

SRI LANKA
Overarching Agricultural Policy

Revised Draft (Final)

Department of National Planning

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ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
AERE	Agricultural Education, Research and Extension
CBSL	Central Bank of Sri Lanka
CC	Cashew Corporation
CEA	Central Environment Authority
CDB	Coconut Development Board
CRI	Coconut Research Institute
DAPH	Department of Animal Production & Health
DAD	Department of Agrarian Development
DEA	Department of Export Agriculture
DOA	Department of Agriculture
DCS	Department of Census & Statistics
DLCG	Department of Land Commission General
DFC	Department of Forest Conservation
DOI	Department of Irrigation
DWC	Department of Wildlife Conservation
ETI	Enabled Trade Index
EUD	European Union Delegation
FAO	Food and Agriculture Organisation of the United Nations
FDI	Foreign Direct Investments
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GoSL	Government of Sri Lanka
HARTI	Hector Kobbekaduwa Agrarian Research and Training Institute
ICT	Information Communication Technology
IPS	Institute of Policy Studies of Sri Lanka
LUPPD	Land Use Policy Planning Department
MASL	Mahaweli Authority of Sri Lanka
MMD&E	Ministry of Mahaweli Development & Environment
MoA	Ministry of Agriculture
MoF	Ministry of Finance
MOPI	Ministry of Primary Industries
MT	Metric Tonne
NAP	National Action Plan
NAQDA	National Aquaculture Development Authority
NARA	National Aquatic Research & Development Agency
NARS	National Agricultural Research System
NDC	Nationally Determined Contributions
OAP	Overarching Agriculture Policy
OECD	Organisation of Economic Cooperation and Development
PA	Protected Area
PC	Provincial Council
PDB	Palmyra Development Board
PIP	Public Investment Programme
PMB	Paddy Marketing Board
RDD	Rubber Development Department
RRI	Rubber Research Institute
SAPRI	South Asia Policy Research Institute
SCPM	Seed Certification and Planting Materials Division

SDGs	Sustainable Development Goals
SLCARP	Sri Lanka Council for Agricultural Research Policy
SPMDC	Seed and Planting Materials Development Centre
TAMAP	Technical Assistance to the Modernisation of Agriculture Programme in Sri Lanka
TBT	Technical Barriers to Trade
TRI	Tea Research Institute
TSHDA	Tea Smallholdings Development Authority
UNFCCC	United National Framework Convention on Climate Change
WB	World Bank
WRB	Water Resources Board
WTO	World Trade Organisation

Overarching Agriculture Policy

1. INTRODUCTION

1.1. Overview

Agriculture in the 21st century fulfils multiple roles and purposes, including producing more food for a growing population, supplying raw materials for expanding industrial and bioenergy sectors, conserving the natural environment and biodiversity and, particularly in many agriculture-dependent developing countries, contributing meaningfully to rural employment, livelihoods and economic development. This overarching agriculture policy document is part of a process intended to better position Sri Lanka's agriculture sector to more effectively and efficiently fulfil its multi-functional roles.

1.2. Global Trends in Agriculture

By 2050 the global demand for food is projected to increase by 50% compared to 2013¹. In part, this increased demand for food will be driven by population growth - by 2050 it is projected that the earth will have 9.7 billion people, representing an increase of 26% from the 2019 population of 7.7 billion². Other major drivers of the demand for food will be urbanisation (68% of global population in 2050 versus 55% in 2018 is projected to be urban³) and the growing size of the global middle-class. It is projected that the global middle class will increase from 3.03 billion in 2015 to 5.41 billion in 2030, with Asia-Pacific accounting for well over half (57%) of the total middle-class consumption market⁴, as shown in Figure 1.

Consumption patterns will continue to change in a process of dietary transition driven by income growth and the growing middle-class, particularly in low and middle-income countries. There will be greater consumption of processed foods, animal proteins, fruits and vegetables, higher demand for food quality and safety, and higher levels of consumption of food (energy) in developing versus developed countries (see Figure 2). At the same time there will be increasing efforts to address some of the negative impacts resulting from great disparities in consumption and diets as reflected in an epidemic of overweight and obesity alongside pockets of undernutrition including stunting, and micro-nutrient deficiencies such as anemia and vitamin deficiencies.

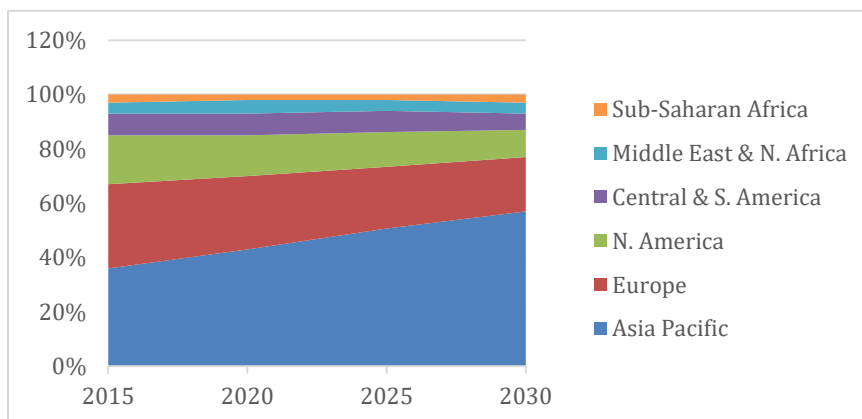


Figure 1. Global Middle-Class Consumption by Region

Data extracted from Brookings institution (2017)

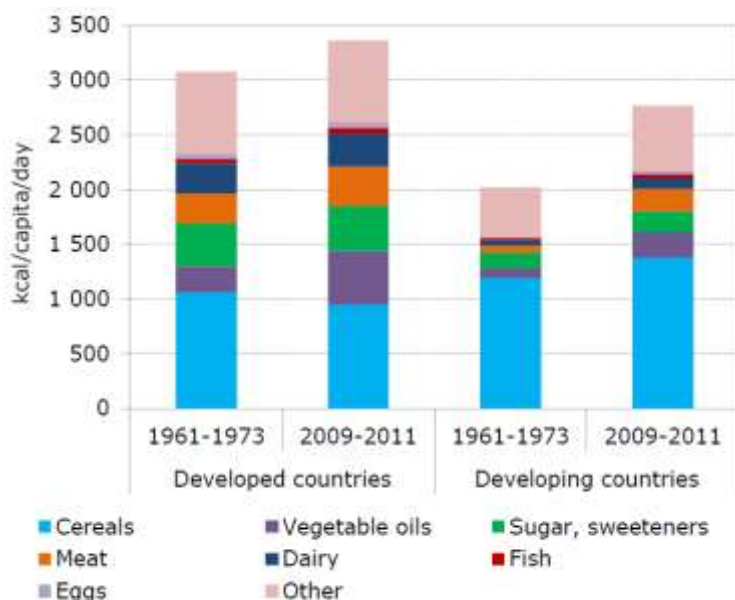
¹ FAO (2017). The Future of Food and Agriculture. Trends and challenges.

