5. Coconut Cultivation in India - Economy

The Union Budget 2026- 27 announced a new 'Coconut Promotion Scheme' aimed at rejuvenating old, non-productive coconut gardens and expanding cultivation along coastal areas. India is the largest coconut-producing country, with 30.93% share of global production, & ranks second in terms of productivity.

1. The productivity per palm in India is higher than in Sri Lanka, the Philippines, and Indonesia.
2. For Example- In places like Anaimalai in Tamil Nadu, dwarf x tall hybrid palms regularly produce 250-300 tender coconuts per tree.

Coconut is one of the most important plantation crops of tropical regions, particularly in humid coastal climates.It plays a major role in nutrition, rural livelihoods, agro-industries, and export earnings.
In India, coconut is often referred to as "Kalpavriksha" (tree of heaven) because every part of the plant has economic value.

1. Botanical and General Characteristics

1. Coconut (Cocos nucifera) belongs to the Arecaceae (palm) family.
2. It is widely cultivated across South Asia, Southeast Asia, the Pacific islands, Africa, and Latin America.
3. The coconut tree is a perennial crop with a lifespan of about 60–80 years.
4. Commercial yield generally begins 6–8 years after planting.
5. India is the largest producer and consumer of coconut in the world, making it an important plantation crop.

2. Agro-Climatic Requirements for Coconut Cultivation

Temperature

1. Coconut grows best in tropical climates with temperatures between 20°C and 32°C.
2. Growth slows when temperatures fall below 15°C or exceed 38°C.

Rainfall

1. Coconut requires annual rainfall of about 1000–2500 mm.
2. Uniform rainfall distribution is beneficial for steady nut production.
3. Supplemental irrigation is required in drought-prone regions.

Soil

1. Coconut grows well in well-drained soils such as sandy loam, laterite, coastal alluvial, and red loamy soils.
2. Waterlogged soils are unsuitable because coconut roots require aerated soil conditions.

Altitude

1. Coconut cultivation is possible from sea level up to about 600 metres above sea level.

Humidity

1. High relative humidity above 60% is favourable for healthy growth and nut formation.

3. Major Coconut Producing Regions in India

Traditional Coconut Belt (West Coast)

Kerala

1. Traditionally the largest coconut-producing state in India.
2. Coconut cultivation forms the backbone of Kerala's plantation economy.

Tamil Nadu

1. One of the fastest-growing coconut-producing states.
2. Regions such as Pollachi and Anaimalai are major production centres.

Karnataka

1. Major coconut-producing districts include Tumakuru and Dakshina Kannada.

Expanding / Non-Traditional Regions

1. Coconut cultivation has expanded into several new regions due to irrigation support and improved hybrid varieties.
2. Important emerging states include Andhra Pradesh, Odisha, Gujarat, Assam, and Maharashtra.

4. Global Distribution of Coconut Production

1. Coconut cultivation is concentrated in coastal and island regions of the tropics.
2. Major coconut-producing countries include-
    1. Indonesia
    2. Philippines
    3. India
    4. Thailand
    5. Sri Lanka
3. Island countries such as Fiji and Samoa also cultivate coconuts extensively.

5. Economic Importance of Coconut

Nutritional Value

Coconut Water

1. Coconut water is a natural electrolyte-rich beverage containing-
    1. Potassium
    2. Magnesium
    3. Calcium
    4. Antioxidants
2. It is widely consumed as a natural hydration and recovery drink.

Medium-Chain Triglycerides (MCTs)

1. Coconut oil contains medium-chain fatty acids that are easily digested.
2. These fatty acids are rapidly converted into energy by the body.
3. They support metabolism and gut health.

Industrial Uses

Coconut Oil

1. Coconut oil is widely used in-
    1. Cooking
    2. Cosmetics
    3. Pharmaceutical products
    4. Biofuel production.

Coconut Shell

1. Coconut shells are used to produce-
    1. Handicrafts
    2. Activated carbon
    3. Charcoal.

Coir Fibre

1. Coir fibre is extracted from the coconut husk.
2. It is used for manufacturing-
    1. Ropes
    2. Mats
    3. Geotextiles
    4. Eco-friendly packaging materials.

