"THE STATUS OF SALT INDUSTRY IN INDIA"

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ABSTRACT

The art of salt making in India has been carried on, from the time immemorial. In India manufacturing of salt along with sea coast in Bengal, Bombay, Madras and the Runn of Kutchch, flourished as cottage industry for centuries. In his "Early History of Bengal" Mr. F.H. Manhan gives a passage '*Arthasastra'*- a book dealing with the history of Mauryan period (300 B.C), which says that salt manufacture was even that distance date supervised by a state official designated '*lavandhyaksa'*. During the British regime the indigenous salt manufacturing in certain region of the country was so much suppressed that the local Salt Producer lost their lively hood due to closure of their self employed units, on the other hand salt was imported on the pretext that Indian Salt is black. This challenge was accepted by Indians and a best salt works was designed not only for human consumption but also for industrial use in 1924, in Gujarat at Mithapur. Since than Indian Salt Industry not lagged behind in production of salt. Salt Production touched two millions tons by 1947. Now, salt production of India is 18 to 20 millions tons per annum and India is the third largest salt manufacturer of the world; and is the biggest bromine manufacturer in Asia. 'Indian salt Industry' is going global by adopting modernization / mechanization. About 3.5 millions tons salt is up graded in washing plants to the purity of 99.5% on dry basis; this salt is exported and consumed by local Chlor Alkali Industry. Now Mechanization and Modernization of major salt works is under full progress. The salt consumption for edible purpose is 6 million tons per annum. The capacity of iodization plants is 16 million tons with 42 refineries and two giant vacuum salt plants. Indian salt industry is ready to meet the growing demand of iodized salt. India, particularly Gujarat has very long coast line with favorable climatic conditions; has potential to increase salt production in many folds and to export about 10 millions tons salt per annum. Recently Govt. allotted about 40,000 Hectares land for development of salt works and salt bye-product industry mainly for export. The salt based industry mainly caustic soda is growing at the rate about 8%. Indian salt industry is fully geared up to meet the growing demand of Chemical Industry, Edible and Export.