² World Population Prospects 2019: Highlights; https://population.un.org/wpp/Publications/Files/WPP2019_10KeyFindings.pdf

³ <https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html>

⁴ Brookings Institution; 2017. The Unprecedented Expansion of the Global Middle Class – An Update. https://www.brookings.edu/wp-content/uploads/2017/02/global_20170228_global-middle-class.pdf

Figure 2. Changing Energy (food) Consumption in Developed and Developing Countries



Source: duplicated from: European Commission (2015); World Food Consumption Patterns, trends and drivers

Meeting changing food demand and consumption patterns presents challenges on many fronts. More directly it highlights the need for continued good returns to research and technology development and continuing investment in human and physical capital in order to boost productivity, reduce food losses and improve systems for food quality and safety and strengthen linkages between production and consumption areas. At the same time experiences from recent decades have highlighted the environmental consequences and sustainability issues associated with meeting the growing demand. Drawing in more land and water to support resource-intensive production practices have contributed to massive deforestation, water scarcities, soil degradation, loss of biodiversity and increasing levels of greenhouse gas emissions leading to increased volatility of food systems⁵. Climate change impacts further accentuate the pressures on the natural resources stock. This underscores the necessity to conserve natural resources by supporting less resource-intensive and more sustainable production and consumption patterns.

Global trade is also an important avenue for meeting the increasing food demands and changes in consumption patterns. Increased volatility in domestic food systems from impacts of climate change or pests and diseases have increased the reliance on trade as a means of smoothing out supply variations. Also, innovations and developments in food processing and transportation have made food trade a reliable option for meeting food needs, through both the supply of production inputs and final products. The FAO estimates that over the next 30 years global trade will provide a growing share of developing country requirements of food⁶.

Addressing the global trends and associated and consequential issues will require appropriate responses at the national level backed by frameworks of international cooperation that assure a global response. These national and international responses must have sustainability - economic, social and environmental – as an important outcome of meeting the increasing demands for food and non-food products. These responses will need to address issues such as development and adoption of technology, improved farm-market linkages, natural resource management and conservation, climate change mitigation and adaptation, enhancing knowledge of all participants, and policy and institutional effectiveness and efficiency.

⁵UNEP (2012); The Critical Role of Global Food Consumption Patterns in Achieving Sustainable Food Systems and Food for All.

⁶World Agriculture: Towards 2015/2030: An FAO Perspective. Agriculture Trade, Trade Policies and the Global Food System, Jelle Bruinsma (ed). 2003.

1.3. Sri Lankan Economy

Sri Lanka was elevated to Lower Middle-Income country status, under the World Bank's classification, in 2019. The country had total gross domestic product (GDP) of USD 82.6 billion and a gross national income (GNI) per capita of USD 4,060 as recorded in 2018⁷. It has a population of 21.67 million⁸ with median age of 32.7 years and concentrated in rural areas. The annual average inflation in 2018 was 4.3% and the unemployment rate was 4.2%. The trade balance in 2018 was 11.6% and the budget deficit was 5.3% of GDP, both indicators showing improvements from the previous year⁴.

The economy grew at an average of 5.5 percent during the period 2010-2018 and at a rate of 3.2% in 2018. In recent years growth of GDP has been aided by reforms in areas such as trade, promotion of foreign direct investment (FDI), financial services and capital markets, and privatization of state-owned enterprises. In 2018, foreign direct investment (FDI) inflows recorded its historically highest level (USD 2.3 billion), although a sharp drop in the ratio of investment to GDP was observed from 2012 (39.1%) to 2018 (28.6%). Economic growth has translated into a considerable degree of shared prosperity with the national poverty headcount declining from 15.3% in 2006/07 to 4.1% in 2016 and extreme poverty limited and concentrated to a few geographical pockets.

The structure of the economy is changing with a longer-term trend of declining contribution to gross domestic product (GDP) from agriculture and increasing contribution from services. With the main contributions to economic growth during the post-conflict period (post 2009) coming from construction, tourism, communications, trade and financial services, the share of agriculture in GDP has declined from 8.5 percent in 2010 to 7.0 percent in 2018. In 2018, the contributions of the components of the GDP were agriculture (7.0%), industry (26.1%), services (57.7%) and taxes less subsidies (9.2%)⁹. (Figure 3) provides data on the changing structure of the economy for the period 2010 to 2018. Even though drought has adversely affected the agricultural and industrial sectors in recent years, the decline in the agriculture sector reflects the normal decline in its share of the total economy as economic growth proceeds over time.

The agriculture sector still is significant in the economy. It employed 24.3% of the labour force in 2017¹⁰. It accounted for 17.8% of total exports during the period 2013 to 2016¹¹ and in 2018 the total value of agricultural exports was provisionally estimated at USD 2,579 million or 21.7% of total national exports¹². Agriculture also is the mainstay of the rural sector, where most of the population live and thus important in rural incomes and livelihoods. However, that the 24.3% of persons employed in agriculture earned just 7.0% of the value of gross domestic product indicates low returns/incomes to the land, labour and capital employed in the sector.

⁷ <http://repo.statistics.gov.lk/>

⁸ <http://www.statistics.gov.lk/PopHouSat/VitalStatistics/MidYearPopulation/Mid-year%20population%20by%20age%20group.pdf>

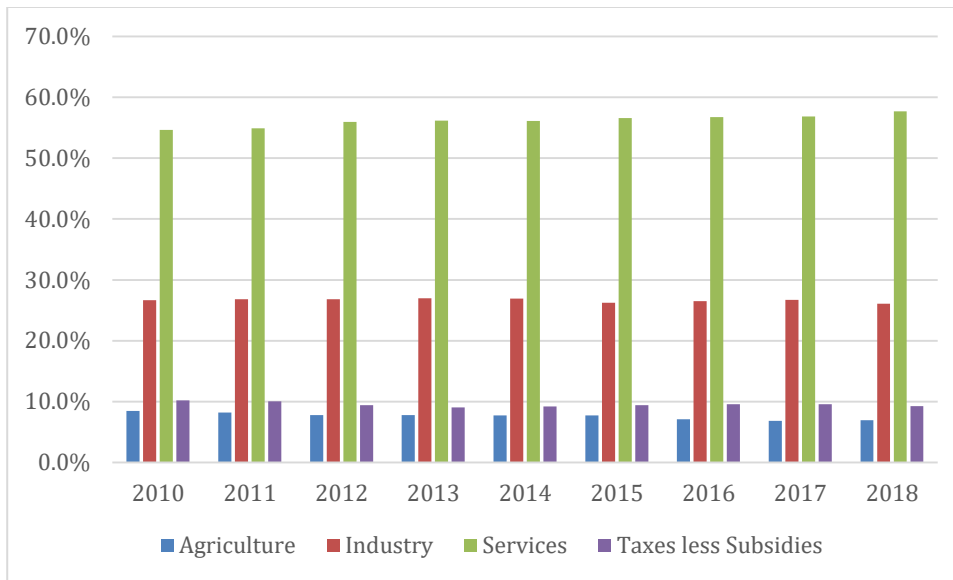
⁹ https://www.cbsl.gov.lk/sites/default/files/cbslweb_documents/publications/annual_report/2018/en/5_Chapter_01.pdf

