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Ancient Food and Farming systems in Sri Lanka

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It is acknowledged that Sri Lanka has been the home of one of the earliest civilizations in the world. Archaeological evidence indicates that about the 10th century B.C there were people who knew how to make a fire and make pottery (Daraniyagala, 1992). Before the consolidation of agriculture, these hunter-gatherers used a wide range of plant species for food and medicine. In this process, they enhanced their knowledge on edible plants and learned about those which were toxic (Querol, 1992). This knowledge was transmitted from generation to generation.

Traditional Farming Systems in Sri Lanka

The development of agriculture in Sri Lanka, as in any other country, has been gradual starting first with the planting of a few seeds of the most useful plants in the area surrounding the gatherer's camp and later around the settlements of settled populations. According to Siriweera, a man made agro-ecosystem probably began to evolve around sixth and fifth centuries B.C. The people developed cultural practices and farming systems according to the requirements of the plants with the improvement of knowledge on the environmental responses of each plant cultivated. According to historical evidence, three major types of farming systems have been adopted by the Sri Lankans from the earliest time (Siriweera, 1990).

Paddy Cultivation

The most widely practised farming system in Sri Lanka is paddy cultivation. Being the staple food, paddy has been cultivated from ancient time in the valleys of the Mahaweli Ganga and the Malvatu Oya. More areas were brought under cultivation with the construction of tanks and canal systems for irrigation. Short and long duration varieties of paddy were selected for cultivation in both Yala and Maha seasons, respectively. According to the ***Mahavamsa***, not only was Sri Lanka self sufficient in rice, during the reign of king Parakramabahu the Great (1159-1186 A.D) rice was also exported to other countries.

A large number of rice varieties were developed and selected by our farmers to suit to various agro-climatic conditions and to the preferable characteristics, such as colour, smell taste and nutritive values.

According to ***Poojavaliya***, written in 10th century A.D. more than 200 varieties were cultivated in Sri Lanka. Robert Knox in his "An historical relation of the Island Ceylon" provides evidence that a number of rice varieties with different life span were used by the farmers during the Kandyan Kingdom. "They had several sorts, and called by several names according to different times of their ripening: However, in taste little disagreeing from one another. Some will require several months before it come to maturity, called mauvi; some six, Hacteel; while others will ripen in five, Honorowal; other in four, Hinat; and other in three, Aulfancol: In 1902, Chief Nugawela Dissawa exhibited a collection of over 300 local rice varieties at the Kandy Agro-horticultural and Industrial exhibition. By 1993, over 3000 rice varieties were collected and conserved in the Plant Genetic Resources Centre of the Department of Agriculture, Gannoruwa, out of which, a significant percentage consists of traditional varieties.

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Buffalo and cattle rearing played a vital role in agrarian economy in the past. They were widely used in paddy cultivation, particularly, in land preparation and thresting of the harvest. Besides, cows milk was used in preparation of pasgorasa (five products from milk) namely milk, curd, butter milk, ghee and butter.

Chena Cultivation

The farmer chooses a patch of forest and cuts down some of the trees, leaving only larger and economically important trees, clears the undergrowth with a knife or cutlass and burns the debris. Virgin land of the chena was fertile since it contained minerals from ash. Crops were planted for several years on some land until it become less fertile and then cultivation shifted to a new area.

Chena provided varius types of food: grains, pulses, vegetables, oil crops and sugar crops. Upland rice varieties ***(Oryza sativa)*** are known as **goda wee or al wee** were grown in chenas. Kurakkan or finger millet (***Eleusine coracana***) which was considered as the second staple, meneri, (***Panicum miliaceum***), thanahal (***Setaria italica***), (***Paspalum scrobiculatum***) and heen meneri (***Panicum miliare***) were the common coarse grains cultivated in chenas. Mung been (***Phaseolus aureus***), black gram (***Phaseolus mungo***) and long been (***Vigna marina***) were the protein rich pulses, vegetables such as wattakka (***Cucurbita maxima***), melon (***Cucumis melo***), ash melon (***Benineasa hispide***), bottle gourd (***Lagenaria siceraria***), fence gourd (***Luffa accstangala***), snake gourd, egg plant (***Solanum indicum***), Thibbatu (***Solanum indicum***), ladies fingers also cultivated as mix crops in chenas. Oil crops grown in chenas were (***Sesamum indicum***) and mustard (***Brassica alba***). Sugar cane (***Saccharum officinarum***) was used as a sugar source and people knew how to prepare honey and **jaggery** out of it.

