



# **An Assessment of the Export Competitiveness of the Banana, Mango and Mango Pulp Sectors in the State of Tamil Nadu**

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## **Executive Summary**

India is the world's leading producer of bananas and mangoes, two of the world's most widely-traded horticultural products. India's national production of these two fruits accounts for 24% and 40% of world production, respectively. India's position as a global exporter of these two products, however, contrasts sharply with its production share. In the global fresh mango trade, India represents only 5% of world exports. In terms of fresh bananas, India accounts for less than 1% of world exports. The State of Tamil Nadu has expressed a particular interest in expanding exports of mangoes, bananas and mango pulp, and invited the World Bank to assess the competitiveness of Tamil Nadu's production in light of world market requirements.

This project utilized a three-step process of evaluation. First, the team assessed the current state of the fresh banana, fresh mango, and processed mango pulp sectors in Tamil Nadu State. We then identified areas for improvement (gap analysis) in order to enhance prospects for export success. We then outlined a series of recommendations that would, in the case of processed mango and fresh mango, facilitate export development. In the case of fresh bananas, near-term prospects for a sustainable export activity are negligible. With bananas, however, we believe that the Tamil Nadu banana industry needs to consider major changes in its cultural and post-harvest practices in order to remain competitive within the domestic Indian market, once India's WTO membership leads to market access for such highly competitive banana producing countries as the Philippines and Ecuador. Recommendations for the fresh banana sector are thus focused on maintaining competitive standing in its traditional markets, rather than on enhancing its export competitiveness.

### **Fresh Mangoes**

Considerable opportunities exist to improve value-chain revenues through increased export movement to such markets as Japan, Korea, the European Union, Canada and the United States. This will require initiatives in the areas of plant protection and food safety, market intelligence, handling and transportation infrastructure, and exporter association development. Principal recommendations in the report include:

1. Market studies should be conducted to confirm the desirability of the dessert characteristics of the principal Tamil Nadu varieties in the export markets of greatest interest.
2. Market access requests should be filed with the NPPO's of Japan, Korea and the United States.
3. Governmental agencies and sectoral associations should work together to facilitate GAP and HACCP certification.

4. There is a need for upgraded infrastructure within major production areas across the State, especially as concerns modern refrigerated cold storage and packing facilities.
5. There is a parallel requirement for cold storage capacity both at the Chennai airport, and at the ports of Tuticorin and Chennai.
6. Access to services offered by APEDA and other government agencies should be made easier, and agencies should communicate service availability to growers and exporters more effectively.
7. Additional services for market intelligence are needed.
8. There is also a need for product promotion overseas on a consistent and on-going basis.
9. Provisions are needed for the movement of packed product from farm to port of exit in refrigerated conveyances.
10. There is an urgent need for well-supported exporter associations within the State
11. Consideration should also be given to the establishment of some independent entity which can provide guidance across the sector on demand and price performance across the range of export markets, and aid in the formulation of rational price optimization strategies on the part of shippers and exporters.

### **Mango Pulp**

After twenty years of rapid growth and export success, the Krishnagiri mango export cluster is now faced with a series of challenges in the global marketplace. Emphasis needs to be placed on modifying existing infrastructure to conform to the requirements of high-end users, on developing a premium position in the markets of interest on the basis of the service features these markets require, on entering new markets which offer higher returns, and on developing a more unified and collaborative basis for relations both with the growers of their raw product, and with the exporters of their finished product. Steps required to overcome these challenges include the following

1. Government, industry and financial institutions must attack the problem of conversion from retort to aseptic processing technology.
2. Any progress toward increasing the cluster's access to additional supplies of Alfonso would help both toward improving immediate revenues, and toward building an array of market services which would enhance the revenue potential for Totapuri puree.

3. Adequate input testing facilities need to be established, together with regular sequences of testing for chemical and microbiological contamination.
4. Government and industry should develop new models of cooperation among growers, processors and exporters to meet market demands for a more stable price environment
5. The system for generating and monitoring crop estimates needs to be improved.
6. All processors need to complete the steps for HACCP certification. Plans should be put in place to broach the next rung on the private standards ladder, either ISO or BRC, depending on the evaluation of market benefits.
7. Krishnagiri producers and exporters should reconsider their reluctance to maintain stock positions in Rotterdam in order to provide just-in-time deliveries by EU importers to their retail customers.
8. The industry and the government need to learn more about the markets of Japan and South Korea.
9. A multi-faceted approach to differentiation of Krishnagiri mango puree in global markets should be developed.
10. The industry should undertake, and the government should assist in, the development of additional products for processing, such as pears, apples, pomegranate, guava and passion fruit.

### **Fresh Bananas**

In the case of Tamil Nadu bananas, there appears to be virtually no potential for short-term export development on an economically viable basis, due to the cultural and post-harvest practices which damage the fruit to such an extent that it would be unsaleable in most importing countries. Instead, recommendations focus on strengthening the industry's practices and quality consciousness as a means of deflecting import competition from the Philippines and other commercial origins, assuming WTO accession leads to the same degree of import liberalization as has been seen in the apple trade. They include the following:

1. Current crop rotation practices should be re-evaluated in light of commercial production practices in Latin America and Asia.
2. Trials should be initiated to verify the costs and benefits of annual or seasonal cropping.

3. If seasonal cropping is determined to be essential, then consideration should be given to increasing plant densities to reduce the impact of production losses.
4. There is urgent need for clean, reliable planting material.
5. The current practice of poly-clonal inter-planting needs to be compared with the alternative practice of planting segregated plots of each variety.
6. Alternatives to the current practice of flood irrigation should be developed as an urgent priority.
7. Propping practices should be modified to minimize pole damage while still assuring stem protection.
8. Consideration should be given to the introduction of stem bagging to protect the bananas from insect and environmental damage.
9. Harvesting practices should be reviewed with an eye to reducing the amount of bruising and scarring which occur during the process.
10. The Tamil Nadu banana sector should begin to prepare for the conversion from stems to corrugated boxes for post-harvest handling and distribution.
11. The conversion to boxing will require a parallel transformation of product from stems to hands and clusters, triggering in turn a requirement for packing facilities with running water, wash tanks, packing stations and holding areas.

