

SALT



# Indian Minerals Yearbook 2020

(Part- III : Mineral Reviews)

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**SALT**

(ADVANCE RELEASE)

**GOVERNMENT OF INDIA  
MINISTRY OF MINES  
INDIAN BUREAU OF MINES**

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## 25 Salt

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**S**alt is the most significant of all the industrial minerals. Occurrence of rock salt in India is scanty. At the time of Independence, there used to be shortfall in production of salt and the same was met through imports. Since then, India has made tremendous progress in production of salt, achieving self-sufficiency in 1953 and even started exporting salt to other countries.

Common salt, when pure, is mineral halite which is an essential item for human consumption. The per-capita consumption of salt in the country is estimated to be about 14 kg, which includes edible and industrial salt. The current annual requirement of salt in the country is estimated to be 63 lakh tonnes for edible use (including requirement for cattles) and 118 lakh tonnes for industrial use.

"Salt is a Central Subject in the Constitution of India and appears as Item No. 58 in the Union List of the 7<sup>th</sup> Schedule, which reads:

- (a) "Manufacture, Supply and Distribution of salt by Union Agencies; and
- (b) "Regulation and control of manufacture, supply and distribution of salt by other agencies".

The Central Government is responsible for controlling and regulating all aspects of the Salt Industry. The Salt Commissioner's Organisation (SCO), Jaipur, Rajasthan, an attached office under the Ministry of Commerce & Industry (Department of Industrial Policy & Promotion), Government of India, is the Authority entrusted with the above task. The SCO is responsible for monitoring the production, distribution, quality, prices, supply and administration of Salt Cess Act, 1953 and the Rules, made thereunder.

### RESERVES/RESOURCES

As per NMI database, based on UNFC system, the total reserves/resources of rock salt as on 1.4.2015 has been estimated at 16.03 million tonnes

in Mandi, Himachal Pradesh. The entire resources, fall under Remaining Resources category.

### PRODUCTION AND STOCKS

The rock salt production which was only 130 tonnes during 2019-20 increased by 665% as compared to that in the preceding year. In the current year, production was reported by a single Public Sector mine from Himachal Pradesh (Tables-1 to 3).

Mine-head closing stocks of rock salt at the end of the year 2019-20 was 3 tonnes as against 2 tonnes in 2018-19 (Table-4).

The average daily labour employed in rock salt mines during 2019-20 was 27 same as that in the previous year.

India is the 3<sup>rd</sup> largest salt (common) producing country in the world after China & USA with a production of about 300 lakh tonnes during the year 2019-20.

Production of salt involves extensive use of renewable sources of energy. Weather conditions play an important role in production of salt.

Salt (common) is manufactured mainly by solar evaporation of sea water. Sea salt constitutes about 80% of the total salt produced in the country. Gujarat (81.45%) was the leading State followed by Rajasthan (8.59%) and Tamil Nadu (7.96%). Private Sector contributed significantly in the production of salt and accounted for 92% of the production. Public/Joint Sector contributed 1.2% and the rest 6.7% was from the Co-operative Sector during 2019-20.

The major by-products recovered in the Salt Industry are gypsum, bromine, magnesium chloride, magnesium sulphate, ammonium bicarbonate, soda ash, caustic soda and soda bicarbonate. The average number of labourers employed in the Salt Industry during 2017-18 and 2018-19 were 94,225 and 92,474 respectively.

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**Table – 1 : Producers of Rock Salt, 2019-20**

Name & address of producer	Location of mine		
	State	Mine	District
Hindustan Salt Ltd, B- 427, Pradhan Marg, Malviya Nagar, Jaipur - 302 017 Rajasthan.	Himachal Pradesh	Drang	Mandi

**Table – 2 : Production of Rock Salt, 2017-18 to 2019-20  
(By States)**

(Qty in tonnes; Value in `'000)

State	2017-18		2018-19		2019-20 (P)	
	Quantity	Value	Quantity	Value	Quantity	Value
<b>India</b>	<b>47</b>	<b>421</b>	<b>17</b>	<b>160</b>	<b>130</b>	<b>1444</b>
Himachal Pradesh	47	421	17	160	130	1444

