



Dhammika Perera

Coconut Development Action Plan

Sri Lanka Coconut Industry at a Glance

- Coconut products contribute to 8.8% of total agriculture production in 2020.
- Every 6 years, the population increases by 1 million people. To serve the increasing local demand and consumption, an additional 200 million coconuts are required.

Goal

- Current 3 billion coconut production to increase by 40%, to achieve a nut production target of 4.2 billion per annum.

Gross Domestic Product by Industrial Origin at Current Market Prices (a)

Economic Activity	Rs. Million					
	"2019 Annual (b) (c) "	"2020 Quarter 1 (b) (c) "	"2020 Quarter 2 (b) (c) "	"2020 Quarter 3 (b) (c) "	"2020 Quarter 4 (c) "	"2020 Annual (c) "
Agriculture, Forestry and Fishing	1,132,065	279,015	277,999	322,031	372,877	1,251,921
1. Growing of cereals (except rice)	19,616	7,848	7,218	8,330	14,104	37,501
2. Growing of rice	136,071	20,766	35,311	31,747	80,688	168,512
3. Growing of vegetables	100,535	36,113	29,820	33,993	33,391	133,317
4. Growing of sugar cane, tobacco and other non-perennial crops	3,473	1,067	1,302	1,223	975	4,567
5. Growing of fruits	109,541	28,220	28,153	29,707	30,056	116,135
6. Growing of oleaginous fruits (coconut, king coconut, oil palm)	81,481	22,523	25,104	28,763	33,222	109,612
7. Growing of tea (green leaves)	99,341	19,695	31,143	26,999	30,707	108,544
8. Growing of other beverage crops (coffee, cocoa etc.)	2,121	843	900	1,131	990	3,864
9. Growing of spices, aromatic, drug and pharmaceutical crops	84,718	25,035	22,257	23,114	24,486	94,892
10. Growing of rubber	15,772	4,467	3,567	3,871	5,517	17,422
11. Growing of other perennial crops	27,556	7,276	6,832	9,578	8,859	32,545
12. Animal production	134,295	32,679	25,991	40,304	40,987	139,961
13. Plant propagation and support activities to agriculture	13,356	3,185	3,308	3,419	3,266	13,178
14. Forestry and logging	107,202	22,986	19,579	32,054	31,142	105,760
15. Marine fishing and marine aquaculture	169,976	40,661	29,554	38,471	26,724	135,409
16. Fresh water fishing and fresh water aquaculture	27,013	5,652	7,960	9,327	7,764	30,702
Industries	4,114,102	1,080,484	735,174	1,121,034	993,351	3,930,042
17. Mining and quarrying	374,931	84,651	64,174	83,844	96,665	329,334
18. Manufacture of food, beverages & tobacco products	897,829	279,559	190,872	269,656	205,570	945,658
19. Manufacture of textiles, wearing apparel and leather related products	727,383	224,233	88,426	264,220	109,468	686,347
20. Manufacture of wood and of products of wood and cork, except furniture	27,699	9,343	2,096	5,525	8,830	25,794
21. Manufacture of paper products, printing and reproduction of media products	63,176	20,051	9,573	11,953	17,298	58,876
22. Manufacture of coke and refined petroleum products	83,917	20,671	14,820	11,233	16,335	63,060
23. Manufacture of chemical products and basic pharmaceutical products	115,077	24,171	29,608	29,529	31,121	114,430
24. Manufacture of rubber and plastic products	101,898	13,838	20,271	31,669	30,211	95,989
25. Manufacture of other non-metallic mineral products	166,363	40,069	31,082	35,400	49,030	155,581
26. Manufacture of basic metals and fabricated metal products	68,917	22,668	6,818	15,453	21,837	66,775
27. Manufacture of machinery and equipment i.e..	73,356	20,450	9,673	20,489	28,322	78,934
28. Manufacture of furniture	65,298	20,081	11,940	15,012	17,816	64,850
29. Other manufacturing, and repair and installation of machinery and equipment	65,924	18,315	13,560	20,354	17,852	70,080
30. Electricity, gas, steam and air conditioning supply	118,653	27,114	28,669	31,156	29,771	116,710
31. Water collection, treatment and supply	19,675	4,377	5,150	5,191	4,570	19,288
32. Sewerage, waste, treatment and disposal activities	22,346	5,660	5,533	6,188	5,185	22,566
33. Construction	1,121,659	245,233	202,910	264,161	303,468	1,015,772
Services	8,723,236	2,255,258	1,864,427	2,342,509	2,471,543	8,933,737
34. Wholesale and retail trade	1,647,971	443,411	464,982	442,627	396,617	1,747,637
35. Transportation of goods and passengers including warehousing	1,715,466	385,143	243,092	481,906	506,720	1,616,861
36. Postal and courier activities	5,589	1,506	1,378	1,300	1,576	5,761
37. Accommodation, food and beverage service activities	227,231	60,065	19,979	32,880	30,914	143,839
38. Programming and broadcasting activities and audio video productions	4,099	966	1,062	973	1,035	4,036
39. Telecommunication	89,158	24,549	23,707	25,208	25,420	98,885
40. IT programming consultancy and related activities	26,215	6,610	7,558	7,637	8,342	30,147
41. Financial service activities and auxiliary financial services	622,398	167,262	157,936	182,463	214,230	721,891
42. Insurance, reinsurance and pension funding	166,314	49,158	51,105	40,330	65,695	206,288
43. Real estate activities, including ownership of dwelling	891,455	240,179	190,489	243,229	246,985	920,882
44. Professional services	260,735	66,980	56,980	69,494	71,770	265,223
45. Public administration and defense; compulsory social security	897,143	232,567	201,509	231,315	280,185	945,576
46. Education	336,126	88,350	77,327	91,925	113,754	371,356
47. Human health activities, residential care and social work activities	358,947	96,637	103,988	103,428	109,429	413,482
48. Other personal service activities	1,474,390	391,874	263,336	387,793	398,869	1,441,873
Equals Gross Value Added (GVA) at Basic Price	13,969,403	3,614,757	2,877,601	3,785,574	3,837,770	14,115,701
Taxes less subsidies on products	1,043,551	229,323	129,745	301,575	196,652	857,294
Equals Gross Domestic Product (GDP) at Market Price	15,012,953	3,844,079	3,007,345	4,087,148	4,034,422	14,972,995

