



The Superfood Sweetener

Jaggery Production and Processing in India

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India accounts for over **70% of global jaggery production**, firmly establishing itself as the **world leader in natural sweeteners**. Nearly 20–30% of the country's sugarcane output is diverted towards jaggery production, supporting around **2.5 million rural livelihoods**. The sector has also witnessed significant export growth. **Jaggery exports have increased by 106.5% in value** between 2015–16 and 2024–25, indicating rising international demand. **Nutritionally rich** in iron, minerals, and essential micronutrients, jaggery serves as a healthier alternative to refined sugar. Complementing this growth, government initiatives such as **Pradhan Mantri Kisan SAMPADA Yojana, PM Formalization of Micro Food Processing Enterprises Scheme, and One District One Product**, along with **GI tagging**, are playing a crucial role in promoting value addition, strengthening rural enterprises, and enhancing export potential.

Jaggery Sector in India: Production, Significance, and Livelihoods

Jaggery, commonly known as *gur*, is a traditional, unrefined, natural sweetener. It is produced by concentrating sugarcane juice without the use of chemicals. Often called “**medicinal sugar**”, it is nutritionally comparable to honey. Jaggery is widely consumed across **Asia, Africa, Latin America**, and the **Caribbean** under various local names. It is valued for its natural origin, traditional processing methods, and growing consumer preference for chemical-free sweeteners.

India accounts for **over 70 percent of global jaggery production**. This makes it the **world's largest jaggery producer**. Nearly 20–30 percent of the country's sugarcane production is used for jaggery production. It is one of the **major agro-processing industries** in rural India. The sector is marked by decentralized processing, low transport costs, small-scale entrepreneurship and cottage industries. It supports approximately **2.5 million livelihoods**.



Sweetening Growth: India's Expanding Jaggery Economy

India's jaggery sector is supported by substantial sugarcane production. In **2024-25**, total sugarcane output was estimated at **444.9 million tonnes (MT)**. **Uttar Pradesh** contributed 48.5 percent of total production, followed by **Maharashtra** (24.1 percent) and **Karnataka** (10.5 percent). Other producing states include Gujarat, Tamil Nadu, Bihar, Uttarakhand, Punjab, Madhya Pradesh, and Haryana.¹

India is one of the leading exporters of jaggery and confectionery products (including traditional Indian sweets and candies). In 2015-16, exports stood at USD 197 million with a volume of 292.8 MT. By **2024-25**, exports increased to **USD 406.8 million** with a volume of **471.9 MT**. This is a rise of about **106.5% in value** and **61.2% in volume** over the period.² Major export destinations in 2024-25 included **Indonesia**, the **USA**, the **UAE**, **Nigeria**, and **Nepal**.³

If we compare year-on-year growth, exports during April-January (2025-26) reached **450.1 MT**, valued at **USD 384.4 million**, registering an increase of about **16.5% in volume** and **15.9% in value** over the same period in 2024-25, when exports stood at 386.2 MT, valued at USD 331.4 million.



Domestic demand for natural sweeteners has also increased. In the sweetener segment, jaggery and honey have recorded a compound annual growth rate (CAGR) of **15–20 percent** during 2021-24. Jaggery sales in domestic markets had reached approximately 5,000 metric tonnes annually by August 2024. This indicates growing consumer preference for traditional and natural sweetening products.

The Ancient Roots of India's Jaggery Tradition

Jaggery is widely regarded as an **indigenous Indian product**. Its history is closely linked to the cultivation and processing of sugarcane, dating back to the **Vedic period**. Early references to sugarcane cultivation appear in Indian texts from around **1400–1000 BCE**. Scholars have suggested that early thin varieties of sugarcane evolved in the moist regions of **north-eastern India**. Over time, sugarcane cultivation spread across **tropical** and **subtropical regions**, making it an important global crop. The word "sugar" is derived from the **Sanskrit term sarkara**, indicating deep cultural roots of sweetener production in the subcontinent. Historical accounts note that in **647 AD**, a **Chinese mission** travelled to **Magadha** to learn sugarcane processing techniques. This demonstrates the early diffusion of Indian knowledge in the

¹https://agriexchange.apeda.gov.in/Production/India/Details?HSCCode=NMNR&product_Name=p%C2%92%C2%84~%C2%8F%C2%80~%C2%8B%C2%82&Category=%C2%84%C2%8F%C2%86

²<https://agriexchange.apeda.gov.in/India/ExportAnalyticalReport/Index>

³<https://apeda.gov.in/JaggeryAndConfectionery>

production of sweeteners. This long tradition of cultivation, processing, and knowledge transfer laid the foundation for India's enduring prominence in jaggery production.

