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A Detailed Study of Transfer of Indian Agricultural Knowledge to the West

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ABSTRACT
The transfer of Indian knowledge to the west has always been a routine phenomenon. The grim reality is the non-acceptance of the same knowledge by Indians when it is in India and acceptance of it when it is reconceptualised by the westerners and sold to India as their own technology and innovation. Indian knowledge to the west is being appropriated by the westerners, digested by them, then they rename it, call it their own, sometimes they twist it around, re export it to us. We Indians pay for that knowledge to the west and give them honour. This knowledge covers many fields and one such field is agriculture, the knowledge about botany, the knowledge about organic farming practiced in agriculturally rich India during the Vedic times. Vedas says "In this soil lies your future. Take care of it. It will sustain you and provide you with food, clothing, shelter and beauty. Destroy it and it will destroy you". This wisdom was shared 4000 years ago. The Vedic people knew the importance of manure created by cow dung, dry leaves, and other materials to get good produce.
The primary goal of this study is to study the origin of organic farming in India and how it has revolutionized the modern agricultural system which is against chemical farming and promoting the valuable Indian organic farming agricultural system. It's high time now to look upon organic farmers as our new physicians as aptly stated by Dr. Vandana Shiva is a well-known Indian academic, environmentalist, proponent of food sovereignty, ecofeminist, and author who opposes globalisation.
Keywords: Vedas, organic farming, chemical farming, industrialization, knowledge

Introduction:
India's geographical features, including its temperature, sand, and alleviation, have shown to be very helpful for the cultivation of a variety of crops. For Indians, agriculture is their most important source of livelihood. In India the state of agriculture 100 years before the modernization started was very prosperous one as the agricultural land yielded good produce due to traditional farming methods. The Britishers were studying our agriculture. They sent Albert Howard to India to change the agricultural system. Indian agricultural system was accepted by the westerners when the world started paying the price for chemical farming. Albert Howard regarded Indian peasants and pests his professors. He wanted to learn from them the art of good farming. He acknowledged two things of India-

1. Monoculture which was based on pluralism of diversity of crops. It was an Indian invention.
2. Indians practiced the law of giving back. By recycling the crops, they gave life to the soil. If favours are not returned back, humans are abandoned by nature. No farmer of India planted a cereal without a legume. Indians were aware that legumes were nitration fixing plants when the wests were still engaged in a debate whether pulses fix nitrogen.

Indians in the past have given a valuable lesson to the world by overcoming greed to exploit nature in the name of modernization. Growth is accelerated at the expense of deterioration. Crop production no longer qualifies as good farming when soil reserves are depleted; it becomes something quite different. A bandit is created out of the farmer.

Vedic Period and Agriculture

Vedas says “In this soil lies your future. Take care of it. It will sustain you and provide you with food, clothing, shelter and beauty. Destroy it ad it will destroy you. This wisdom was shared 4000 years ago. Vedic agricultural is natural free of pollutants conventional cultivation technology that is grown by farmers and has Vedic knowledge. It is free of any harmful fertilisers, pesticides, and herbicides. Vedic food, which is the purest, healthiest, and most essential food obtainable everywhere, will be produced by Vedic agriculture. It immediately integrates the wisdom of nature into our human body to develop a mind and body capable of experiencing life to the fullest (Parmar). The Vedic people knew the importance of manure created by cow dung, dry leaves, and other materials to get good produce. They divided the plants in to different groups The Rig Veda, Atharva Veda, and Bhagavad-Gita include incredibly detailed information on agriculture, including crop, cultivation, manuring, categorization of herbs, and many plant species. The principles of Vedic agriculture are outlined in the Bhagavad-Gita, a book of timeless Vedic wisdom that is highly regarded across India. In ancient Tetra Upanishad it is aptly stated that everything is food, everything is else’s food. Food web is the web of life. Since times immemorial agriculture has been the source of livelihood for people in India. Almost around 75 to 80 % of the Indian population was dependent on farming. Agriculture was the chief means of survival for the Vedic people. Basically, agriculture means the culture of taking care of land. If that culture is missing, you are not doing agriculture. India is a culturally, spiritually and academically rich country.