¹⁰ <http://www.statistics.gov.lk/samplesurvey/2018Q3report.pdf>

¹¹ Calculated with data from <http://www.statistics.gov.lk/EconomicStat/EconomicStat2017.pdf>

¹² Central Bank of Sri Lanka <https://www.cbsl.gov.lk/en/statistics/statistical-tables/external-sector>

Figure 3. Sri Lanka: Changing Structure of the Economy

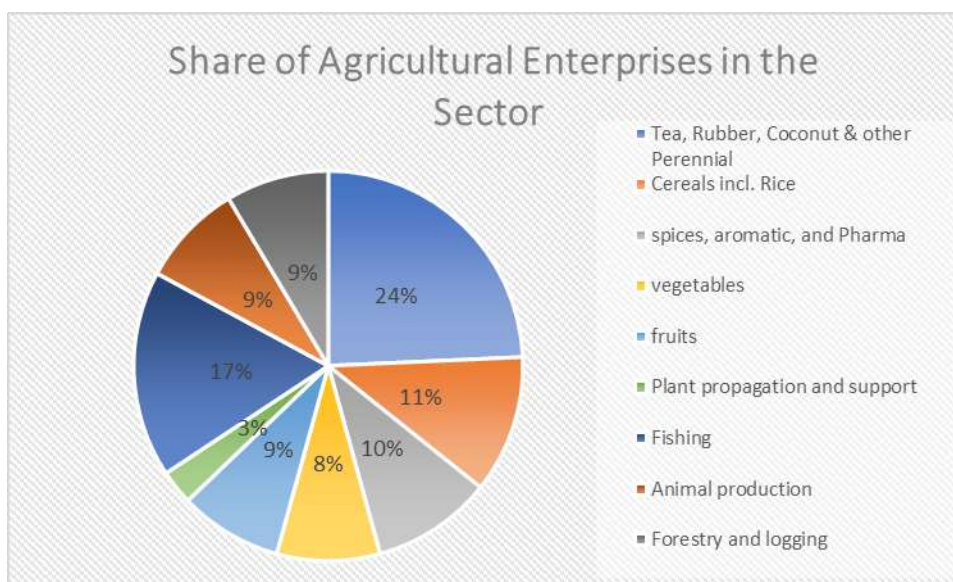


Source: Data from Department of Census and Statistics – Sri Lanka

1.4. Agriculture Sector in the Economy

The agriculture sector is constituted mainly of the crop subsector comprising the plantation and non-plantation crop segments, livestock and poultry, and the fisheries and aquaculture subsectors. Of the 7.0% contributed by the agricultural sector to national GDP in 2018, the crops subsector contributed 4.6%, fisheries 1.2%, animal production 0.6%, and forestry and logging 0.6%. Figure 4 below provides the percentage contribution of major agricultural enterprises to agricultural gross domestic product in 2018. The figure shows that the tea, rubber, coconut and other perennials contributed 24% of the value of agricultural GDP in 2018 with fisheries contributing 17% and cereals including rice 11%.

Figure 4. Shares of Various Enterprises Comprising the Agriculture Sector



Nationally, approximately 2,140,000 persons or 25.5% of the total employed population are engaged in agriculture, inclusive of forestry and fishery¹³. However, in the rural areas, agriculture is of even greater importance as over half of the work force¹⁴ in rural areas is employed in agriculture. Nationally, of those employed in agriculture, about 1.3 million (65%) are also engaged in activities other than crop production. Of the farm population, approximately 51.8% are part-time farmers who spend most of their time in non-agricultural activities¹⁵. Approximately 67% of farmers have declared their main purpose as producing for the market (i.e., commercially oriented farming), with 33% mainly engaged for own consumption (i.e., subsistence farming).

The total land area developed for crop production consists of about 865,000 hectares (ha) planted to permanent crops (primarily tea, rubber, coconut and spice crops) and another 850,000 developed for paddy cultivation¹⁶ and 200,000 ha used for other food crops. Another 200,000 of high ground area is cultivated as 'chena' under temporary licence. The area cultivated to different crops in 2014 is shown in Table 1 below.

Table 1. Cultivated Area of Major Crops

Crop	Cultivated area
Paddy rice	1,100,000 ha
Maha season	760,000 ha
Yalaseason	360,000 ha
Other field crops	215,000 ha
Other export agricultural crops	125,000 ha
Coconut	400,000 ha
Tea	203,000 ha
Rubber	137,000 ha
Source: Calculations based on data from the Department of Census and Statistics, Economic Census 2013-14.	

Monsoon and inter-monsoon rainfall patterns shape the agricultural seasons and irrigation patterns. Two thirds of the agricultural land in the dry zone where the bulk of Sri Lanka's irrigation infrastructure is located. The majority of farmers cultivate both lowland rice and other food crops, such as cereals, pulses, condiments, fruits and vegetables, on higher ground. During the secondary (yala) rainy season some farmers take the opportunity to cultivate other crops in the paddy fields. This also, includes crops grown as feedstuff used in the livestock industry, which is a fast-expanding market. While paddy production has reached levels sufficient to meet nearly all of domestic rice requirement, production of most of the other food crops including fodder and feed crops have not reached the levels required to meet domestic demand. The shortfall is imported. Table 2 below shows the trends in crop production from 2008-2017.

Table 2. Production of Major Crops for the Period 2008-2017

Crop	Production, '000 metric tons (MT)									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Paddy	3,875	3,652	4,301	3,894	3,846	4,621	3,381	4,819	4,420	2,383
Other Field Crops										

¹³Ibid.

¹⁴Department of Census and Statistics, Quarterly Labour Force Statistics

¹⁵ DCS (2018). Statistical Handbook.

¹⁶Little over 700,000 ha regularly cultivated, with close to 150,000 ha remaining abandoned.

Crop	Production, '000 metric tons (MT)									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Manioc	240	278	283	293	291	303	310	324	324	306
Maize	112	130	167	138	202	209	241	261	244	196
Potatoes	75	62	52	59	72	79	83	97	96	73
Big Onions	57	82	59	46	84	70	111	89	65	53
Red Onions	50	46	62	72	74	56	63	61	64	58
Groundnuts	10	13	14	17	22	27	25	29	24	22
Minor Export Crops										
Cinnamon	15	16	16	18	17	18	18	18	20	22
Pepper	13	16	17	11	19	28	19	28	18	30
Cloves	8	3	10	6	4	6	3	5	2	6
Plantation Crops										
Tea	319	291	331	328	328	340	338	329	293	308
Rubber	129	137	153	158	152	130	99	87	79	83
Coconut	380	367	251	386	351	379	716	552	765	466

Source: Central Bank of Sri Lanka. Economic and Social Statistics 2018.