Jaggery for Nutrition and Public Health

Jaggery is increasingly recognized as a superfood, a **natural, nutrient-rich alternative to refined sugar**. Jaggery is produced from concentrated sugarcane juice without chemical refining. It therefore **retains essential minerals and micronutrients** that are typically lost during the sugar-refining process. In India, sugarcane is processed into **jaggery, khandsari, and sugar** through distinct production methods. Jaggery is the most naturally processed of the three, and nutritionally the richest. Jaggery is widely used in a range of traditional foods and in liquid form. Its demand is steadily increasing, driven by growing health consciousness and a consumer shift towards natural sweeteners.

Besides its traditional use, jaggery is increasingly recognized as a healthier sweetener in **processed foods** such as bakery and confectionery products. With the continued expansion of this sector, jaggery variants such as **cane jaggery, palmyra jaggery, and raw jaggery** are progressively gaining market presence. This shift reflects evolving consumer preferences for natural,

minimally processed foods.



Nutritional Value of Jaggery

Jaggery retains most of the nutrients present in sugarcane juice, making it one of the **most nutritionally rich natural sweeteners**. It retains minerals like **calcium, magnesium, potassium, phosphorus, sodium, iron, zinc, copper, and manganese** that are lost in the intense refining for white sugar. A good-quality jaggery typically contains more than 70% sucrose, small amounts of glucose and fructose, and about 5% minerals, with low moisture content. **Iron** content (about 10-13 mg per 100 grams) contributes to **improved haemoglobin levels**, while potassium and magnesium support **cardiovascular and muscle function**.

Jaggery also contains trace amounts of vitamins, including **follic acid** and **B-complex vitamins**, as well as **vitamins A, C, D, and E**. These micronutrients make jaggery an **energy-rich food** that can help **address** deficiencies in these nutrients. Its **mineral salt content** is significantly higher than that of refined sugar. This makes it a suitable alternative for **dietary supplementation**, particularly in undernourished populations.

JAGGERY VS SUGAR



Proximate composition of sugar and jaggery (per 100 gm)



Constituent	Jaggery	Sugar
Sucrose	60-85g	99.5g
Reducing sugar	5-15g	-
Protein	0.4g	-
Fat	0.1g	-
Calcium	8.0mg	-
Iron	11.4mg	-
Phosphorus	4.0mg	-
Total minreals	0.6-1.0g	0.05g
Moisture	5-10g	0.2-0.5g
Energy	312-383 kcal	398 kcal
Vitamin	0.05mg	-

Gur also has 168mg carotene, 0.02 mg thiamine, 0.05mg riboflavin

Source: Ministry of Food Processing Industries

Integrating Jaggery into Nutrition Interventions

Jaggery has been included in Tamil Nadu's nutrition interventions to address child malnutrition and support school participation. The state provides complementary weaning foods under its nutritious meal program and the **Integrated Child Development Services (ICDS) framework**. This is distributed as Take-Home Rations to eligible beneficiaries for 300 days each year. Jaggery constitutes **approximately 27 percent** of this complementary food mix, enhancing its energy value and micronutrient content. The supplementary food is popularly known as **Sathumavu**. It is procured from **25 women-run weaning food manufacturing cooperative societies** and two private manufacturers in a 65:35 ratio.

These **cooperatives** collectively include about **1,450 members**. A significant proportion of them are widows, deserted, or economically vulnerable women. Jaggery thus integrates nutrition support with livelihood generation. As per **NITI Aayog**, the program provides nutritious food to nearly **32.75 lakh beneficiaries** across Tamil Nadu. While reducing malnutrition, the programme simultaneously promotes the use of nutrient-rich traditional ingredients such as jaggery.

Health Benefits of Jaggery

Jaggery provides sustained energy because its complex sucrose is digested slowly. It therefore releases energy gradually rather than causing rapid spikes in blood glucose. Iron gets absorbed during preparation in traditional iron vessels, making it beneficial to address anaemia. The presence of mineral salts and micronutrients supports overall health and strengthen immunity.

