

Consolidation of Food Security in India



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An overview of Indian Agriculture (Production side)

Comparative advantages

- ❑ Second largest arable land in the world
- ❑ Diverse agro-climatic zones across the country
- ❑ Potential to cultivate a vast range of agricultural products
- ❑ Large marketable surpluses and abundant raw material for processing
- ❑ Vast pool of skilled manpower in research and extension



- ❖ These advantages being leveraged, for India to be a leading food supplier to the world.

Indian food Industry



- ❖ Ranks fifth in terms of production consumption and export
- ❖ Food production in India to double in the next ten years.
- ❖ India will add more than 500 million people in the 40 years.
- ❖ Industry size US \$ 70 billion
- ❖ Food is one of the highest economic multipliers among Indian industries as food industry directly or indirectly triggers growth in other industries such as transport, refrigeration, pesticides, fertilizers etc.

Level of processing in food processing sector

Item	Processing in organized sector (%)	Processing in un organized sector (%)	Total processing (%)
Fruits and vegetables	1.2	0.5	1.8
Dairy products	15	22	37
meat	21	-	21
poultry	6	-	6
Marine fisheries	1.7	9	10.7
Shrimp	0.4	1	1.4

International Food Policy Research Institute (IFPRI)

Survey Details

- ☞ 840 million people – food insecure**
- ☞ 185 million children - malnourished**
- ☞ 1.1 billion people – under absolute poverty**
- ☞ More than 75 % of poor are rural people obtaining livelihood from farming activities**

Domestic markets scenario

Infrastructure for marketing of perishables

- ❖ **Primary grading/ collection centers** - non existent
 - ❖ **Warehousing and cold storage** - inadequate
 - ❖ **Cold chain** - non existent
 - ❖ **Quality certification system** - non existent
 - ❖ **Transportation for perishables** - non existent
 - ❖ **Rural markets** - complete lack of infrastructure
 - ❖ **Wholesale markets** - in government control, lack modern facilities
 - ❖ **Private / direct markets** - not permitted
- Post harvest losses: 25 to 30 % in perishables**

Ministry of food processing Industries Government of India

Policy Initiatives

- Food safety and quality important for all stake holders
 - Farmers processors retailers Consumers
- Implementation of Food Safety and Standards Act 2006
- Bring together related ministries for effective implementation

Ministry of food processing Industries Government of India

- Programme for Capacity building through HACCP or ISO 22000 for identified food processing units (10000)
- Up gradation of Food safety laboratories to best practice level
- GAP as thrust area for improving hygiene traceability and food safety
- Modernization of abattoirs
- Awareness programmes on food safety and quality

Consolidation of Food Security in South India

Programme involved three Universities in South India, with McGill University, Canada and CIDA with selected NGO's in South India

1. Tamil Nadu Agricultural University, Coimbatore
2. University of Agricultural Sciences, Dharward.
3. University of Agricultural Sciences, Bangalore.
4. DHAN Foundation (NGO)
5. MYRADA (NGO)

Consolidation of Food Security in South India

- To strengthen South India's capacity for development in sustainable post harvest technology and food processing
- Promoting rural development and employment opportunities
- Targeted to rural woman
- Food security



Woman SHG Empowerment

- Made the rural women self sustaining
- Women folk meet their day-to day expenses out of the earnings they get from the processing activities
- Empowered the rural women and boost up the micro level development of the economy
- This concept can be popularized for wider reach and development of rural economy.

SHG Training impact

- The income, employment opportunities and socio economic status of the rural women have improved appreciably
- Ranged from 15-40 per cent
- They are all empowered economically and socially and well placed in the rural communities.

Collapsible Crates



Collapsible Crates

- Collapsible crates of Canadian design
- Greater response from the farmers, entrepreneurs and even traders in South Indian markets.
- More number of crates has been purchased by the farmers and progressive entrepreneurs.
- Commodities (**flowers and tomato**) transported by crates fetched premium price in the markets and the extent of **reduction of post harvest losses** was to the tune of **10-15 per cent**.

Polyhouse drier for chillies



Solar tunnel dryer for chillies- Impact



- ❖ Capacity : 700 kg per batch
- ❖ Cost : 1 lakh
- ❖ Hygienic environment
- ❖ Saving in time 50 – 60 %
- ❖ Enhanced price – 15 %
- ❖ Labour saving

Collaboration with MYRADA

NGO : Watershed Development

- ☞ Chenda Medu Watershed
- ☞ Post Harvest technology of vegetables
- ☞ Cleaning , Grading & Packaging



Stored Grain Pest Management

- 20 Entomologists from KVK's trained
 - ∞ Distribution of Stored product pest management kits : KVK scientists
- Periodical training programmes to the farmers & members of SHG's
- Awareness campaign
- Distribution of Pest Traps



Food Processing Business Incubator

Major Components of CIDA project

- Multi product Research, Teaching and Production facility
 - Equipped with state of the art food processing equipments
 - 4500 Sq. ft
 - 50 litres / hr processing capacity
 - Project cost 150 lakhs
- ❧ To carryout pilot scale research projects
 - ❧ To perfect new design ideas
 - ❧ To demonstrate latest food processing technology and production techniques

Objectives

- ❧ Students – Hands on training in Food Process Engineering
- ❧ Research tool for R&D and knowledge transfer facilities
- ❧ PG students & faculty researchers
- ❧ Imparting training to the farmers, SHG's, NGO's and Unemployed youth
- ❧ Launching pad for first generation entrepreneurs





Bakery unit





Food Products

- ❧ RTS, beverages & Squash
- ❧ Jam, Jelly, Marmalade, Candy & Preserve
- ❧ Sugarcane juice
- ❧ Concentrates, Sauce & ketchup
- ❧ Powders : milk & fruits
- ❧ Canned fruits, vegetables & Mushroom
- ❧ Pickles & masala powders

Incubator facilities to any Progressive Entrepreneur

- Contract usage for one year
- Rs 5000/- Non refundable membership fees
- Raw material & labour to be provided by the entrepreneur
- Charges for the usage of plant & machineries

Food processing pilot plant -Success stories



- M/s. Subramaniam & Co., Coimbatore
- Canning of Fruit preserve (panchamirtham)
- Easy open end cans.
- Exported to Malaysia



Thank you for your attention



Discussion

The background is a solid teal color. In the lower half, there is a faint, semi-transparent graphic of two hands shaking, symbolizing agreement or discussion.