Marketing of Turmeric and Economic Development at Kandhamal

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ABSTRACT
India is the largest producer of turmeric in the world contributing around 78% in world production. The paper aims at studying the present status of turmeric produced by different states of India and the Export potential of turmeric with a special reference to Orissa. It also made an attempt to study the existing marketing channels operating in a tribal dominated District of Orissa, Kandhamal.

Key words: Turmeric, Export, Tribal Area

Agriculture is the mainstay of the Indian economy contributing 22.1 per cent to the GDP (2003-04). Liberalized Indian economy in 1991 could have considerably increased the Integration of the Indian economy in the global economy. Share of the agricultural trade in the country’s GDP increased from 16 per cent to 20 percent in the early nineties. Our country achieved self-sufficiency in food production, with the introduction of high yielding varieties and improved agricultural practices. During 1981-91, annual growth rate was spectacular at 3.5 per cent. This was due to introduction of technological missions on oilseeds, cotton and other pulses and cereals. The growth rate in agriculture was decelerated in the beginning of the Tenth Five Year Plan because of the extensive and severe drought conditions prevailed in several parts of the country. The agriculture growth rate was decelerated to 1.1 per cent in 2004-05. However, its progress was not consistent and symmetrical across the states leading to instability in agricultural production. The rate of growth in the production of principal crops showed a declining trend in recent years. Surpluses generated on the farm front led to promotion of exports in many cash crops.

Exports act as a foundation for the economic growth in developing countries like India. Agricultural exports have remained as backbone of India’s export and continued to be the bacon for future export growth. Agricultural exports potential is quite high in India. Agricultural exports are contributing around 18.18 percent to India’s total export earnings and also play a significant role in employment generation, particularly in the rural sector. The low import to export ratio enhances the significance of agricultural exports contributing a favourable terms of tradeto agriculture. In India, after achieving self – sufficiency in food grain production and globalization of agricultural trade, production of export-oriented crops is given priority. Presently India is exporting about 7500 commodities to 190 countries and importing almost 6000 commodities from 140 countries of the world.

There is an imperative need for India to enlarge its share of world trade, which has been gathering increasing momentum through the cascading effect of trade reforms and rapid integration of the world economy. Over the years, the share of India’s agro exports in total exports declined from 43.34 percent in 1960-61 to 30.60 percent by 1980-81 and it further declined to 2.36 percent by 2003-04. This is mainly attributed to the absence of diversification and lack of concerted efforts to tap the international markets. The New Agricultural Policy, emphasizes diversification of agriculture and promotion of farm exports. In this context, the production and export potential of cash crops, especially turmeric needs to be highly emphasized. In the wake of WTO, the country has to concentrate more on quality exportable products.

Present Status of Turmeric

Turmeric is grown as a Kharif crop in India. The country is the leading producer, consumer and exporter of turmeric in the world. It has near monopoly in this commodity. India turmeric has been known to the world since from ancient times. India accounts for 78% in world production and 60% in world export share. Major turmeric growing states are Andhra Pradesh (34%), Tamil Nadu (12%), Karnataka (6%) and Orissa (13%). Indian turmeric is considered as the best in the world because of its high curcumin content.

Importance of Turmeric:

Turmeric is mainly used as spice or flavourant; colorant of brilliant yellow dye, Cosmetic and drug. Turmeric has been used since ancient period for medical purpose. It has several medicinal properties like stomachic, carnivative, tonic, blood purifier, vermicide and antiseptic. It is also used as a dye in textile industry, in cosmetics, preparation of medicinal oils, ointments and poultice.

Objective of the Study

To identify the marketing channels of turmeric produced in Kandhamal.
To study the Export potential of Turmeric.
Scope of the Study

In the post WTO scenario, where quality production is the key to successful exports, the study of turmeric exports is all the more relevant because it could bring more valuable foreign exchange to the national economy.

Besides, very few researches have been conducted on issues pertaining to production and exports of turmeric.

Moreover many unorganized sectors are operating in the study area which could be organized for the betterment of the turmeric producers.

Global scenario:

India is considered as the largest producer, consumer and exporter of turmeric in the globe. Other major producers are China, Myanmar, Nigeria, Bangladesh, Pakistan, Sri Lanka, Taiwan, Burma and Indonesia, etc., Global production is estimated around 11 -11.5 lakh tonnes. India contributes about 78 per cent of the world production and 60 per cent to the total trade. The increasing demand for natural products as food additives makes turmeric an ideal produce as a food colorant. Additionally, anti-cancer and antiviral activities of turmeric may also increase its demand from pharma industry.