All these crops were cultivated in the same land, and in many cases seed mixture of different crops were sown on the wet land after yala maha monsoon rains.

Although, throughout the heyday of the dryzone civilization particularly, three crops grown in swidden plots namely cotton, sugar cane and gingili were important and three principal cottage industries developed around them. In literature there are frequent references to ***kapuhen, uk hen***, and ***tala hen*** which mean swideen plots where cotton sugarcane and sesame were grown (Siriweera, 1978).

The chena cultivation has the following advantages.

1. **Chena crops are often high yielding.**
2. **Chena cultivation normally requires a low energy input.**

Further mixed cropping practised in chenas has some distinct advantages from the agronomic point of view. First it ensures food security. Since a large number of crops are cultivated, failure of one or another crop due to adverse conditions can be compense with the survival of other food crops. Cultivation of various crops with valuable food and nutritive values ensures food and nutritional security throughout the year. Secondly, mix cropping increase the food production per unit of land. Various researchers have shown that mix cropping increases the productivity, compared to monocropping, due to intercrop completion and rational utilization of soil minerals. The third reason is that mix cropping reduces the spread of pest attacks and diseases in a crop since other crops act as a biological fence.

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Home gardening

Home gardens were maintained from early time. Useful fruit, vegetable and medicinal plants were cultivated around the houses. Composition of plants cultivated varied according to agro-climatic conditions of the area, although traditional root and tuber crops, jak (***Artocorpis heterophyllis***), coconut (***Cocos nucifera***), areacanut (***Areca catechu***). wineplam (***Caryota urens***), banana (***Musa sp***), sugarcane (***Saccharum officinarum***), ginger (***Zingiber offcinale***) turmeric (***Curcuma domestica***), citrus species such as orange (***Citrus aurantifolia***) and lime (***Citrus aurantium***) and other important food and medicinal plants were commonly cultivated in home gardens.

Role of forest in ancient food system

In addition, it is very well known that the forest played a vital role in the food system of our people. It provided a wide range of food varieties. Wild yams such katuala (***Dioscorea pentophylla***), hiritala (***D. oppositifolia***), gonala (***D. spicata***) were a good source of carbohydrate during hungry seasons. Seeds of hal (***Vataria copallifera***), beraliya (***Shorea megistophylla***) and madu (***Cycas***) and plant heart of kitul, indi, madu and thala were ground to flour and used for various preparations. Wild bread fruit and banana have been used from prehisroric era (Daraniyagala, 1992). Large number of forest plants such as woodapple, indi, wira, palu, longan, velvet tamarind, tamarind, donga, timbiri, ulkenda has been used as fruits.

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Traditional Food Systems in Sri Lanka

Culinary is one of sixty four noble arts in ancient Sri Lanka Rice was the staple of ancient Sri Lankans. Normally, rice was steamed and eaten, although several types of preparations were recorded in the literature. It was cooked in oil (***tela-bhatta***) or made sour (***ambila-bhatta***). It was frequently served as sweet dish with various ingredients, such as raw sugar (***Sakkara***), lump sugar (***Gula***), honey (***Modhu***) or clarified butter (***Sappi***). Sankhata modhu payas was milk rice prepared with sugar, honey, ghee and oil. Rice cooked in the milk of the king coconut, ghee and five spices was considered excellent dish.

Flesh of animals, fish, vegetable and pulses were offered with rice. They were prepared according to seven methods (***Hatmaluwa***), namely ***Ambula, Hodda, Niyambalawa, Malluma, Godamas, Diyamas*** and ***Baduma*** other cereals particularly, ***Kurakkan*** were eaten and number of preparations such as sweetmeats were enjoyed by our ancestors.

They had the knowledge to destroy the toxic compounds of some foods during the preparation. They also identified some food varieties that should not be eaten together since they may be harmful. They knew food varieties which were good for various ages. The unique knowledge accumulated with women which was transmitted from generation to generation from mother to daughter.

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Although the farmer presently uses the tractor for preparation of land for paddy cultivation, the farmer in ancient times used only buffaloes and plough for this work. Even today the buffaloes and the plough are commonly used for the same task in many village areas due to the reason that farmer knows that soil fertility and structure are well protected when animals rather than machinery are used for the land preparation work.