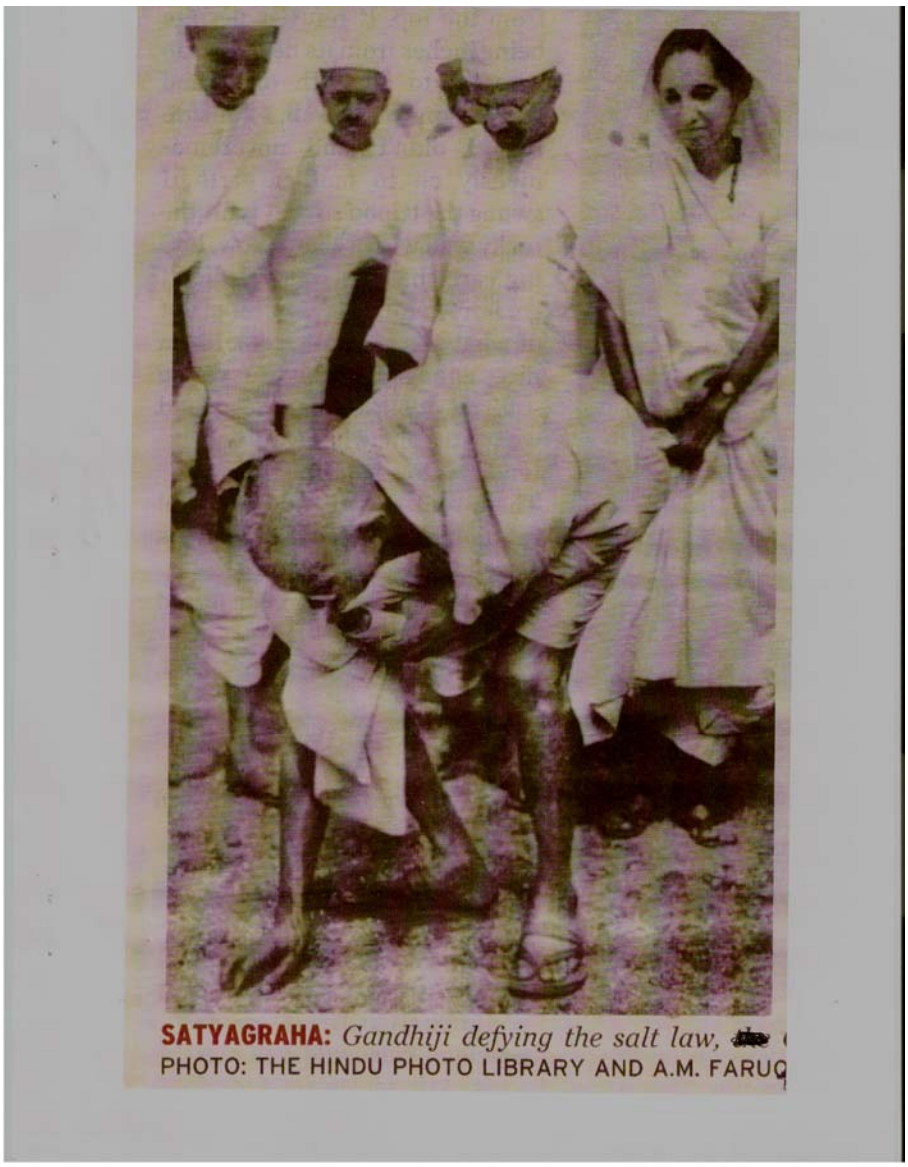
INTRODUCTION

The history of Salt production can be traced back to the don of human civilization. In ancient time when seawater evaporated in pits, white layer was formed and it was found tasty and people started consuming it. The white layer was nothing but 'Salt'. Like this it was the beginning of civilization as well it was the beginning of salt production. This has a long and intriguing history. It has shaped civilizations from the very beginning, and story is a glittering, often surprising part of the history of mankind. A substance so valuable it served as currency, influences the establishment of trade routes and cities, provoked and financed wars, secured empires and inspired revolutions. As the time advanced uses of salt increased and the method producing salt also become a very important process. In modern times salt has about 14000 known uses from food to industry to de-icing. Presently, about 120 nations are actively engaged in salt production.

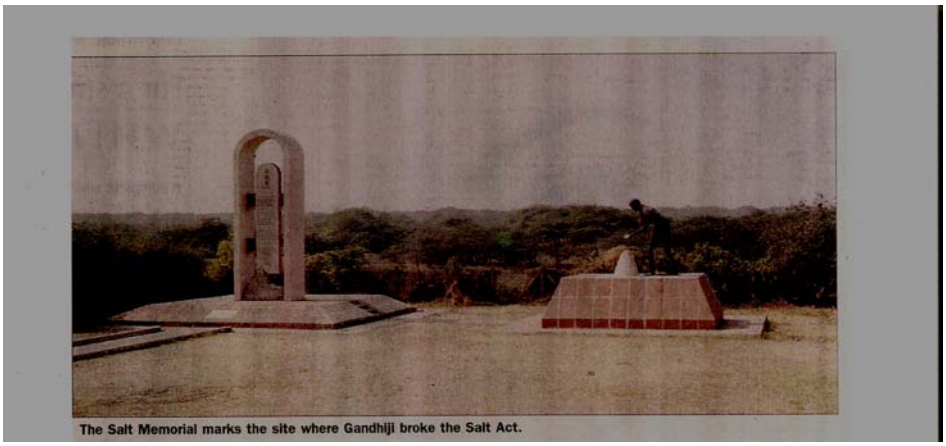
Method of brine lifting - using pair of bullocks.

salt harvesting

The art of salt making in India has been carried on from the time immemorial. In India manufacturing of salt along with sea coast in Bengal, Bombay, Madras and the Rann of Kutchch, flourished as cottage industry for centuries. In his “Early History of Bengal” Mr. F.H. Manhan gives a passage ‘*Arthasastra’*- a book dealing with the history of Mauryan period (300 B.C), which says that salt manufacture was even at that distance date supervised by a state official designated ‘*lavandhyaksa’*. ‘Lavan’ means salt and ‘Adhyaksa’ means head. That means head of the salt. At that time salt business was carried on under a system of licenses granted on the payment of fixed fees or part of the part of the out put. In India salt played a very important role to give independence to our nation from British Kingdom. Dandi march is famous in the history, Mr. MK Gandhi used salt as powerful weapon to get independence. Mr. Gandhi and his 78 companions set out from ‘*Sabarmati Ashram’*.Ahmedabad, to walk 386 KM to Dandi. On April 6, 1930 Gandhiji picked up a fistful of salt and declared *‘With this, I am weakening the foundation of the British Empire’.* This created panic and freedom struggle gathered momentum.