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Percentage share of Turmeric in Global Production

![Percentage share of Turmeric in Global Production](chart)

Source: Spice Board, GOI

India Scenario:

There is an increase from 162.9 thousand ha in 2001-02 to 177.5 thousand ha in 2005-06. Similarly, the production has increased from 552.3 thousand tons in 2001-02 to 846.7 thousand tons in 2005-06.

Table: Area, production and productivity of turmeric in India

<table>
<thead>
<tr>
<th>Year</th>
<th>Area (000'ha)</th>
<th>Production (000'tons)</th>
<th>Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001-02</td>
<td>162.9</td>
<td>552.3</td>
<td>3.3</td>
</tr>
<tr>
<td>2002-03</td>
<td>149.8</td>
<td>526.4</td>
<td>3.5</td>
</tr>
<tr>
<td>2003-04</td>
<td>150.7</td>
<td>567.2</td>
<td>3.7</td>
</tr>
<tr>
<td>2004-05</td>
<td>158.4</td>
<td>718.1</td>
<td>4.5</td>
</tr>
<tr>
<td>2005-06</td>
<td>177.5</td>
<td>846.7</td>
<td>4.7</td>
</tr>
</tbody>
</table>


Andhra Pradesh continued to hold majority of area under turmeric with a share of about 34%. Meanwhile, area under turmeric in the state of Orissa is also significant although level of yield is anticipated to be lower in the state. Tamil Nadu enjoys higher yield of turmeric compared with most of other states. Although, the state has witnessed sharp decline in total production due to shifting of area towards other crops such as sugarcane on account of poor price realization. Both Andhra Pradesh and Tamil Nadu constitute major share in India’s total production. Major turmeric growing districts are: Karimnagar, Nizamabad, Guntur and Kadapa in Andhra Pradesh, Erode, Coimbatore, Dharmapuri and Salam in Tamil Nadu; Belgium and Chamrajnagar in Karnataka; Allepey in Kerala, Sangli and Nanded in Maharashtra.

Major turmeric growing districts across states:

- **Andhra Pradesh**: Karimnagar (21.9%), Nizamabad (18.6%), Guntur–Duggirala (8%), and Kadapa (5%)
- **Tamil Nadu**: Erode, Coimbatore, Dharmapuri and Salem
- **Karnataka**: Belgaum and Chamrajnagar
- **Kerala**: Allepey
- **Orissa**: Phulbani
- **Maharastra**: Sangli and Nanded

Distribution of produce from primary to terminal market

Turmeric grown in southern states like Tamil Nadu, Karnataka and Andhra Pradesh find major markets in states like Maharashtra, M.P, U.P, and further goes to Delhi, Punjab and Haryana.

Turmeric grown in Gujarat is distributed in nearby markets of Rajasthan.

Turmeric from Orissa and West Bengal finds markets in Chattisgarh, Jharkhand and Bihar etc.

Turmeric from Sikkim is distributed in North Eastern states.

Orissa Scenario

Kandhamal is a centrally located district of Orissa, India. The main occupation of the people is Agriculture and
collection of minor forest products since there are no other avenues of income. Successful agriculture is mainly dependent on rainfall; hardly 10% irrigation facilities were created. Annual rainfall is about 1587 mm, which is fairly supportive for a Kharif Crop. The erratic nature of rainfall sometimes creates problems of drought and causes crop failure. Turmeric is the main cash crop of the tribal farmers. Turmeric is grown here from time immemorial. It is their chief source of income, as they export it in large quantities bartering it for grain and salt to the drivers of pack-bullocks, who come from Ganjam, Sambalpur, Cuttack, Puri and other Tributary parts.

The forest of Kandhamal is pregnant with wild germplasm of turmeric that needs detailed study. In fact Kandhamal is proud to provide the germplasm namely T. Sundar from which Roma and Surama varieties of turmeric, with high curcumin, have been developed by H.A.R.S OUAT Pottangi and released for cultivation in the year 1988 and 1989. In a recent study, N.B.R.I collected 32 specimens of wild turmeric from Kandhamal district for further research. All the 3 species of Curcuma namely Curcuma longa, \(/\text{Curcuma auromatrica} )/e/ and \(/\text{Curcuma amda} )/e/ are found in the forests. Curcuma aromatica is the predominant genotype. To date, the land less tribals collect turmeric from the forest to sell.

Kandhamal turmeric:

The agroclimatic conditions prevailing in the district are best suitable for growth and production of turmeric. It thrives in well-drained sandy loam soils. Such types of soil are available in an area of 1.43 lakh ha. Of uplands in the district where turmeric is being grown in an area of about 14,000 ha. With an annual production of about 28,900 MT. The local variety of turmeric is bold with a characteristic aroma. The storing quality is excellent; it can be stored for more than 2 years. The color is reddish yellow. The analysis report on this local turmeric given by Spices Board of India's laboratory indicates that it contains: Acid insoluble ash (% by wt) - 0.48; Chromate Test (Qualitative) - Negative; Curcumin (% by wt) - 3.13; Heavy metal-(lead ppm) - 2.10; Moisture (% by wt) - 7.60; Oleoresin EDC extractable (by wt) - 11.28; Starch (% by wt) - 48.10; Total ash (% by wt) - 8.34; and Volatile oil (% V/W) - 5.67.

