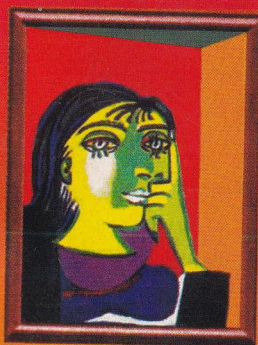


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## **Organic Farming - Concepts for a Greener Revolution, Result of an Action Research - Indian Experience**

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**Dr. P. Kamalasanan Pillai**

India, one of the oldest civilizations known for its diverse cultural heritage is known for its rich agricultural heritage also. With the diverse soil forms and diverse agri-ecological zones, rich biodiversity has evolved a holistic system of farming which has stabilised over the years and became a part and parcel of the daily life style of the farming community. Like Ayurveda the principles and concept of production of 'annam' (food) from water, air, earth and space with 'agni' (fire) the 'panchaboothas' were very clear and the traditional technology was for the optimum use of the above factors for maximum production of 'annam' (food).

India's traditional farming system was highly energy - efficient even when the modern sources of energy like, oil, coal, electricity and nuclear energy were not available. Even the people were using agri-based energy systems like oil, wood etc even for lighting, cooking and transport. There were perfect systems of soil conservation like bunding and terracing for maximum water conservation and infiltration. The modern process of selection of seed, seed storage and



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seed priming systems etc were borrowed from our traditional system. There was perfect land preparation systems with the help of the diverse implements jointly designed and produced by our blacksmiths and carpenters. The traditional organic manure, compost, liquid formulations, and pest repellents were very effective for the growth and productivity of crops. Cropping activities were synchronized with lunar and solar cycles, monsoon and 'rithus' (senses) often associated with a seasonal festival like Onam and Pongal. Traditional system was also known for its efficient nutrient management and recycling of agro-waste by integrating livestock like dairy, poultry etc with farming. There was rectangular and triangular methods of farming, multi-tier farming for the maximum usage of sunlight. Check dams, water harvesting structures, head pond, tail pond connecting canal and lift irrigation systems like "petti and para" formed perfect system of water harvesting and distribution. Water loss was prevented by earthing up, mulching to prevent evaporation and capillarity loss; and transpiration loss was prevented by pruning the plant at the onset of summer.

All the system toppled with European colonization forcing the farmers to grow industrial crops like cotton, indigo, tobacco and jute in place of food crops. There was no popular govt. to look into crop development and crop epidemics. The rulers exploited and harassed the farming community with heavy tax. The two continuous world wars again improvised farming and diverted the resources to war. It was at this time as a result of industrialization, petrol engine and chemical factories emerged in Europe. Role of nutrients in crop growth was found out and a system to produce NPK fertilizer, pesticides and weedicides also was introduced which was a post war development. It was at this time that food shortage and famine started and at this time almost