(a) Based on the GDP estimates (base year 2010)

Source: Department of Census and Statistics

(b) Revised

(c) Provisional

Action Plan

- 1 To gather knowledge on coconut sector development, conduct literature reviews on current global and local best practices.
- 2 The Coconut Research Board, Coconut Cultivation Board and Coconut Development Authority should act as one entity to develop the sector.
- 3 Location of regional offices to be closest to areas where coconuts are planted. If not, relocate/ increase the number of regional offices to cater to the requirements of these coconut plantations.
- 4 Expansion of coconut cultivation land by 20%, which will be an additional 200,000 acres of land allocated for growing coconut.
- 5 The current total land area used for coconut plantation is one million ninety five thousand (1,095,000) acres. To increase the land area under coconut cultivation, initiate a program with 14,022 Grama Nildhari Divisions, along with agriculture development officers to identify land spaces available within existing lands, where 50 trees per acre can be increased to 60 trees per acre.

Action Plan

- 6 To train all agriculture development officers at each Grama Niladhari Division create training videos in Sinhala and Tamil on,
 - a. How to identify free space at existing coconut cultivated lands (smallholders)
 - b. How to identify other small lands that can be used to plant coconut
 - c. Cultivation practices
 - d. Water management
 - e. Nutrient management
 - f. Pest and disease management
 - g. Farm implements (equipment) for coconut
 - h. Harvest and post-harvest technologies
 - i. Coconut processing
 - j. Schemes and services for coconuts
 - k. Marketing strategy for coconut
 - l. How to maintain farmer-officer relationship

- 7 Coconut seedling production in 2020 was only 2 million seedlings. The target set for 2021 is to increase seedlings to 4 million per annum. If the same number of seedlings of 4 million will be continued for the coming 10 years, this will result in the cultivation of 40 million trees within a decade.

- 8 2,500 - 3,000 coconuts are cultivated per acre of land. On average, one acre has 50 coconut trees with nuts per tree ranging from 50 - 60. When compared with countries such as India and Indonesia, nuts per tree produced in Sri Lanka is low. To increase nuts from 60 to 90 per tree, hybrid coconut varieties should be introduced.

- 9 To address the seedling shortage of high yield coconut varieties such as the 3 most significant coconuts in Sri Lanka, namely,
- a. Kapruwana
 - b. Kapsuwaya
 - c. Kapsetha, a policy decision should be taken to encourage people who have 100 acres or more by supplying them with 6,400 seedlings from any of the above 3 varieties to develop 10 large-scale private sector coconut seedling farms.