**Table – 3 : Production of Rock Salt, 2018-19 and 2019-20  
(By Sectors/States/Districts )**

(Qty in tonnes; Value in `'000)

State	2018-19			2019-20 (P)		
	No. of Mines	Quantity	Value	No. of Mines	Quantity	Value
<b>India</b>	<b>1</b>	<b>17</b>	<b>160</b>	<b>1</b>	<b>130</b>	<b>1444</b>
Public Sector	1	17	160	1	130	1444
Private Sector	-	-	-	-	-	-
<b>Himachal Pradesh/Mandi</b>	<b>1</b>	<b>17</b>	<b>160</b>	<b>1</b>	<b>130</b>	<b>1444</b>

**Table – 4: Mine-head Closing Stocks of Rock Salt, 2018-19 & 2019-20  
(By States)**

(In tonnes)

State	2018-19	2019-20 (P)
<b>India/Himachal Pradesh</b>	<b>2</b>	<b>3</b>

**MINING**

In recent development, Drang Mohal (Bhatog) Rock Salt Mine, Village Mohal Bhatog, District Mandi, Himachal Pradesh, of M/s Hindustan Salts has started production and it produced 130 tonnes of rock salt during 2019-20. Mining is carried out by underground semi-mechanised method. The entire mining area is hill (Govt. waste land) region with no forest land cover.

**USES**

Salt, in addition to its culinary and domestic uses, is also used in meat packing, fish curing & its preservation, dairying, preservation & processing of hides, manufacturing of soaps, detergent & dyestuff, dyeing & finishing of fabrics, refrigeration, glazing earthenware, explosives, leather industries, bakery products, for soil stabilisation, in manufacturing artificial rubber and as wood

preservative. In agriculture, salt is used for treating hay and as a fertilizer for certain crops. In countries with cold weather conditions, salt is used in deicing, i.e., removal of snow and ice, from streets and highways.

### Industrial Applications

Salt is an important raw material used in Chemical Industry. It is used in the production of basic chemicals like sodium carbonate (soda ash), caustic soda, hydrochloric acid, chlorine, bleaching powders, chlorates, sodium sulphate (salt cake) and sodium metal. These basic chemicals, in turn, are used in the preparation of various end-products, such as, soaps, detergents, chlorinated hydrocarbons and carbon tetrachloride. Other important applications where salt is widely used are in food processing; as freezing-point depressant in refineries & milk supply schemes; treatment of industrial wastes; purification of drinking water; and manufacture of synthetic indigo, explosives, papers, etc.

The rock salt produced from Mandi mines contains 67.81% NaCl which is not suitable for human consumption as the content of sodium chloride is low from the required 96% NaCl necessary for human consumption. However, this salt finds application as essential supplement in cattle feeds.

### Iodised Salt

The SCO is the nodal agency for monitoring the production and quality of iodised salt at the production level and ensuring its equitable distribution in the country. Production of iodised salt continued its progressive trend and the Universal Salt Iodisation (USI), a programme under National Iodine Deficiency Disorder Control Programme (NIDDCP) reached new heights.

Iodised salt is produced by mixing potassium iodate with salt using spray, drip feed, dry mixing and submersion processes. Iodisation of salt is carried out in plants operated by Sambhar Salts Ltd (a subsidiary of Hindustan Salts Ltd), Kharagoda, Gujarat. SCO has facilitated establishment of 629 salt iodisation units including 132 refineries & washeries (141.90 lakh tonnes) with an annual installed capacity of 220 lakh tonnes up to March 2019. Production of 68.29 lakh tonnes of iodised salt during 2017-18 and 67.04 lakh tonnes in

2018-19 was reported. The Bureau of Indian Standards (BIS) has revised the specifications of iodised salt and formulated new specifications for refined iodised salt and Vacuum Evaporated iodised salt under IS 7224:2006. BIS has prescribed IS 797:1982 (Reaffirmed 2012) as specification of common salt for chemical industries.

### Potassium Iodate Manufacture

Potassium iodate, used for fortifying salt with iodine is produced indigenously, however, iodine, the basic raw material for its production is imported. There are about 13 potassium iodate manufacturing units, registered with the Salt Department.

Statewise production of salt (common) during the year 2018-19 is furnished in Table-5.