SATYAGRAHA: *Gandhiji defying the salt law,*
PHOTO: THE HINDU PHOTO LIBRARY AND A.M. FARUQ



The Memorial marks the site where Gandhiji broke the Salt Act.

During the British regime the indigenous salt manufacturing in certain region of the country was so much suppressed that the local Salt Producer lost their lively hood due to closure of their self employed units, on the other hand salt was imported on the pretext that Indian Salt is black. This challenge was accepted by Indians and a best salt works was designed not only for human consumption but also for industrial use in 1924 at Tata Chemicals, Mithapur. Since than, Indian Salt Industry not lagged behind in production of salt. Salt Production touched about two millions tons by 1947.

SALT PRODUCTION IN THE COUNTRY INCLUDING UN-RECOGNISED SECTOR FROM 1947 TO 2005

('000 MT)

YEAR	PRODUCTION	YEAR	PRODUCTION
1947	1929.8	1977	5328.5
1948	2374.8	1978	6693.5
1949	2075.8	1979	7037.0
1950	2661.9	1980	8007.4
1951	2776.1	1981	8923.2
1952	2868.9	1982	7308.4
1953	3213.2	1983	7004.8
1954	2758.6	1984	7652.9
1955	3025.2	1985	9874.9
1956	3317.6	1986	10111.5
1957	3670.1	1987	9899.5
1958	4195.7	1988	8311.5
1959	3177.9	1989	9870.3
1960	3435.5	1990	12398.0
1961	3480.6	1991	12394.6
1962	3886.1	1992	13552.8
1963	3544.1	1993	13727.8
1964	4646.8	1994	12344.2
1965	4119.3	1995	12544.0
1966	4521.5	1996	14466.1
1967	4488.2	1997	14251.1
1968	5043.7	1998	11964.4
1969	5173.4	1999	14452.7
1970	5588.2	2000	15651.3
1971	5426.1	2001	14284.0
1972	6517.1	2002	17879.2
1973	6860.2	2003	14882.4
1974	5912.9	2004	14761.2
1975	5842.9	2005	19923.9
1976	4076.4	2006	18850.0

Present Status-

"Salt" is a central subject in the Constitution of India and appears as Item No.58 of the Union list of the 7th Schedule. The Salt dept. headed by The Salt Commissioner of India. The Salt Department is under the Ministry of Commence and Industry. The duty on salt was abolished from 1st April 1947. For administrative purposes, the 5 Regions viz. Gujarat Region, Chennai Region, Mumbai Region, Kolkata Region, Rajasthan Region, implement the policies of the Salt Department. There are salt dept. laboratories in all regions to help salt manufacturers to maintain quality of salt. At state level, the development of industry and welfare of salt workers is being looked after by Industry Commissioner ate and labour dept.

The Indian Salt Manufacturers Association is an apex body of Indian salt manufacturers. There is "Central Salt and Marine Chemicals research Institute" at Bhavnagar in Gujarat. Their main function is to help salt industry through their research work. This institute was established in 1956. In addition to R & D work the institute provides training courses for salt manufacturers for salt production & quality.

STATISTICS AT GLANCE
(For area under salt production in India)

S.No.			2003	2004	2005
1	**Area held**				
	Recognised Units	(Acres)	505926	510466	506892
		(Hectares)	(204748)	(206580)	(205129)
	Un-Recognised units	(Acres)	39998	41792	31856
		(Hectares)	(16187)	(16913)	(12891)
	Total Area held	**(Acres):**	**545924**	**552258**	**538748**
		(Hectares)	**(220935)**	**(223493)**	**(218020)**
2	**Area under Cultivation**				
	Recognised units	(Acres)	272010	280118	275244
		(Hectares)	(110082)	(113361)	(111386)
	Un-Recognised units	(Acres)	39998	41792	31856
		(Hectares)	(16187)	(16913)	(12891)
	Total Area under Cultivation :	**(Acres)**	**312008**	**321910**	**307100**
		(Hectares)	**(126269)**	**(130274)**	**(124277)**
3.	**Production (Lakh Tonnes)**				
	Recognised Units		108.57	110.52	151.05
	Un-Recognised Units		40.25	37.09	48.19
	Total		**148.82**	**147.61**	**199.24**
4.	**Distribution (Lakh Tonnes)**				
	i) Human Consumption		48.81	54.14	59.63
	ii) Export		12.22	22.04	38.04
	iii) Industries		75.47	76.56	86.81
	Total		**136.50**	**152.74**	**184.48**
5	**Stock as on 31st December 77.67**		**56.19**	**56.48**	
6	**IODISED SALT (Lakh Tonnes)**				
	Production		40.99	44.99	48.88
	Supplies (Indegenous)		38.94	43.33	46.44