Livelihood Importance

1. The coconut sector provides employment to over 12 million people in India.
2. Major livelihood activities include-
    1. Coconut farming
    2. Processing industries
    3. Marketing and trade
    4. Export activities.

6. Government Initiatives for the Coconut Sector

Coconut Development Board

1. Established in 1981 under the Ministry of Agriculture and Farmers Welfare.
2. Key functions include-
    1. Promoting coconut production and productivity.
    2. Encouraging value-added coconut products.
    3. Supporting processing industries and exports.
    4. Improving farmer income and welfare.

Technology Mission on Coconut

1. Focuses on integrated development of the coconut sector.
2. Major objectives include-
    1. Strengthening production systems.
    2. Improving post-harvest processing.
    3. Promoting value-added products such as-
        1. Virgin coconut oil
        2. Coconut chips
        3. Coconut-based beverages.

Coconut Palm Insurance Scheme

1. Provides insurance coverage for coconut farmers against-
    1. Natural disasters
    2. Pest attacks
    3. Disease outbreaks.
2. Helps reduce financial risk for farmers.

Coconut Promotion Scheme

1. Aims to improve coconut productivity through-
    1. Replacement of old and senile palms.
    2. Promotion of high-yielding varieties.
    3. Adoption of scientific cultivation techniques.

7. Challenges in Coconut Cultivation

High Domestic Prices

1. India faces high domestic coconut prices despite being the largest producer.
2. Major reasons include-
    1. Strong domestic demand
    2. Limited supply expansion
    3. Inefficient processing and supply chains.

Climate Change Impacts

1. Temperatures in coconut-growing regions are projected to rise by-
    1. 1.6–2.1°C by 2050
    2. Up to 3.2°C by 2070.
2. Higher temperatures increase vapour pressure deficit, leading to drought stress.

Declining Suitability in Interior Regions

1. Climate projections indicate reduced suitability for coconut cultivation in-
    1. Interior Karnataka
    2. Andhra Pradesh
    3. South interior Tamil Nadu
    4. Parts of the eastern coast of India.

8. Policy and Institutional Challenges

Overlapping Subsidy Framework

1. Both the Coconut Development Board and the National Horticulture Board provide subsidies for value addition.
2. This duplication leads to administrative inefficiencies and confusion among farmers.

High Compliance Barriers

1. The ₹150-crore Cluster Development Programme faced implementation difficulties due to-
    1. High investment requirements
    2. Strict compliance procedures.
2. Many Farmer Producer Organisations (FPOs) were unable to participate.

9. Way Forward for Coconut Sector Development

Mother Palm Gardens

1. State horticulture departments and agricultural universities can develop mother palm gardens.
2. These gardens will supply high-quality seedlings to farmers.

Climate-Resilient Research

1. Research institutions such as the Central Plantation Crops Research Institute and Tamil Nadu Agricultural University should develop-
    1. Heat-tolerant coconut varieties
    2. Drought-resistant cultivars
    3. Disease-resistant coconut genotypes.

Enabling FPOs and Private Nurseries

1. Farmer Producer Organisations and private nurseries should be encouraged to-
    1. Produce climate-resilient seedlings.

2. Support mass multiplication of improved coconut varieties.

Pilot-Based Cluster Development

1. Instead of large clusters, smaller specialised hubs could be developed such as-
    1. Tiptur – Ball copra production
    2. Anaimalai – Tender coconut production
    3. Pollachi – Coconut oil processing.

Conclusion

Coconut cultivation plays a vital role in India's plantation economy, rural employment, and agro-industrial development. Addressing climate risks, improving productivity, and strengthening value-addition chains can significantly enhance farmer incomes. Strategic investments in research, infrastructure, and institutional coordination will ensure the long-term sustainability and growth of the coconut sector in India.

Source- https-//www.thehindu.com/sci-tech/energy-and-environment/why-key-to-coconut-cultivation-today-is-sustainability-not-productivity/article70687654.ece