

Role and Performance of Cold Storages in Indian Agriculture



Management

KEYWORDS : Cold Storage, Indian Agriculture, Fruits, Vegetables and Perishable Commodities

B. B. Gundewadi

Asso. Prof. , H. O. D. Commerce & Management, Ganpatrao Arwade College of Commerce, Rajnemi Campus, North Shivajinagar, Sangli - (Maharashtra) 416416.

I) Introduction

Cold storage industry is primarily based on agricultural products. It is a mechanism to support the rural areas and to distribute the production to the consuming populace place. It strengthens the producing area by storing and cooling the production so that the product is retained for a longer period of time and product value is also preserved.

Cold storage industry occupies a significant role in the agricultural economy of the country. Whereas we have to produce more to feed our growing population it is equal importance to see that produced potatoes, fruits and vegetables, milk products, eggs, meat, marine products are preserved properly to avoid wastage and to get fair prices. India is having a unique geographical position and a wide range of soil, thus we are producing variety of fruits and vegetables like apples, grapes, oranges, potatoes, chilies, ginger etc. We also produce marine products in large quantities due to large coastal areas. The present production level of fruits and vegetables is more than 149 million MT. keeping in view the growth rate of population and demand, the production of perishable commodities is increasing every year. The cold storage facilities are the prime infrastructural component for such perishable commodities.

Cold storage is a special kind of room, the temperature of which is kept very low with the help of air cooling machines and precision instruments. There are six types of cold storages used in India for storing agricultural products namely - Indoor Storage, Outdoor Storage, Refrigerator Storage, Outdoor Sheds, Basement storage room and underground storage room. Underground storage room is a special kind of cold storage at Haripur and Sangliwadi in Maharashtra, which is used for Turmeric Commodity only. This type of cold storages increase the quality and life of the Turmeric.

II) Objectives

The main objectives of my present study is to understand the role and importance of cold storages in India to develop Indian Agriculture for marketing purpose of the Perishable commodities. Following are the other objectives of cold storages study,

1. To study the growth of cold storages in India
2. To examine the importance of cold storages
3. To suggest the policy measures

III) Data analysis and Results

Total no of cold storages in India is 6000. With the total installed capacity of 25.5million MT. Uttar Pradesh ,Maharashtra, West Bengal, Punjab and Gujarat account for more than 60% cold storage capacity followed by Andhra Pradesh, Haryana and Madhya Pradesh. Shown on Table No 1 and Table No. 3.

**Table No – 1
Number of Cold Storages in India**

Year	No. of Cold Storages	Installed Capacity in '000MT'
1995	83	43
1960	359	305
1965	600	682
1970	1218	1638
1975	1615	1994

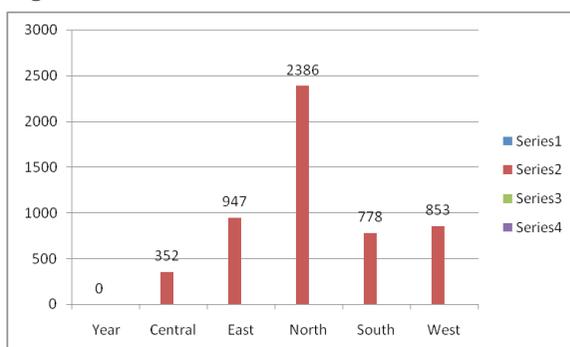
1979	2266	3348
1986	2607	5402
2004	4748	19552
2006	5101	21694
2007	5316	23334
2008	6000	25500

The growth of the cold storages in India from 1955 to 2008 has not uniform, Region wise and State wise also. Region wise no. of cold stores in India are – Central Region -352 (6%), South Region-778 (7%), East Region-947 (33%), North Region -2386 (47%) and West Region -853 (7%) at the end of the 2007. Shown on Table No 2

**Table No-2
Region wise No. of Cold Stores in India**

Year	Central	East	North	South	West
Base Year 2007	352	947	2386	778	853
%	6%	33%	47%	7%	7%

**Chart: 1
Region wise No. of Cold Stores in India**



The Govt. of India has classified region wise cold storages in India. There are five regions namely - Central, East, North, South & West region. Region wise growth of cold storages in India has not uniform, shown on Chart 1, through graphical chart.