The plantation crop segment is dominated by tea, rubber and coconut but also includes cashew, oil palm and sugarcane. Plantation crops are cultivated in large estates and small and medium land holdings and grown under rain-fed conditions. Tea, rubber and coconut with 740,000 ha under them account for about 33% of the total land area utilized for cultivation. Small and medium holdings account for 59% of the total production of the 3 tree crops. Exports of tea were provisionally valued at USD1,428 million in 2018 or 55.4% of total agricultural exports¹⁷. The exports of rubber and coconuts were provisionally valued at USD31.6 million and USD311 million or 1.2% and 12.1% respectively of the total value of agricultural exports. Plantation crops will need substantial investment and organisation to increase productivity, develop value-added products and exploit new markets in order to further enhance their potential for foreign exchange earnings.

Minor export crops including spices such as cinnamon, pepper, cloves, cardamom, and vanilla, and other perennial crops such as cocoa, coffee, cashew and palmyra are cultivated on small and medium land holdings and typically grown under rain-fed conditions. As indicated in Table 2 above, the production of minor export crops, such as cinnamon and pepper have been on an upward growth path in the period 2008 to 2017. In 2018, over 72,000 metric tons of spices were produced from approximately 125,000 ha under cultivation. Sri Lanka is the world's largest producer and exporter of cinnamon and ranks third for cloves and fifth for nutmegs. Sri Lanka accounts for approximately 77% of the world exports in cinnamon with exports largely targeted to North and South America. In 2018 the Central Bank of Sri Lanka provisionally estimated the value of spices exported at USD360.2 million or 14% of the total value of agricultural exports. Sri Lanka has a global comparative advantage in spices, and more particularly cinnamon, due to recognized high inherent quality of material. There is opportunity to capitalize on this in the global marketplace by leveraging country name recognition into building export markets for other agricultural products.

The non-plantation food crops comprise rice, maize, fruits, vegetables, and other minor food crops that are primarily grown in holdings smaller than 2 ha. Typically, non-plantation food crops are grown under irrigated and rainfed conditions. Smallholders dominate contributing 80% of the total agricultural production. In 2018, provisional statistics released by the Central Bank of Sri Lanka put the value of exports of vegetables and unmanufactured tobacco at USD28.2 million and USD35.6 million respectively or 1.1% and 1.4% of total agricultural exports. About 1.8 million farmers are engaged in cultivating 800,000 ha of paddy land, the largest extent devoted to a single crop in Sri Lanka. Over 700,000 ha are planted in a 'good' maha season (maximum 743,000 ha in 2015/16 maha) and another 450,000 ha in yala (maximum 476,000 ha in 2015 yala). Over 82% of cultivated holdings are less than 1 ha in size, with an average holding size of 0.35 ha. Holding sizes of paddy

¹⁷Central Bank of Sri Lanka; <https://www.cbsl.gov.lk/en/statistics/statistical-tables/external-sector>

range from under 0.3 ha in the wet zone to 0.9 ha in the irrigated dry zone¹⁸. Paddy cultivation benefits from subsidized fertilizer and seed paddy, free irrigation water and advisory services, and a guaranteed price scheme. In the irrigated dry zone, average rice yields are 5.0 tons/ha while yields average 3.2-3.3 tons/ha in the wet zone. Sri Lanka produces all its rice requirement in a good season, while shortfalls are met with imports. The cost of production of paddy for the most productive regions in Sri Lanka averages around Rs. 30/kg¹⁹, which is considered not competitive in the export market for rice. There is need for substantial increases in land and labour productivity to improve competitiveness against potential imports.

The floriculture industry in Sri Lanka has developed rapidly and now earns substantial foreign exchange and generates direct and indirect employment. It is mostly carried out in the wet zone and in the highlands under greenhouses or open fields. Europe is the main market for floriculture products and 60% of Sri Lankan exports are destined to Europe, while Japan, Middle East, USA and Korea make up the other key markets. Exports comprise foliage (55%), live plants (44%) and other (1%). In 2018, exports were valued at US \$8.5 million. However, Sri Lanka's share in world trade is only about 0.2% indicating a tremendous potential to expand the floriculture sector.

Animal production systems are dominated by small producers who engage in a range of animal production systems but primarily poultry and dairy production and some small ruminants and pigs. The chicken and dairy segments have experienced considerable expansion during the last ten years (see Table 3). The poultry population recorded nearly a 100% increase during the 2002-2017 period reaching over 20 million animals and producing 200,000 tons of meat and 2,856 million eggs in 2017. Milk production from cattle and buffalo has almost doubled over a 10-year period to reach 389 million litres in 2017. However, the industry meets only about 40% of domestic consumption of milk. High cost of production, in part due to high cost of feed, is a factor in constraining the competitiveness of animal production systems.

Table 3. Livestock Production, 2008-2017

Product	Production (Various Units)									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Cattle										
Meat (MT)	3,362	3,513	4,254	3,321	3,635	3,356	3,168	3,488	3,516	3,270
Milk (ltrs million)	172	184	192	203	238	268	273	305	318	328
Buffaloes										
Milk (ltrs million)	36	49	56	55	62	64	61	69	66	61
Sheep & Goats										
Meat (MT)	18	63	68	63	73	65	56	51	52	43
Poultry										
Meat (MT 1000)	103	99	104	117	137	145	150	164	183	201
Eggs (million)	1,900	1,623	1,385	1,711	2,279	2,075	2,232	2,294	2,304	2,856
Source: Central Bank of Sri Lanka. <i>Economic and Social Statistics 2018</i> and Department of Animal Production & Health (2018). <i>Poultry Industry – Key Statistics</i> .										

The fishery segment comprises coastal and deep-sea marine fishery and aquaculture practiced in coastal waters and large inland reservoirs and ponds, producing finfish, prawns, ornamental fish etc. Fisheries are dominated by small producers with half of the over 30,000 fishing fleet comprising small traditional crafts. The large network of inland reservoirs developed for irrigation, in addition to coastal lagoons, bays, and ponds, are exploited for aquaculture and inland fisheries. Cultured fishery in the form of prawn farming, cage culture of fish, and crab fattening are considered to have great growth potential over current levels. Aquaculture and inland fisheries contribute only about 15% of the current annual fish catch/production of about 530,000 MT. About

¹⁸Computed from Census of Agriculture, 2002.

¹⁹Cost of Cultivation of Paddy, 2018. Socio-Economics and Planning Division, Department of Agriculture.

5% of catch/production, comprising tuna, shrimp, lobster, crab, etc., is exported. The high cost of feed is a constraint to increasing output and exports. Table 4 provides data on fish production for the period 2008 to 2017.

Table 4. Fish Production, 2008-2017 (MT '000)

Commodity	Production									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	319	340	385	445	486	513	535	520	531	531
Coastal	165	180	202	222	258	268	279	269	274	260
Deep Sea	109	113	130	163	169	178	180	184	183	190
Inland	44	47	42	60	69	67	76	67	74	82

Source: Central Bank of Sri Lanka. Economic and Social Statistics 2018.