Achievement of this project would be the availability of 3 million coconut seedlings from Kapruwana, Kapsuwaya and Kapsetha varieties. These 10 coconut seedling farms will contribute to the development of the coconut industry by creating new jobs and by sharing their,

- a. Cultivation practices
- b. Water management techniques
- c. Nutrient management techniques
- d. Pest and disease management techniques
- e. Farm Implements (equipment) details
- f. Harvest and post-harvest technologies
- g. Coconut processing methods
- h. Schemes and services information
- i. Marketing assistance and seedling buyer linking for the new farmers

The current process of buying Kapruwana, Kapsuwaya and Kapsetha requires a permit to purchase 10 plants out of any of the 3 varieties. The approval process for the permit takes 365 days, which is a hassle for potential growers.

Action Plan

- 10 All areas in Sri Lanka can be used to grow and cultivate coconut including Walapane, Kothmale and Hagurukanketha, except for other areas in Nuwara Eliya.
- 11 Constant supply and availability of fertilizer at each village.
- 12 Create awareness videos on water management in coconut cultivation on YouTube with free access for farmers to watch and learn.
- 13 Introduce an app similar to Coconut Expert System developed by Tamil Nadu Agriculture University in India.

The app will consist of,

- a. Cultivation practices for coconut
 - b. Water management for coconut
 - c. Nutrient management for coconut
 - d. Pest and disease management for coconut
 - e. Farm implements (equipment) for coconut
 - f. Harvest and post-harvest technologies for coconut
 - g. Coconut processing
 - h. Schemes and services for coconut
 - i. Marketing and institutions for coconut.
- 14 Conduct a comparison study with Coconut Development Board in India and Indonesia to identify further areas of improvement in fields such as new technologies, land expansions, seedling nursery developments and any other new project initiatives.
 - 15 Introduce coconut varieties that have a short stem and slow growth in height.
 - 16 Introduce a King coconut variety that has the same coconut water taste throughout.

- 17 For export purposes, introduce sweet young coconuts that have the same coconut water taste, similar to sweet young coconuts in Thailand.
- 18 Efficient inter-crop management
 - a. Locate lands out of currently cultivated lands of one million ninety-five thousand (1,095,000) that have already planted other crops such as Rambutan, Turmeric, Pepper, Vanilla, Banana, Pineapple, Katu Anoda to assist the farmers to get better harvests.
 - b. Locate lands out of currently cultivated lands of one million ninety-five thousand that have not planted other crops such as Rambutan, Turmeric, Pepper, Vanilla, Banana, Pineapple, Katu Anoda to introduce the above intercrop varieties to increase farmers' income.
- 19 Total exports of coconut kernel, fibre, shell, finished products (fibre), other products such as coconut ekels and coconut handicrafts/wood stood at USD 665 million in 2020. Whereas tea export was USD 1,240 million and rubber was USD 816 million.

The coconut export industry can be doubled if an additional 1.2 billion coconuts are produced. USD 665 million export income will increase to USD 1,330 million. Coconut will surpass tea and rubber exports and will be the highest export income-generating product category.

- 20 Total households in Sri Lanka are 5.7 million. Out of that, 36% of households (2 million) have blenders. Only 50% of them (1 million) use blenders for coconut milk extraction. For the balance of 1 million families who are currently not using blenders for milk extraction, a video can be made on how to use blenders for coconut milk extraction.

Action Plan

- 21 Oil-free appliances such as air fryers can be introduced as a way to minimise the usage of oil in-home cooking.
- 22 Strategy to be made to disburse subsidies to 5% of total acres of coconuts planted (for 50,000 acres). Currently, only 3,000 acres are benefited from subsidies, which is only 0.3% of the total area under coconut.
- 23 Discourage selling of coconut oil as loose oil. Often sellers who are selling loose coconut oil, use palm oil to mix as a way of increasing the quantity of coconut oil sold , since the purchase of pure coconut oil is expensive.

To produce 1 tonne of refined coconut oil, 3 acres of coconut cultivation is required. On the other hand, to produce 1 tonne of palm oil, only 1 acre of oil palm cultivation is required.

As a result, costs associated with coconut production is 50% higher than palm oil production.

To cater to imports of 200,000 tonnes of palm oil in Sri Lanka by supplying 200,000 tonnes of coconut oil, 1.7 billion additional coconuts are needed (for one tonne of coconut oil 8,500 nuts are needed).

Where the current practice is selling coconut oil as loose oil, consumer authority officers can check the levels of iodine to guarantee customer safety.

- Iodine levels of coconut oil range from 8-12
- Iodine levels of palm oil range from 56-60
- When coconut oil is mixed with palm oil, the iodine levels go up 25-30.



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