Organic Farming

An agricultural approach known as organic farming emphasises methods like alternate cultivation and companion planting as well as organic fertilisers including green manure, compost manure, and bone meal. Various organisations are still working to enhance organic farming today. In comparison to conventional agriculture, organic farming uses fewer pesticides, prevents soil erosion, stops nitrates from seeping into surface and groundwater, and recycles waste from livestock back into the farm. Basic organic farming and Mixed Organic Farming are the two types of organic cultivation that are most common.

“Pure organic farming” is an extremely uncommon form of organic farming. Because only organic fertiliser and ecological pesticides are used in the production of crops in natural farming, this is the reason. It expressly restricts the use of any pesticides or inorganic chemicals of any kind to increase productivity or output and other "integrated organic farming," which mixes strictly organic farming with carefully regulated chemical fertilisers and extensive insect prevention. In this type of farming, producers create plants using organic resources, just like they would in organic farming. However, they will use additional inputs to boost the vitamins and minerals and safeguard the plants from insects as well (Taki). These benefits are counterbalanced by higher food costs for consumers and generally lower yields. Crop rotation, inter-cropping and minimal tillage are also used to improve soil fertility, structure, and water holding capacity in organic farming. System of organic farming depends on crop leftovers, crop rotations, and animal. To sustain efficiency and tilth, to provide plant nutrients, and to manage herbicides and other pests, farmers use manure, legumes, green manure, off- and on-farm organic wastes, mechanical production, hematite-bearing rocks, and biological pest control techniques (Singh).

To control and advance organic farming in India, the Indian government introduced the National Programme for Organic Production (NPOP) in 1990. The NPOP offers guidelines for organic farming and certifies organic goods. Compared to chemical farming, organic farming provides a number of advantages. It conserves water, lessens pollution, and aids in maintaining soil fertility and biodiversity. In addition to promoting nutritious food, organic farming increases farmer revenue. Demand for organic goods has significantly increased recently, both in India and around the world. In India, the organic agricultural industry has been expanding at a rate of about 20% annually. The government has also launched a number of programmes to support organic farming, including financial aid, the promotion of organic agricultural clusters, and the development of market connections for organic goods.

Because he was the first to use contemporary scientific knowledge and techniques on conventional agriculture, British botanist Sir Albert Howard is frequently referred to as the father of modern organic agriculture. He presented convincing evidence supporting the relationship between the wellbeing of the soil, plants, and animals.

The concepts of organic agriculture were created in the early 1900s by individuals like Sir Albert Howard, F.H. King, Rudolf Steiner, as well as others who believed that employing animal manures (often transformed into mulching), cover cropping, plant rotation, and relying on biology pest management made a better farming system. Howard was profoundly influenced by the traditional and sustainable farming techniques he learned about while undertaking studies on agriculture in India and pushed for their adoption in the West. J.I. Rodale and his son Robert, who edited the magazine Organic

Gardening and Farming and various publications on organic farming beginning in the 1940s and on, were proponents of such techniques.

The following are some of the farming-related factors: farm size, farm expertise, organic farm training, efficiency/profit, and cost of production, issues, animal units, farm categories, farm ownership, place of residence, and others (Sapbamrer).

Indian agricultural knowledge's effects on Western agriculture

Indian agricultural knowledge has greatly influenced Western agriculture, especially in the development of organic and sustainable farming methods. Indian agricultural knowledge has placed a strong emphasis on the utilisation of natural inputs like compost and bio-fertilizers, crop diversity, and soil health and fertility. As they have been proven to be successful in boosting crop yields, lowering the use of hazardous pesticides and chemical fertilisers, and enhancing the general health of agricultural ecosystems, these practises are being increasingly adopted in Western agriculture.

The development of cutting-edge irrigation and water management methods, like drip irrigation and rainwater harvesting, has also been impacted by Indian agricultural knowledge in Western agriculture. The efficiency of water use in agriculture has increased because to these methods, which have proven beneficial at conserving water resources.