1.5. Policy Environment for Agriculture in Sri Lanka

Agricultural activities in Sri Lanka operate within a framework of national policies and sectoral policies. National policies of the Government of Sri Lanka are focussed on addressing the country's many economic, social and environmental challenges and guiding it onto a sustainable development path. Government policies are guided by a vision of transforming Sri Lanka into a knowledge-based, export-oriented competitive economy at the centre of the Indian Ocean. Government policies also aim to meet the ambitious sustainable development goals (SDGs)²⁰ by 2030. Towards achieving the SDGs, the GOSL is working on the provision of basic needs of the people, progressive alleviation of poverty, elimination of all forms of discrimination and inequalities, establishing a society based on social justice and human security, and advancing sustainable management and use of natural resources and ecosystems.

Sectoral and sub-sectoral policies for agriculture recognise the need to facilitate improvements in crop, fishery and livestock production, strengthen markets and value chains, find solutions to connectivity and logistics issues and strengthen private sector participation in service delivery. They also recognise concerns on sustainability and the challenges associated with changing weather patterns, labour shortages, fragmentation of land holdings and continuing land degradation in trying to improve food production and establish commercially viable agriculture units. These are closely interwoven with the welfare of persons engaged in the sector from the point of human development, poverty eradication and quality of life.

There are several sectoral and sub-sectoral policy and strategy documents covering agricultural activities. These include the National Agriculture Policy, which was introduced in 2007 by the Ministry of Agriculture with key aims of assuring food security, ensuring environmental sustainability and developing economic opportunity. Other key policy documents include the National Land Use Policy (2007), National Plantation Industry Policy Framework (2006), National Livestock Policy (2006), Sri Lanka Rubber Industry Master Plan 2017-2026 (2017), National Fisheries and Aquaculture Policy (2018), National Policy and Strategy on Cleaner Production for the Agriculture Sector (2012), and National Agricultural Research Policy and Strategy 2018-2027 (2018). While several of the existing policy documents need updating, they are still relevant in guiding government interventions in the sector and relevant sub-sectors.

A number of national policy and strategy documents encompass activities in the agriculture sector. The most relevant of these policy documents include, the New Trade Policy (2017), the National Policy on Sustainable Consumption and Development (2018), and the National Export Strategy (2018). The Public Investment Programme (PIP), a major planning and implementation instrument used to operationalise government policy, also contains substantial sections pertaining to the agricultural sector. Agricultural strategy, as expressed in the latest version of the PIP (PIP 2017-

2020²¹), identifies two core strategic elements, namely (1) food security of people by way of substituting possible imports and (2) promoting exports of agro-based products through increased competitiveness in the international market. In 2019 the planned public investment for the seven major areas of agriculture (namely, food crops, livestock, plantation and minor export crops, fisheries, land, irrigation and environment) was 15.3% of total public investment. For 2020 it was set at 14.1% of total public investment.

Government interventions towards improving agriculture and food production have focussed on investments in a number of areas including irrigation, research and development, and training, education, and dissemination of knowledge. Irrigation development, initially undertaken with the reconstruction and rehabilitation of ancient tank networks, have transformed towards major river and catchment management schemes with land development for rice cultivation as the primary motive. The fertilizer subsidy scheme, introduced in 1962, was intended to increase productivity and support adoption of modern high-yielding rice varieties and other food crops. In the tree crop sub-sector, the development of new high-yielding cultivars coupled with replanting and new-planting subsidy schemes have supported the participation of smallholders in the production of tea, rubber and coconut. In food crops, interventions have focussed on the provision of research and development, pest and disease control, extension and knowledge transfer, and high-quality seeds.

In livestock and poultry, genetic improvement of the breeding stock, disease control and the production of feed and fodder are targeted. In aquaculture, programmes have provided fingerlings and shrimp larvae, fish feed etc to support expansion of fisheries and increased production of shrimp and other high-value fish products. In the wider fisheries sub-sector, investments in fish landing facilities and harbours, supply of vessels, storage, processing and marketing infrastructure have sought to expand capacity in fish production and improve quality. Agricultural producers also have access to agricultural credit at reduced interest rates and crop and livestock insurance schemes. There also are programmes aimed at improving the regulatory environment to support more efficient and stable functioning of agricultural markets including expansion and operation of a system of markets, establishment of product certification and quality standards, provision of services to support the adoption of good agricultural practices and programmes aimed at improving food safety and promoting exports of fresh and processed food products. Governments have also intervened rather directly in markets through adjusting tariffs and imports of products sensitive to food security and farm incomes.

In general, the thrust of policy in recent years have been a departure from the import substitution policies and strategy of the 1970s. In the 1970s and subsequent years import substitution policies supported domestic food production through producer support programmes such as state procurement, guaranteed price schemes, quantitative restrictions on imports, tariff adjustments, state marketing boards, and concessionary comprehensive rural credit and crop insurance schemes. Government continues to provide subsidised seed and fertilizer, free irrigation water, publicly funded research and extension services, marketing infrastructure, and price guarantees for paddy, selected food crops, and milk. It also provides a range of financial and economic incentives such as cultivation credit at reduced interest rates, tax exemptions and concessionary financing for developing, processing, value addition and exporting of farm produce.

Since 1988 and particularly after the coming into being of the World Trade Organisation (WTO) in 1995, Sri Lanka has increasingly pursued a path of economic liberalisation. This shift has seen many of the quantitative restrictions applied to food imports replaced with tariffs, higher levels of participation of the private sector particularly in the off-farm stages of agricultural value chains, and a shift in public policies towards creating an enabling and conducive environment for private sector investment. There will need to be further movement on the path of economic liberalisation if the agricultural sector is to meaningfully contribute to and be a part of the national vision of transforming Sri Lanka into a knowledge-based, export-oriented economy.

2. RATIONALE FOR THE OVERARCHING AGRICULTURE POLICY AND CORE STRATEGIC ELEMENTS ON THE WAY FORWARD

2.1. Rationale for Overarching Agricultural Policy

This overarching agriculture policy document is part of a strategic response by the Government of Sri Lanka to the evolving priorities and challenges in the global, national and sectoral environments while working towards the national vision of transforming Sri Lanka into a “knowledge-based, export-oriented competitive economy at the centre of the Indian Ocean”.

At the global level, the trade environment will become more competitive as Sri Lanka consolidates as an upper-middle income country. Thus, there will be increasing pressure for Sri Lanka to remove quantitative restrictions and lower tariff levels on imports that compete with its home-grown products. Additionally, there is increasing attention in global markets to product characteristics of food quality, food safety, ethical standards and sustainability.

At the national level, the agricultural sector faces many challenges. At a macro-economic level, because of its relatively small and declining contribution to GDP, the agricultural sector must strive to meet standards set in the wider national economy in areas such as labour productivity, wage rates and incomes, interest rates and attractiveness of investment.

At the sectoral level, Sri Lanka’s agriculture sector has experienced trends which are in line with the experience of other countries – i.e., declining share of the labour force in agriculture and declining contribution of the sector to national income. These trends are part of the economic structural transformation that all countries experience as they develop and shift towards manufacturing and services. The challenge for Sri Lanka, as for all other countries, is to make the needed investments so that agricultural production, foreign exchange earnings and farm incomes do not collapse as a consequence of the loss of labour in the process of economic structural transformation. Meeting the challenges will mean adopting technology to increase labour productivity, improving farm-market linkages, investing in value chains and also generating off-farm employment to absorb excess labour in the rural areas.