Ref: Annual report of Salt Dept. Govt. of India

“Indian salt industry is going global”.

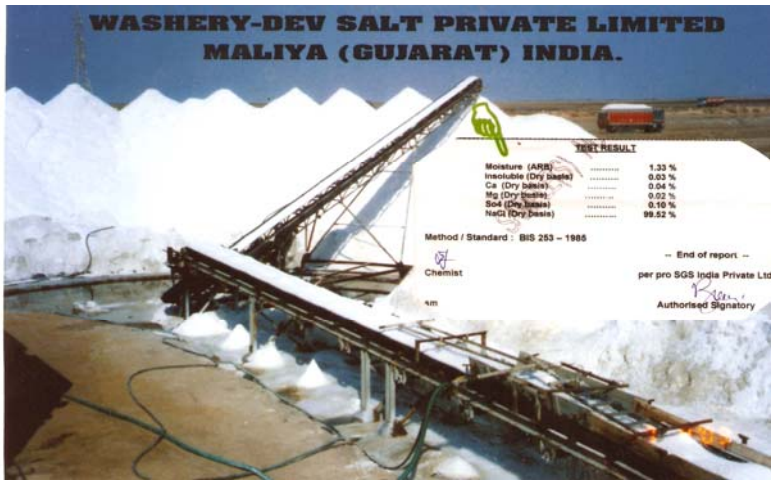
Salt production of India is 18 to 20 millions tons per annum and India is the third largest salt manufacturer of the World, after China & USA. Out of this about 3.5 millions tons salt is washed in mechanized washing plants and up graded to international standard having purity 99.5% for Chlor-Alkali industry. The major quantity of washed salt is exported to Quatar, Japan and other countries and consumed by Indian chlor-alkali industry. The washing plants are increasing day by day and quality is also improving very fast.

About 218020 Hectares land is under salt production

Salt Harvesting in India

- In last five years more than 15 Salt Washing plants have come up to meet requirement for high purity salt.
- Now few Salt Works are fully mechanized with washing plants and they have achieved the following quality-
    1. Sodium Chloride (NaCl) % 96.50 - 97.50 (on wet basis)
    2. Moisture (H2O) % 01.50 - 03.00
    3. Calcium (Ca) % 00.03 - 00.05
    4. Magnesium (Mg) % 00.02 - 00.03
    5. Sulphate(So4) % 00.10 - 00.15
    6. Insolubles % 00.01 - 00.03
    7.
- The price of above salt, having purity 99.5%, after taking into consideration washing losses, stevedoring and other logistic expenses with marginal profit is about 15 to 16 USD per ton on FOBT basis. At present this quality salt is available in limited quantity but availability is increasing very fast as more and more washing plants are coming up in India.

Salt department laboratory



Salt Washing in Dev Salt at Maliya

The leading caustic soda manufacture of India GRASIM Industry certify the quality of received from “Dev Salt” as under-

Above reports are on wet basis and on wet basis purity is more than 99.5%. This salt is produced by Dev Salt for Indian Chlor Alkali Industries

TO WHOM SO EVER IT MAY CONCERN

M/s. Dev Salt is a regular supplier of mechanized washed salt and has been supplying good quality of washed salt to us on regular basis. We are getting good quality of salt since last few months as per specification given below:

Specification

Sodium Chloride (Nacl)(washed)		**97.61%**
Moisture	:	**1.99%**
Water Insolubles	:	**0.12%**
Sulphate (So4)	:	**0.13%**
Calcium (Ca)	:	**0.04%**
Magnesium (Mg)	:	**0.03%**

We would be happy to procure more quantity of good quality washed salt from them in case they are able to increase the production of mechanized washed salt.

