify export markets. These are not mere claims by the sector and have been recognized by buyers and even in publications of the World Bank.

Retaining our existing preferential trade concessions together with the initiatives underway to enhance the industry's competitiveness will enable Sri Lanka's apparel industry to achieve its goal of becoming a US\$ 8bn export earner by 2026. This will significantly increase our contribution to the domestic economy in terms of export earnings, employment, technology infusion and investment. The industry is fully-committed to this task but requires sufficient stability, especially protection from further economic shocks at present, to achieve this goal.

[For the full article – Refer The Daily FT](#)

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