A strategic path forward requires for the sector to build on strengths, address weaknesses, capitalise on opportunities, and counter threats. Below are the findings of an analysis of strengths, weaknesses, opportunities and threats (SWOT) carried out for the Sri Lankan agriculture sector. The details of the analysis of the existing scenario are given in the annex 1.

Following table need to be annexed

SWOT Analysis of the Existing Scenario: (include in Annex)

Strengths	Weaknesses
<ul style="list-style-type: none"> • Several agricultural products with global reputation and name recognition for quality. • Large segment of the population with involvement in agriculture. • Farming still regarded as a noble profession • A historical and long-standing focus on irrigated agriculture, resulting in strong irrigation-based institutions under key Ministries. • Acceptance of the need to modernize the agriculture sector through greater involvement of the private sector. 	<ul style="list-style-type: none"> • Inappropriate trade policies (e.g. <i>ad hoc</i> imposition of tariff and taxes), inhibiting improved productivity, optimal allocation of resources and performance of private sector. • Limited compliance with standards (e.g. spice sector) and poor enforcement of related rules and regulations. • Low land productivity owing to land degradation, misallocation of agricultural lands, land fragmentation, poor land management, inadequate regulations and poor implementation of existing regulations. • Low levels of farm income relative to other

<ul style="list-style-type: none"> • Large cadre of professional scientists, professionals and technicians supporting the sector. • Ministries responsible for agriculture subsectors have sub-sectoral policies, strategies and action plans and have experience in implementation. • Line agencies under each Ministry having a combination of mandates and resources (e.g. research institutes, research coordination body, extension units, farms/plantations) to support and manage sustainable agricultural development in Sri Lanka. 	<p>sectors of the economy.</p> <ul style="list-style-type: none"> • Weak farm-market linkages for many commodities. • Absence of sustained farmer networks. • Utilisation of natural resources in various agricultural sub-sectors threatening to environment and sustainability of the agricultural systems. • Insecure land tenure and lack of transparency in land administration inhibiting investments. • Stringent state control over production and supply of seeds, planting materials, animal breeds. • weak regulatory measures for water pricing and water quality management; un-sustainable extraction of ground water resources. • Relatively high level of food insecurity owing to low productivity and diversification, and inadequate knowledge. • lack of attention on nutritional aspects of products, coupled with non-adoption of GAPs, and heavy postharvest losses in the absence of food systems approach. • Non-harmonized sectoral policies developed by respective Ministries responsible for agriculture. • Research outcomes inadequate to meet sector needs due to inadequate spending on research and development, insufficient human resources, highly fragmented National Agricultural Research System (NARS), weak and inadequate PPPs in research and development, poor translation/transformation of agricultural research innovations to practitioners. • Complicated and large number of institutions with poor inter-institutional coordination across institutions owing to devolution of powers without real decentralization leading to top-down approach in implementation and rent seeking behaviour due to over-regulation. • Lack of credit facilities for modernization/commercialization.
<p>Opportunities</p>	<p>Threats</p>
<ul style="list-style-type: none"> • Increased efficiency and effectiveness due to improved institutional coordination. • Efforts to provide farming communities with a demand-driven, service sector support. • Increased use of ICT for information dissemination, coordination of efforts and promoting agricultural development. 	<ul style="list-style-type: none"> • Inefficient use of budgets and high competition for a share of Government budgets by its agencies. • Protectionist stance of the GoSL that inhibits leveraging of comparative advantages, attention to quality assurance and addressing cumbersome bureaucracy

<ul style="list-style-type: none"> • Focus on developing appropriate technologies to retain youth and increase participation of women in the sector and to provide equal opportunities to women. • Use of abandoned paddy land for other higher valued crops. 	<ul style="list-style-type: none"> • leading to anti-export bias, slower export growth and poor export diversification. • Devolved activities to Provincial Councils overlapping or contradicting with a range of functions and powers covered by central ministries and also by their departments. • Changing global market standards and needs for certification and traceability. • Trade barriers at international markets and cumbersome procedures. • High vulnerability to climate change.
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An overarching agriculture policy is part of the process of addressing weaknesses in the sector. Resolution of the critical problems identified requires a broad-based approach that is harmonized with the wider economic development framework of the country. The large number of institutions with mandates in the sector, at minimum, point to the need for high-level coordination and harmonisation of efforts. Many issues to be confronted to further develop and transform the sector cut across mandates of individual institutions and therefore cannot be managed fully within agency-specific policies and plans. Issues such as climate change responses, sustainability of development interventions, responses to increasing globalization, threats to biodiversity and prevalence of trans-boundary pest and diseases, and food safety concerns and standards etc. demand more coordinated action. Given the situation existing in and confronting Sri Lanka, an Overarching Agriculture Policy can provide the framework for responding to emerging developments and coordinate actions to create an efficient, diversified, sustainable, market-oriented and inclusive agriculture sector.

2.2. Core Strategic Elements on the Way Forward

To be effective an overarching agricultural policy must provide clarity on the way forward by specifying the focus of strategic policy action in the sector so that these can form the basis for coordinated action by the several public institutions operating in the sector. This policy document identifies 5 core areas for strategic policy action. These are identified below.

2.2.1 Increase productivity of farming

One of the underlying causes for poor performance and weak global competitiveness in the agricultural sector is the low productivity of farming operations. Insecure land tenure, inappropriate land use, land fragmentation, small farm sizes, and climate change impact hinder productivity improvements in the agriculture sector. Climate change alone is expected to reduce paddy production in Sri Lanka by up to 30% over the next 20 to 30 years²², which is a threat to overall food security. Ineffective, inefficient, uncoordinated and unfocused research and development programmes mean that research outputs are often inaccessible, irrelevant, or non-functional to farmers' needs.

Increasing the productivity of both land and labour used in agriculture is a core strategic element on the path forward. Unclear rights and land ownership issues experienced since the colonial era, which are yet to be resolved fully, have affected the functioning of the land markets in agricultural areas. This has seriously limited the efforts to improve productivity and market responsiveness by preventing farmers acquiring land and other resources to increase production. This highlights the need for amendments to the related regulations. Land fragmentation is also a major problem as small farm sizes seriously constrain efforts for mechanisation and also provide low farm incomes insufficient to undertake significant productivity enhancing investments. Land productivity can be increased through, inter alia, use of higher yielding varieties and species, improved pest and

²² <https://www.ifad.org/en/web/knowledge/publication/asset/39430715>

disease control, increased soil fertility and improved husbandry, and more effective ways of managing the impacts of climate and weather.

Agricultural productivity measures show, very low labour productivity indicators for Sri Lanka compared to other south Asian countries. Agricultural labour productivity as measured by gross value added is the lowest of all 3 economic sectors²³, i.e. Rs. 182.19 per hour worked in agriculture compared to Rs. 528.27 in industry and Rs. 613.91 in services. Data from farm surveys clearly demonstrate that gross margins from farming continue to decline in real terms²⁴. Labour productivity is directly linked to farm incomes and therefore increasing labour productivity will have positive impacts to standards of living. Labour productivity can be increased with mechanisation and by switching to higher-valued commodities. The small-scale farmers producing most of the country's agricultural output are in the main in production systems producing commodities with low economic value. Changing this will require strength in research programmes and effective marketing to domestic and international markets. A programme of mechanisation would be most effective if there were consolidation of small farms (through, e.g., purchase, lease or rental agreements) or implementation of mechanisation services for groups of farms.