**Table No 3
No. of Cold Storages and It's Capacity in Selected States (as on 31/12/2009.)**

Sr No	Name of the State	Number of Cold storages	Percentage (%)	Capacity (In M.T.)
1	Uttar Pradesh	1589	29.53	10118000
2	Maharashtra	466	8.66	546748
3	West Bengal	463	8.60	5682000
4	Punjab	422	7.84	1345193
5	Gujarat	398	7.40	1267304
6	Andhra Pradesh	290	5.40	900606
7	Bihar	246	4.57	1147041
8	Hariyana	244	4.53	393121
9	Madhya Pradesh	197	3.66	808052
10	Others	1066	19.81	2242587
	Total	5381	100	24450652

Table No 4
No. of Cold Storages in Maharashtra (Selected Districts)

Sr No	Name of the District	Number of Cold storages	Product Stored
1	Thana	75	Dairy / Marine
2	Mumbai	71	Multipurpose
3	Nashik	63	Grapes & Vegetables
4	Sangli	37	Grapes and Raisins
5	Pune	28	Multipurpose
6	Satara	04	Multipurpose
7	Others	188	Multipurpose
	Total	466	Multipurpose

The above tables reveal that the no of cold storages in India and Maharashtra in selected areas. Among the states Uttar Pradesh state having more than 1500 cold storages with the capacity of 1011800Mt, remain other states have less than 500 Cold storages. Within the Maharashtra the districts like thane, Mumbai and Nasik having the highest no of cold storages with 75 and 71 respectively.

IV) Role of Cold Storages:

With the commercialization farming green revolution white revolution, contract farming and L.P.G. changes also takes place in the habits of the consumers, progressive demand for 'Ready to serve' or 'Fast food' etc., with its marketing of farm products has become highly complex. This is much more so in the case of fresh fruits and vegetables for marketing. Even though there are some drawbacks of cold storages like Electricity supply, Licensing process, Regulatory measures, sufficient lands, adequate capital and Inspection of units. The importance of cold storage of fruits and vegetables has to achieve following objectives.

1. Seasonal Production:

The production of fruits and vegetables is highly located in favoured situations of soil and climate. While the demand for fresh fruits and vegetable continuous almost throughout the year, their supplies are only seasonal. For e.g. apples grown in Jammu and Kashmir and Himachal Pradesh find markets all over the county. Therefore, cold storages have more importance in storing and supplying the seasonal fruits and vegetables.

2. Spoilage:

A crucial problem faced in the case of fruits and vegetables is that of the huge enormous losses that occur on account of spoilage. The loss of spoilage on different stages on marketing estimated between 20% to 33% of the total production. There is an urgent need to minimize the present spoilage loss through cold storages.

3. Losses in Transit:

Most of the fruits and vegetables are of extremely perishable nature and cannot be kept long under ordinary conditions of storage. Refrigerated trucks and air-cooled wagons which will help in minimizing losses is transport.

4. Better distribution and fair prices:

The prices paid by the consumer to the producer is very low ranging from 40%-60% one of the principal reasons for this is prevalence of various malpractices in the fruits and vegetables in terminal markets like Mumbai, Chennai, Delhi, Calcutta etc. These markets receive large quantities of fresh fruits from outside the state. The producer never knows at what price his product was in the nearest cold stores and get fair prices with better distribution.

5. Stabilising Market Prices:

Besides the role of stabilizing market prices and also distributing both on demand basis and time basis. The farmers get opportunity of producing cash crops to get fair prices at the same time, the consumers get the supply of perishable fruits and vegetables with minimum prices i.e. cold storages stabilizing market prices of fruits and vegetables.

6. Maintain Quality

Cold storages will help to maintain the quality of product for some period of time. It gives a chance to protect the quality of perishable goods for long time whenever it needed to store.

7. Wastage Reduction

The cold storage system will greatly helps in reducing the wastage of perishable goods. Generally the perishable goods wastage is more due its nature of short life and lack of storing facilities. Therefore the cold storage have a greater role in reduction of wastage.

V) Conclusion:-

This paper has evaluated the role and performance of cold storages in India, state wise and district wise in Maharashtra. The data analysis of the paper reveal that the cold storage industry plays a vital role in the economy of the country and makes available a very large quantity of food products, fruits and vegetables for the people at all seasons which otherwise would not have been available. It is matter of grave concern that cold storages have not received adequate support system from the govt. Govt. also has not able to show new directions to the cold storage industry. At present the cold storage units in India are facing a keen and unhealthy competition; some of them are struggling for existence, while in other part of country there has still no adequate cold storage facilities.

VI) Suggestions:

1. Participation of financial institutions for adequate capital
2. Changes in transport system
3. Changes in insurance clauses
4. Provide more concessions for cold storage
5. Participation of co-operatives in cold storage industry
6. Providing sufficient electricity supply
7. Arrange proper inspection on cold storage units
8. Establishment of mother industry for research and development of cold storage Industries

REFERENCE

1. Dr. V.B. Kodag- Recent Trends in Commerce and Management, ABS Publication- Varanasi 2013 | 2. Preeti Singh - Problems and prospects of cold storage industry in India, Himalaya Publishing, New Delhi | 3. Research paper on storage guidelines for fruits and vegetables. By-Cornell Cooperative extension, Chemung County | 4. Project profile for modern cold storage .Kerala State Industrial Development Corporation Ltd. | 5. Website.Apeda.com | 6. Cold chain Development in India: Modernization of the infrastructure of cold storage of perishables: Arivind Surange