For Grasim Industries Ltd
Chemical Division

Suresh Sodani

Suresh Sodani
Vice President (F&C)

Majority of salt works are still having manual operations, but large salt works are going for mechanization.

Edible Salt:

Indian salt industry is meeting the challenge of supplying iodized salt to entire country. The production of iodized salt is now more than 5.0 million tons as against the total requirement of 6 million tons of edible salt. There are 900 iodization plants the usual process of iodization adopted is spray method with acapacity of 16 million tons per annum. There are 42 salt refineries with a total capacity of 3.76 million tons per annum located in the states of Gujarat, Tamil Nadu, Uthar Pradesh, Rajasthan. In addition to above there are two giant vacuum salt plants of capacity one million tons.Other varieties of edible salt consumed in India are Iron Fortified Salt,Double Forfeited Salt. A new product “Health Salt” Containing micronutrients iodine, iron, folic acid, was also come up near Chennai in Tamil Nadu.

Salt based Industry

- There are four giant Soda Ash factories in India total production of Soda Ash is about 2.5 million tons per annum and in addition there are large nos. of Caustic Soda & Chlorine industries in India. The Salt based Industry is concentrated more in Gujarat. Total Salt consumption for Industries is 6.5 million tons annum.
- The New Chemicals Industries are coming up and existing units are going for major expansions; growth is 8%.

India is a net exporter of Soda Ash and emerging as a significant regional player. The current low per capita Soda Ash consumption also shows tremendous growth potential over next few years. Unlike to world average of 56% consumption of Soda Ash by the glass industry, the Indian glass industry only consumes 25%. The major share is used by Indian detergents industry.

- Soda Ash uses in glass & detergents is 65%
- Glass industry estimated to grow @ 7% and Detergent @ 4.5% over the next 4 years
- Tightness in the global demand-supply situation expected
- There is good opportunity to increase export
- Low per capita consumption leaves a lot of potential to be tapped
- Despite the steep drop in duty rates over the years, the industry has been able to effectively compete with imports and is geared up for further reductions.
- Growth of Soda Ash and Salt industry directly connected hence good growth in salt demand is expected.

Potential for the Growth of Salt Industry

- India has very long coast line and out of that Gujarat Coast line is of 1600 Kms
- In Gujarat in addition to existing salt industry lot of Land available along the side of coast for developing more salt works.
- Climatic conditions are suitable for salt industry.
- Easy Availability of skilled labours
- Good Administration of our Govt. and their Corporation.
- Our low cost of production
- Govt. supports for critical infrastructure facilities.
- Minor Ports have loading capacity 5000 tons /day to 20000 tons /day in mid stream loading where as big port like Kandla have achieved the av. rate of loading of 25000 tons / day. We have a big advantage that ships of the capacity from 5000 tons to 100,000 tons could be loaded at our ports. There is potential for developing more ports as per requirement. In south India there is also a big port, Tuticorin close to salt manufacturing area.
- Now only 20% industries have gone for mechanization and modernization, 50% from balance can also go immediately.
- Average yield of salt works is only 100 tons per hectare. This can be increased to 300 tons per annum by adopting modernization.

Opportunities

- Export Market- 1) Quatar 2) Malaysia 3) Philippines) Japan 5) China 6) Vietnam 7) Indonesia 8) Nepal
- India’s location is very suitable to supply salt to China, Japan, Middle East and to other Asian countries.
- India has potential to increase productivity as well as quality.
- Available manpower.

- Wind Power-largest coastal line of Gujarat has potential to Generate 5000 MW through Wind Energy. The Salt Industry can make use of this energy jointly through associations.
- Availability of good major and minor ports as well as of good anchor points.
- To grab the developing market of Middle East.

CONCLUSIONS

- India's salt production can be increased considerably by achieving average yield of 300 tons per hectare and by developing available large areas in Gujarat.
- Salt quality required to be improved in general in all sectors small and big to feed good quality salt to Indian Chlor-Alkali Industries as well as for export.
- Salt Industry has very good future hence new entrepreneurs should grab this opportunity.