Addressing land and labour productivity will require more efficient and effective research and development institutions and systems and research-extension linkages, and addressing the issues affecting land fragmentation and soil degradation. Increased productivity, particularly labour productivity, will have beneficial effects on farm income. Increasing land and labour productivity is a priority in the way forward.

2.2.2 Energize domestic farm-market linkages and the rural economy

The development plans of the GOSL^{25,26} and investment programmes of the Department of National Planning²⁷, speak of reviving the rural economy of Sri Lanka by transforming farming to be more competitive and market-oriented. One focus of efforts has been on improving the functioning of agricultural markets. However, there are problems in that, for commodities sold on the domestic market, farmers often lack the information and systems that would influence when and what is produced and how the produce is packaged, moved and presented to consumers. These farm-market linkage problems can be addressed through improved information flows, and/or forward (farmers becoming more involved in meeting the needs of consumers) linking of farms to markets and backward linking of consumer supply businesses (supermarkets and processors; out-grower schemes or other supply/value chain networks) to markets.

The development of agro-industries can have a dramatic impact on reducing underemployment and rural poverty by creating new opportunities. Despite considerable agro-industrial potential, only few of the annual food crops including rice, animal and fishery products are used in industries. Many horticultural and floricultural crops, medicinal and ayurvedic herbs, ornamental and inland fishery, livestock and poultry, with such potentials are not cultivated/reared at adequate extents with better and improved varieties/breeds, technological know-how and relevant market information to support large-scale industrialization. Also, the promotion of small and medium enterprises (SMEs) can help in product diversification and movement of competitive and high-quality products to the domestic markets.

Energising domestic farm-market linkages and the rural economy is a priority in the way forward. A keyway to achieve this is for the development and growth of market-oriented value chains and for policy, planning and development efforts to be organised along the lines of cluster or value chain development. Assisting producers to obtain a fair share of market prices is a desirable goal that can be achieved through strengthening of information networks for informed-decision making by the agricultural practitioners, providing extension and training, promoting private-public partnership,

²³Central Bank of Sri Lanka, Annual Report, 2018.

²⁴ Socio Economics and Planning Division, Cost of Cultivation of Agricultural Crops, various years

²⁵ Vision 2025

²⁶ Sustainable Sri Lanka - 2030 Vision and Strategic Path

²⁷<http://www.mnpea.gov.lk/web/index.php/en/news-events/2-uncategorised/181-public-investment-programme.html>

facilitating competitive and commercially-oriented agriculture through appropriate changes made to regulatory enactments, and providing timely agricultural inputs at affordable prices, and appropriate risk management options.

2.2.3. Increase export earnings

Sri Lanka needs foreign markets so that it can obtain higher prices for items in which it has a comparative advantage which would facilitate expanded production, better utilisation of land and other resources, improved incomes for farmers, and higher rates of economic growth. Tea is a good example as exporting allows Sri Lanka to connect with foreign markets much larger than its own and have a much larger land area under tea than if it were produced only for domestic consumption. Blessed with a high diversity of climatic zones appropriate to grow a range of crops year-round, Sri Lanka has the potential to develop exports in fresh and processed fruits, vegetables, and floricultural products. With the recognition of proper market niche, Sri Lanka may have potential to develop exports in rice and other food crops that are deemed non-competitive in high-volume generic markets.

The agribusiness private sector is an important partner for improving farm incomes and creating better rural jobs in marketing, processing and food value chains. Agricultural modernization and agribusiness go hand-in-hand in modern and advanced food systems. Global agricultural markets are becoming increasingly complex due to concentration at all points in the value chain and the increasing scope and intricacy of food standards, particularly those relating to food safety. Thus, achieving potential benefits of agricultural export growth requires careful analysis of trends in global markets and the policies that will unlock the potential for growth.

The Global Competitiveness Index (GCI) that ranks countries by overall competitiveness ranked Sri Lanka at 85th place out of 140 countries in the 2018 GCI. Lack of competitiveness in agricultural products on global markets seems to be due to technology gaps, low investments, non-availability of adequate quantities of high-quality inputs, transportation and market-related problems, absence of consistent trade and tariff policies²⁸, and impediments to foreign and private sector investment.

There are some avenues for Sri Lanka to build on for increasing exports. There are strong systems for exporting the current commodities – plantation crops and spices – and these institutions and systems represent a large reservoir of knowledge and experiences in accessing and developing export markets. Can the knowledge entrenched in these institutions be leveraged for the benefit of other commodities? Acquiring geographic indicators (GI) and patent-related agricultural products to secure the brand names and global marketplace for products such as cinnamon and pepper in the global export markets could assist with country recognition for other products, which could be a useful selling point. The numerous rice mills can become more involved in converting rice to value-added products.

Sri Lanka is standing far behind other rice consuming countries in converting rice to value-added products. Rice mills which are the agricultural product processing units of industrial scale do not manufacture any new products but process the primary agricultural products for easy preservation/storage or transportation to markets. Properly networking such processing units to allow for development and supply of high-quality processed products to meet the domestic and export demand can expand markets.

Adherence to the product quality standards set by importing countries plays a crucial role in market development. There are few accredited laboratories in Sri Lanka such as the Industrial Technology Institute (ITI) that provides fee-levied services to the industry such as testing for pesticide, natural toxin and antibiotic residues, industrial pollutants, chemical adulterants, allergens, and vitamin and nutritional analysis. However, many independent certification groups accredited to world's leading organic certification bodies provide the services for organic exporters assuring the required quality. Also, Fairtrade products such as green tea, black tea, herbal teas, spices, coconut products

²⁸ CBSL (various reports)

and traditional rice are also exported to many developed countries in the world. All these provide enormous opportunities to promote export agricultural products reaching global markets and there is an urgent need for further expansion of the niche markets to reach larger masses. These certification bodies should be strengthened further in order to promote agricultural exports from Sri Lanka while supporting the livelihood of practitioners.

Sri Lanka requires to invest more on research and development, shift to qualitative aspects of agricultural produce from the quantity, infuse technology and innovations, and facilitate agricultural export through appropriate amendments to exploit the guidelines set by the trade agreement. Also, there must be more support provided to entrepreneurs in identifying export products and markets and in accessing these markets.

Increasing exports from a more competitive and commercially oriented agriculture sector is a priority in the way forward. The emphasis should be on high value and high-quality agricultural products.

2.2.4. Mainstream gender and youth

Women and youth constitute the largest segments of the population but are under-represented in both the economic and political spheres in the country²⁹. Though the Sri Lankan population consists of more females than males, the economic participation of women remains at a low 35%. Further, the high rate of youth (15-24 years old) unemployment affects the future of nation's 4.4 million young people, particularly young women. The youth unemployment rate stood at 21.6% in 2016 while the gender gap was also evident with 29.2% of young women were unemployed compared to 17.1% of young men. At higher levels of education, the unemployment rate was 4.7% for men and 11.9% for women³⁰.