Agronomic practices:

Agriculture in the region is mainly dependent on rainfall and as such monocropping is taken up. Turmeric is grown in the Kharif season in uplands. Following traditional wisdom the tribals do not cultivate turmeric in the same plot every year. If in one year turmeric is taken up in a specific plot, then in the following year, cereals or oil seeds are cultivated in that plot. As a result, to avoid soil born diseases like rhizome rot or wilt, crop rotation is practiced.

Marketing channels operating at Kandhamal:

The following agencies are actively engaged in marketing of turmeric in Kandhamal.

KASAM:

A special project was implemented to develop turmeric and ginger in the district. The project was implemented through a formation of 61 Spices Development Societies (SDS). At present there are more than 12000 tribal farmers who are primary members. Turmeric with high curcumin and ginger with low fiber content were introduced to improve the quality of the produce. Unfortunately, the increase of production could not provide remunerative prices to the farmers. Therefore KASAM (Kandhamal Apex Spices Association for Marketing) was born in 1998 with all the 61 SDS. The objective was to promote organic spices production, quality and value addition and marketing. KASAM is apex bodies that has taken up organic spices marketing and export from the year 2000. The profit accrued from business is ploughed back to the members for their economic development.

Certification and marketing of organic products:

Kandhamal is a hidden treasure of organic spices. KASAM has taken up systematic steps for certification of the area. In each SDS record, like land records, input record and production records for each individual member is maintained every year. KASAM has requested that Skal of Holland certifies the spice area. The certification began from 2000. The organic inspector of Skal visits the field and issues the organic certificate. Now KASAM has an organic certificate for the year 2002 from Skal.

With this certificate, KASAM can export Organic Spices from the year 2000 to countries such as USA, UK, Netherlands, Egypt, and South Africa, Bangladesh and Sri Lanka., through exporters and the active guidance of the Spices Board of India.

Apart from export, KASAM has taken steps to provide organic turmeric powder to domestic customers in consumer packs in collaboration with OMFED, Orissa. Apart from turmeric, organic ginger slices, powder, mustard and tamarind are also sold by KASAM. Organic farming is a new concept to the domestic consumers. Hopefully and gradually the market for organic spices will increase in the country.

Export Potential

A. Domestic strengths for exporting turmeric

Domestic strengths for exporting turmeric are given below:

- India is a largest producer of turmeric in the world.
- India has bred improved and high yielding cultivars of turmeric.
- India is in dominant position as far as production; trade etc. of turmeric is concerned.
- There is a strong research support for cultivation of turmeric on scientific lines, as Indian Institute of Spices Research is located in Callicut and also State Agricultural Universities in various states.

More than 80% of turmeric is cultivated in Andhra Pradesh and Tamil Nadu states.
APEDA has sanctioned an Agri Export Zone for turmeric in Orissa state to enhance export of turmeric from the state.

**B. Export**

India has monopoly in turmeric trade at world level. Although India is the largest producer of turmeric in the world (846700 tons) but it exported only 6% of the total production. India, exported 51500 tons of turmeric during 2006-07. This is substantial compared to 37,644 tons during 2003-04.

### Export of Turmeric from India

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantity in tons</th>
<th>Values (lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-04</td>
<td>37044.3</td>
<td>13111.7</td>
</tr>
<tr>
<td>2004-05</td>
<td>43096.6</td>
<td>15625.0</td>
</tr>
<tr>
<td>2005-06</td>
<td>46404.9</td>
<td>15286.0</td>
</tr>
<tr>
<td>2006-07</td>
<td>51500.0</td>
<td>16480.0</td>
</tr>
</tbody>
</table>

Kandhamal stands to be the only state sponsored organized marketing channel operating under the ambience of the co-operative society. Therefore it is suggested that organized opening for marketing channels may provide a remunerative price to the producers which in turn can increase the production and productivity of turmeric in Kandhamal.

The creation of a marketing chain in providing the facility for marketing the raw turmeric and turmeric products increase the employment potential and help in generation of additional income which will ultimately change the standard of living of the tribals of Kandhamal. This may be a mainstay of the tribal development.

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Conclusion

It is found from the above analysis that Turmeric has a great export potential and it can be a perennial source of foreign exchange hunt. But we have not been able to exploit this scope on account of the unorganized marketing practices followed in Kandhamal, Orissa.