In traditional practices, like **Ayurveda**, jaggery has long been utilized as a therapeutic sweetener. Ayurvedic medicine considers it beneficial in treating throat and lung infections and supporting digestion. Its cleansing properties aid in detoxifying the respiratory tract and gastrointestinal system. This makes it especially beneficial for individuals exposed to dust and environmental pollutants. Its thermogenic (warming) effect is associated with relief from cough, congestion, and related respiratory discomfort.

Furthermore, jaggery is regarded as a natural detoxifying agent that supports blood purification. It is also believed to reduce fatigue, promote muscular and neural relaxation, and help maintain blood pressure. The presence of essential minerals such as calcium, phosphorus, and zinc supports bone health. Its reported anti-toxic and potential anti-carcinogenic properties contribute to overall physiological well-being.



Health Benefits of Jaggery

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- Aids in Treating Anaemia
- Strengthens Immunity
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- Acts as a Natural Detoxifying Agent
- Relieves Fatigue
- Relaxes Muscles and Nerves
- Maintain Blood Pressure

Jaggery, the Ayurvedic therapeutic sweetener, can aid in addressing malnutrition and micronutrient deficiencies in our population.

Source: NIFTEM and APEDA

From Cane to Livelihoods: Jaggery's Role in Rural Development

Jaggery production in India forms part of the **unorganized agro-processing sector**. It plays a significant role in supporting rural livelihoods and local economies. As a leading producer and exporter, the sector sustains farmers while catering to both **domestic consumption** and **growing export demand**.

As consumer preferences evolve and global demand rises, it has become necessary to diversify along the sugarcane value chain. This is needed to enhance farm incomes and ensure **environmentally** and **economically sustainable production systems**. **Value addition** through Jaggery production offers substantially higher returns than selling raw sugarcane to mills. Empirical evidence indicates that **integrating jaggery production** with practices like **crop diversification** and **intercropping** can significantly improve net returns per unit area.

Jaggery processing contribute to rural development by fostering entrepreneurship, generating local employment, and strengthening regional economies. Jaggery processing generates year-round **employment opportunities** and supports migrant labour engagement. The production of high-quality jaggery enables access to **premium markets**, augmenting farmer incomes. Strengthening **jaggery-based cottage industry** thus represents a viable pathway for promoting value addition, livelihood enhancement, and inclusive agricultural growth.

Organic Jaggery Powder as a Profitable Value-Addition Enterprise

Anthonisamy, a farmer from Tirunelveli district, **Tamil Nadu**, has successfully demonstrated the viability of jaggery production as a **value-added enterprise**. He produces **organic jaggery powder**. His product is known for its purity and superior taste. It has gained strong demand across local markets, neighbouring states, and even export channels. By adopting organic cultivation practices and processing a local sugarcane variety, he has transformed a traditional activity into a profitable enterprise.

The value-added approach has **significantly improved profitability**. According to the farmer, organic jaggery powder is sold at about ₹75 per kg, compared to ₹50 per kg for conventional jaggery. Production costs, for both, are about ₹30 per kg.

Though production is seasonal, market demand for jaggery remains consistent throughout the year, ensuring steady income opportunities. Building on this success, diversified products like jaggery flavored **chocolate** and **coconut**, are further expanding market reach. Backed by central government support, the enterprise highlights how small-scale processing can enhance incomes, promote rural entrepreneurship, and strengthen agro-based livelihoods.

Unlocking the Sweet Value Chain: India's Policy Push for Jaggery Ecosystem

The **Ministry of Food Processing Industries (MoFPI)** promotes infrastructure development and enterprise growth for the food processing sector through several central sector schemes. These include

- **Pradhan Mantri Kisan SAMPADA Yojana (PMKSY)**,
- **Production Linked Incentive Scheme for Food Processing Industry (PLISFPI)**, and
- **Pradhan Mantri Formalization of Micro Food Processing Enterprises (PMFME) Scheme**.

These demand-driven initiatives are implemented nationwide. They facilitate the establishment and expansion of processing units by adopting modern technologies. Beneficiary units are required to comply with **Food Safety and Standards Authority of India (FSSAI) regulations**. They are also encouraged to align with international food safety standards to improve export competitiveness.