Poor income prospects have made it difficult for the agriculture sector to attract youth with better skills. Small scale of operation remains a major constraint in adopting technology-driven agriculture, particularly in crops produced and processed in larger volumes as application of such technologies have distinct scale-economies. To remain competitive and to draw and retain high-skilled human resources, the agriculture sector must create opportunities for large operational holdings, animal rearing or aquaculture complimented by modern technology including mechanization.

Mainstreaming gender and youth in policies, implementation strategies and action plans has been emphasized by the 'Country Gender Assessment of Agriculture and Rural Sector'³¹ carried out by the FAO. Insufficient access to resources such as land, water and capital and not having access to markets are the key factors hindering youth entering to commercial agriculture. Remoteness in job location discourages youth, particularly graduates, to find a job in the formal agricultural sector. In order to attract more youth and female workers to the agriculture labor force, adjustments in the supply side and demand side are required. On the supply side, skill development through education and training is essential. On the demand side adjustments are needed through changes in the regulatory and institutional environment to eradicate the obstacles that hinder women and youth acquiring land and other assets and participation in the labor force.

Increasing the participation of women and youth in a more competitive and commercially oriented agriculture sector is a priority in the way forward. This can be facilitated through mainstreaming youth issues in agriculture with appropriate interventions in skill development, increased ownership and access to assets particularly land, strengthening organizations, enhancing partnerships, and increasing availability of appropriate technology.

²⁹ ADB (2018): <https://lk.one.un.org/wp-content/uploads/2018/07/Sri-Lanka-Report-MAR18.pdf>

³⁰ NPD (2016): Public Investment Programme 2017-2020

³¹ FAO (2018): <http://www.fao.org/3/CA1516EN/ca1516en.pdf>

2.2.5. Implement effective mechanisms to coordinate, guide and monitor sector development

Several national level ministries and institutions plus the ministries of the provincial authorities operate in the agricultural sector. There is little in the way of a formal overarching mechanism for coordination of the policies, plans and interventions of these multiple entities so as to strategically guide investments and development efforts. Also, there is little in the way of active monitoring of outcomes of interventions. Stakeholder participation in the processes of policy formulation and sector and sub-sectoral planning, for the most part, is under formal institutionalised mechanisms.

Implementing a high-level mechanism of relevant Ministries and Provinces for coordination and monitoring of interventions into the agricultural sector is a priority. Increasing the level of stakeholder participation in evidence-based policy dialogue (such as through the formation of cluster groups) and sub-sector reviews, and value chain planning will be undertaken on a regular basis.

The implementation of the OAP will be coordinated, guided and monitored by an overarching coordination committee. The OAP will be subject to review for achievements and relevance as required by the changing circumstances.

3. SCOPE OF THE OAP

The Overarching Agriculture Policy (OAP) embraces all key agriculture sector institutions from crop, livestock and poultry, fishery (excluding marine fishery) sub-sectors, agro-processing, and allied services such as irrigation, agrarian development and environment. In the development of the OAP a thorough examination was made of the connectivity across all subsectors and related fields with a focus on the modernization of the agriculture sector towards enhancing and realizing the potential of agriculture to support sustainable national development and prosperity.

The subsectors and operational areas analysed in the OAP are summarized in the table below:

Subsectors	Operational areas	Main Institutions
Food Crops	Rice, other field crops, fruits, vegetables, Cashew, Oil Palm, Palmyra	MOA, DOA, CC, PDB, SLCARP, HKARTI
Plantation Crops	Tea, Rubber, Coconut	TRI, TSHDA, RRI, RDD, CRI, CDB
Export Agricultural Crops	Spice Crops	MOPI, DEA
Livestock and Poultry	Dairy, Poultry, Swine, Goat, etc.	MOA, DAPH,
Inland fisheries	Aquaculture including near-shore fish farming, ornamental fish etc.	MOA, DOF, NAQDA, NARA,
Agrarian Development	Farmer services including agricultural development	DAD
Irrigation& Water	Major and minor irrigation under the DOI and DAD	MOA, DOI, DAD, WRB
Land	Ministry and Departments in charge of the subject	DLCG, LUPPD
Environment	Environment including climate change	MMD&E, CEA, DWC, DFC

Issues and concerns pertaining to different agricultural enterprises were collated through stakeholder consultations, thoroughly reviewed and analysed to rank them based on their impact on realizing objectives of designing the OAP. Key policy-related positions and principles emanating out of the review and stakeholder consultations gave rise to 10 different thematic areas.

3.1. OAP – VISION, MISSION AND OBJECTIVES

With a view to overcome the constraints that hinder the progress of the agriculture sector, the Overarching Agriculture Policy with the following vision and objectives is proposed:

Vision: *Globally competitive agriculture sector for national prosperity.*

Objectives: *To enhance competitiveness of agriculture and agri-businesses through innovative and sustainable technologies, and constructive partnerships, in a conducive institutional and regulatory environment, with a view to enhance contribution to economic growth and raising living standards of people engaged in agriculture, while ensuring sustainable use of natural resources and contributing to national food security.*

The Overarching Agriculture Policy would achieve the vision and objectives through statement of policy principles and policy action areas organized under 10 thematic areas. The following policy principles are presented under the 10 thematic areas were examined in relation to interconnectivity among the existing sub-sectoral policies and the alignment with all major development policies of the country.

- Prosperous farmer community
- Energizing market linkages
- Revitalizing rural economy
- Reaching to Global Value Chain
- Ensuring food and nutrition security and food safety

Historical developments, present scenarios and future prospects, and lessons from experiences from global approaches and best practices related to agricultural development were also considered. The 10 thematic areas and the key elements discussed under each are shown below.

1. **Reserving Natural Resources:** Agriculture in natural ecosystems, biodiversity conservations and human-animal conflict.
2. **Land Use Planning, Land Administration and Land Degradation:** Sustainable land management and administration, legislation reforms for productivity enhancement and land tenure.
3. **Agriculture Water Management:** Water productivity and allocation of water resources, major and minor irrigation development
4. **Climate Change:** Adaptation to climate change, minimize loss and damage via increased climate resilience and climate-smart agriculture.
5. **Food Security:** Contribution to enhancement of availability, affordability, accessibility of nutritious food, and stability of food supplies.
6. **Border (trade) Measures:** Regulation of food and agricultural imports and exports, commitments with bilateral, multinational and regional trade agreements.
7. **Effective Governance:** Improved coordination and implementation of policies between central provincial set up.
8. **Development Subsidies for Value Chain Actors:** Subsidies for value chain actors to enhance agriculture production, including provision of seeds, fertilizers and machinery at affordable prices.
9. **Production Support and Service Delivery:** Indirect support provided to facilitate agriculture production.
10. **Strengthening Education-research-extension:** State and private sector contribution to agricultural education, research, and extension, and promotion of private-public partnerships.

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