**Table – 5: Statewise Production of Salt (Common), 2018-19 (By States)**

States	2018-19
<b>India</b>	<b>299.78</b>
Andhra Pradesh	4.35
Goa	0.01
Gujarat	244.16
Karnataka	0.12
Maharashtra	1.39
Odisha	0.06
Rajasthan	25.75
Tamil Nadu	23.87
West Bengal	0.09

*Source: Salt Commissioner, Govt. of India, Jaipur, Annual Report, 2018-19*

## CONSUMPTION

Salt is extensively used in various industries like Caustic Soda, Soda Ash, Soaps & Detergents, Chemicals, Water softening plants, dyes etc. The Chlor-Alkali Industries, however, are the major consumer of salt. Various industries in the country consumed 110.97 lakh tonnes of salt during the year 2018-19 as against 118.11 lakh tonnes in 2017-18.

## TRADE POLICY

Exports of salt have been brought under Open General Licence (OGL) with effect from 25<sup>th</sup> August, 1987 vide Ministry of Commerce, New Delhi, Export

Trade Control Public Notice No. 26-ETC(PN)/87 dated 25<sup>th</sup> August, 1987. The Ministry of Commerce, Government of India, vide Notification No. 482(E) dated 25<sup>th</sup> July, 1991 has exempted certain categories of export from compulsory pre-shipment inspection.

As per Foreign Trade Policy (FTP) 2015-2020, exports and imports of rock salt and common salt (including iodised salt) under Heading no. 2501 are allowed as 'Free'.

## FOREIGN TRADE

### Exports

During 2019-20, the exports of salt (other than common salt) decreased by about 8.42% to about 11.68 million tonnes from about 12.76 million tonnes in the previous year. Exports were mainly to China (42%), Republic of Korea (18%), Japan (11%) and Qatar, Indonesia & Vietnam (5% each). On the other hands the exports of salt rock increased by more than five times to 539.86 thousand tonnes in 2019-20 from 123.91 thousand tonnes in 2018-19. The exports were

mainly to Bangladesh (58%) and China (32%). Exports of salt (other) decreased by 12% to 11.14 million tonnes during 2019-20 from 12.63 million tonnes in the previous year. Exports were mainly to China (42%), Republic of Korea (18%), Japan (12%) and Qatar (5%) (Tables-6 to 8).

### Imports

The imports of salts (other than common salt) decreased by 17% to 65,261 tonnes in 2019-20 from 78,712 tonnes in the previous year. Imports were mainly from UAE (49%), Pakistan (30%) and Iran (15%) under Open General Licence (OGL). Similarly import of salt rock also decreased by 19% to 60,440 tonnes in 2019-20 from 74,457 tonnes in 2018-19. The imports were mainly from UAE (53%), Pakistan (31%) and Iran (15%). On the other hand import of salt (other) increased by 13% to 4,821 tonnes during 2019-20 from 4,255 tonnes in the previous year. The imports were mainly to UK (27%), China (17%) and Pakistan (10%) (Tables-9 to 11).

**Table – 6: Exports of Salt (other than common salt)  
(By Countries)**

Country	2018-19 (R)		2019-20 (P)	
	Qty (t)	Value ('000)	Qty (t)	Value ('000)
<b>All Countries</b>	<b>12755391</b>	<b>14627309</b>	<b>11681713</b>	<b>13681151</b>
China	7186574	8025620	4861999	5061354
Korea, Rep. of	1600291	1500314	2059417	2406765
Japan	1089189	1136643	1329043	1624468
Qatar	660607	873199	584982	884589
Indonesia	368408	363321	572478	710003
Vietnam	501852	570292	562459	578265
Bangladesh	397523	524802	473100	574713
Taiwan	151516	115257	297473	284666
Oman	103841	179410	156906	242381
UAE	159913	224188	168031	229624
Other countries	535676	1114263	615825	1084321

*Figures rounded off*

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**Table – 7: Exports of Salt Rock  
(By Countries)**