New crop types and farming practises that are better suited to local locales and climatic conditions have also been developed as a result of the spread of Indian agricultural knowledge to the West. As a result, Western agriculture is now more resistant to environmental problems like drought and climate change.

Overall, Indian agricultural knowledge has had a significant and beneficial effect on Western agriculture, resulting in the implementation of healthier and more sustainable farming practises, the creation of cutting-edge technological innovations in agriculture, and a boost in crop productivity and nutrition.

Impact of globalization and industrialization on agriculture sector

In Britain, the Industrial Revolution was made possible by the agricultural uprisings of the eighteenth century. The output of food was increased as a result of new farming methods and enhanced cattle breeding. This led to a population boom and improved health.

Farmers were encouraged to switch from traditional crops to export-oriented "cash crops" like cotton and tobacco as a result of globalisation, but these crops required significantly more water, fertiliser, and pesticide inputs. The growth in yields of major crops, including rice and wheat, has also slowed down. Agriculture as a result of industrialization damages economic opportunities, diminishes human resources, and harms the environment. Industrial agriculture has an inherent inability to sustain its output and social value. Every sustainability test is a failure. Globalisation has had a tremendous impact on the agriculture industry, both positively and negatively. Positively, globalisation has allowed the cross-border movement of agricultural goods and technologies, increasing market access and enhancing the effectiveness of the agricultural supply chain. Additionally, access to new markets and crop diversification made possible by globalisation have increased farmer incomes and enhanced food security.

Globalisation has had detrimental effects on the agriculture industry as well, particularly for small-scale farmers. Farmers have been under pressure from the global competition to boost their output and save expenses, which frequently leads to the use of unsustainable farming methods for instance, using excessive amounts of chemical fertilisers and insecticides. The agricultural sector has also been consolidated as a result of globalisation, with larger agribusinesses controlling the market and small-scale farmers finding it difficult to compete.

Agriculture and related industries are being directed to increase effectiveness, capacity, and cost toughness as a result of the globalisation process. As India's agricultural products enter the global market, there is an upsurge in agriculture-related goods, cutting-edge technology, new seeds, etc.

Multiple crops and updated organic agriculture

Growing two or more crops simultaneously or one after another on the same piece of land during the same cropping season is referred to as multiple crops. A type of intercropping where the space between the rows of the primary crop is covered with a secondary crop. Growing one particular product in the same location for an entire year is known as monoculture. For instance, rice after rice and jute after jute. Two varieties of crops are alternately produced on a plot of land in the Duo culture each year. Similar to intercropping, mixed cropping, also known as multiple cropping, is cultivating two or more crops concurrently on the same plot of land. This kind of cropping technique can increase crop yield while enhancing soil fertility.

In 187 countries, organic farming is conducted, and at not much 3.1 million growers used organic practises to manage 72.3 million acres of land used for agriculture. Between 2014 and 2020, the amount of cultivable land used for organic

farming more than doubled, from 11.83 million ha to 29.17 lakh ha. The establishment of state-specific organic trademarks, an increase in local supply, and exporters of chemical-free commodities from the northeast area were all results of organic promotion operations throughout time. In India, organic farming is still in its infancy. The Union Council of Agricultural and Farmers' Welfare estimates that as of March 2020, 2.78 million hectares of cropland were being farmed organically This amounts to 2% of the nation's total net sown area of 140.1 million ha.

Conclusion:

What broad thesis statement would one use to begin an essay on India?? Won't it read something like ' India is an agricultural country'? The Google comes up with the same answer. Our identity cannot exist without agriculture. India's economy is centred on agriculture, which is still prized in the nation despite years of substantial industrialisation. Because it is the strongest sector in the country. So why are both the government and society neglecting our farmers? Why do the banks and insurance firms that are generally too interested in your dream home and car lose interest if you say your profession is farming?

The numbers say it all. Our people is economically dependent on agriculture to the tune of 70%. It employs the most people. However, it no longer accounts for more than 13.9% of the GDP. Nearly 60% of the GDP is produced by the service sector, which employs roughly 17% of the workforce. This disparity has caused an economic gap, damaged farmers' dignity, and diminished respect for agriculture as a vocation.

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