PMKSY has a component called **Creation/Expansion of Food Processing & Preservation Capacities (CEFPPC)**. Five jaggery processing units have been approved under this as of December 31, 2025. Total grants-in-aid for this was **₹17.07 crore**. The PMFME Scheme has supported **3,528 jaggery based micro food processing units** with **subsidies totalling ₹102.31 crore**. The scheme also provides branding and marketing assistance of up to **50 percent** to collectives. These may include **Farmer-Producer Organizations (FPOs)**, **Self-Help Groups (SHGs)**, **cooperatives**, or **special-purpose vehicles of micro-enterprises**.

The **One District One Product (ODOP)** promotes local agro-based industries by enabling economies of scale

in input procurement, shared services, and market access. Jaggery and allied products have been identified as ODO items in **19 districts**. This has facilitated value chain development and strengthened support infrastructure.

Quality assurance and standardization are supported through the **Directorate of Marketing & Inspection (DMI)**. Agricultural commodities that meet prescribed standards are certified under the **AGMARK** system. These standards define quality grades and enable consumers to access reliable products. They also ensure graded raw materials for producers' remunerative prices for farmers. **Jaggery** is a notified commodity covered under AGMARK **certification, reinforcing quality assurance, market credibility, and export readiness.**



Geographical Indication (GI) Tagged Jaggery Varieties in India

A Geographical Indication (GI) is a name or sign given to certain products that relate to a specific geographical location or origins. This could be a region, town, or country. In the jaggery sector, **GI recognition strengthens regional branding.** It promotes traditional processing practices, and improves market access for rural producers. India has several GI-tagged jaggery varieties, each known for distinct regional qualities and traditional processing methods. **Kolhapur jaggery (Maharashtra)** is valued for its golden colour and high sucrose content. **Muzaffarnagar gur (Uttar Pradesh)** is export-oriented and made from high-quality cane. In **Keralam, Marayoor** and **Central Travancore jaggery** are recognized for their

purity, medicinal value, traditional processing and regional distinctiveness.



Towards a Resilient and Value-Driven Jaggery Sector

Jaggery production and processing form an important pillar of **India's agro-processing economy**. It links **agriculture, nutrition, rural livelihoods, and export potential**. As the world's largest producer, India benefits from a strong sugarcane base. Traditional processing knowledge and rising domestic and global demand for natural sweeteners further strengthen the case. The sector supports millions of livelihoods through decentralized cottage industries, offering opportunities for **value addition, rural entrepreneurship, and enhanced farmer incomes**.

In addition to its economic role, jaggery's mineral content and therapeutic properties make it a healthier alternative to refined sugar. It is a useful dietary supplement for addressing micronutrient deficiencies. Government initiatives promoting food processing infrastructure, micro-enterprises, quality certification, GI tagging, and value chain development are strengthening market access and product credibility. With continued policy support, improved processing practices, and diversification into value-added products, the jaggery sector holds **strong potential to drive inclusive and sustainable rural growth**.

References

Ministry of Commerce and Industry

<https://apeda.gov.in/JaggeryAndConfectionery>

https://apeda.gov.in/Food_Agri_Products_Registered_GI

<https://agriexchange.apeda.gov.in/production/India/index>

<https://agriexchange.apeda.gov.in/India/ExportSummary/Index>

<https://agriexchange.apeda.gov.in/India/ExportAnalyticalReport/Index>

<https://agriexchange.apeda.gov.in/India/ComparativeStatement/Index>

<https://www.pib.gov.in/PressReleaselframePage.aspx?PRID=2113966®=3&lang=2>

https://apeda.gov.in/sites/default/files/study_reports/Report_Indian_Organic_Market_and_Export_Promotion_Strategy.pdf

Ministry of Agriculture and Farmers Welfare

https://www.agriwelfare.gov.in/Documents/AR_Eng_2024_25.pdf

Ministry of Food Processing Industries

<https://niftem-t.ac.in/pmfme/DPR-Jaggery.pdf>

<https://www.mofpi.gov.in/mediapr/enewsfeb4.html>

<https://niftem.ac.in/newsite/pmfme/wp-content/uploads/2022/08/jaggeryprocessing.pdf>

https://sansad.in/getFile/loksabhaquestions/annex/187/AU116_pneN8S.pdf?source=pqals

Niti Aayog

https://www.niti.gov.in/sites/default/files/2024-07/Report-on-Promoting-Best-practices-on-Millet-26_4_23.pdf

Tamil Nadu Government

<https://cuddalore.nic.in/geographical-indications/>

https://agritech.tnau.ac.in/success_stories/sstories_farm_enter_2015_organic_jaggery.html

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