Country	2018-19 (R)		2019-20 (P)	
	Qty (t)	Value (‘000)	Qty (t)	Value (‘000)
<b>All Countries</b>	<b>123913</b>	<b>188254</b>	<b>539861</b>	<b>558987</b>
Bangladesh	59699	79064	310484	339612
China	61172	56787	172635	130217
Korea, Dem. P. Rep.	-	-	55000	38542
USA	285	10672	290	11466
Australia	413	11382	119	7345
UAE	156	3314	313	5680
Qatar	120	2123	249	3636
UK	82	1341	66	2856
Canada	60	1992	61	2418
Saudi Arabia	25	230	124	2240
Other countries	1901	21349	520	14976

*Figures rounded off***Table – 8: Exports of Salt (Other)  
(By Countries)**

Country	2018-19 (R)		2019-20 (P)	
	Qty (t)	Value (‘000)	Qty (t)	Value (‘000)
<b>All Countries</b>	<b>12631477</b>	<b>14439055</b>	<b>11141853</b>	<b>13122164</b>
China	7125402	7968833	4689364	4931138
Korea, Rep. of	1600291	1500314	2059417	2406765
Japan	1089187	1136592	1329016	1623705
Qatar	660487	871076	584733	880953
Indonesia	368408	363321	572478	710003
Vietnam	501845	569676	562459	578265
Taiwan	151516	115257	297473	284666
Oman	103715	178502	156897	241918
Bangladesh	337825	445738	162616	235101
UAE	159757	220873	167719	223945
Other countries	533044	1068872	559680	1005705

*Figures rounded off***Table – 9: Imports of Salt (other than common salt)  
(By Countries)**

Country	2018-19 (R)		2019-20 (P)	
	Qty (t)	Value (‘000)	Qty (t)	Value (‘000)
<b>All Countries</b>	<b>78712</b>	<b>472880</b>	<b>65261</b>	<b>466170</b>
UAE	++	149	32014	117221
Belgium	62	14481	172	77531
Pakistan	75445	263757	19535	66989
Spain	128	65949	135	66737
Iran	-	-	9773	40068
USA	66	19442	105	24012
UK	1499	18124	1282	14934
Germany	328	22609	311	11352
Thailand	256	6545	385	11048
Malaysia	-	-	442	7255
Other countries	927	61823	1108	29022

*Figures rounded off*

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**Table – 10: Imports of Salt Rock  
(By Countries)**

Country	2018-19 (R)		2019-20 (P)	
	Qty (t)	Value (` '000)	Qty (t)	Value (` '000)
<b>All Countries</b>	<b>74457</b>	<b>252361</b>	<b>60440</b>	<b>226758</b>
UAE	-	-	31839	116411
Pakistan	74413	251651	19037	62322
Iran	-	-	9050	37719
Malaysia	-	-	442	7255
Australia	-	-	1	1762
Germany	44	706	27	802
Afghanistan	-	-	25	328
Turkey	-	-	20	152
UK	++	4	++	7

*Figures rounded off*

**Table – 11: Imports of Salt (Other)  
(By Countries)**

Country	2018-19 (R)		2019-20 (P)	
	Qty (t)	Value (` '000)	Qty (t)	Value (` '000)
<b>All Countries</b>	<b>4255</b>	<b>220519</b>	<b>4821</b>	<b>239412</b>
Belgium	62	14481	172	77531
Spain	128	65949	135	66737
USA	66	19442	105	24012
UK	1499	18120	1282	14927
Thailand	256	6545	385	11048
Germany	284	21903	284	10550
China	636	5744	806	6849
Israel	32	2483	62	5199
Pakistan	1032	12106	498	4667
Singapore	70	41322	15	4364
Other countries	190	12424	1078	13528

*Figures rounded off*

## FUTURE OUTLOOK

Sambhar Salts Ltd (SSL) approximately produces 2 lakh tonnes of raw salt every year. In addition, approximately 40,000 tonnes of processed salt are also produced.

Plans have been drawn to revive abandoned infrastructure and salt production areas and enhance the raw salt production from two lakhs

TPA to 5 lakh TPA by 2017-18 and 10 lakh TPA in next three years time. Schemes are also under preparation to enhance further capacity of raw salt production to 10 lakh tonnes per annum.

India is the third largest salt (including common salt) producing country in the world (25 million tonnes) after China (63 million tonnes) and USA (42 million tonnes) with global annual production being about 285 million tonnes.