

An Economic Study on Value of Export and Import of All Minerals in India

J.Merciyal Margret

Ph.D., Scholar in Economics, Reg. No.18112151032003, PG Department and Research Centre in Economics, Pope's College (Autonomous), Sawyerpuram.

Dr.S.Henry Pandian

Affiliated by Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli – 627 012, Tamil Nadu, India

Associate Professor in Economics. Pope's College (Autonomous), Sawyerpuram - 628251
Affiliated by Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli – 627 012, Tamil Nadu, India

Dr.V.Duraisingh

Assistant Professor in Economics, Rani Anna Government College for Women, Tirunelveli – 627 008, Tamil Nadu,

Affiliated by Manonmaniam Sundaranar University, Abishekapatti, Tirunelveli – 627 012, Tamil Nadu, India

Abstract

India is rich in minerals and however, the consumption of minerals and metal by Indians is low. This is general trend. This trend leads to low economic development. Hence a scientific economics study on the Indian foreign trade in minerals including the export and import is necessary to promote this venture and to frame a suitable mining policy. The study reveals that there has been a steady increase in the the India's export value of all minerals. India can reclaim the first place in the India's export value of all minerals trade, provided the Indian government pays more attention to the India's export value of all minerals marketing activities, export promotional activities.

Key Words: Export, Import, Minerals and Value.

Introduction

India possesses a rich wealth of mineral resources and a flourishing mining industry producing 84 minerals of which four are fuel, 11 metallic 50 non-metallic and 20 are minor minerals. In the total value of minerals production, fuels contribute about 83 per cent, metallic minerals seven per cent and the remaining 10 per cent is shared by non-metallic minerals. The value of mineral production constitutes around two per cent of the gross domestic product. The mining sector provides daily employment for nearly about 800,000 people.

Export of minerals and ores, mainly consisting of granite stones and products thereof, processed minerals and bulk minerals has registered an increase of Rs.39,928 crores and it is further increased to Rs.1,96,654 crores in he year 2020-21.

Statement of Problem

India is rich in minerals and however, the consumption of minerals and metal by Indians is low. This is general trend. This trend leads to low economic development. Hence a scientific economics study on the Indian foreign trade in minerals including the export and import is necessary to promote this venture and to frame a suitable mining policy. The present study aims at it with the objectives given below.

Objectives of the Study

1. To study the export and import of all minerals in India.
2. To know about the trend of export and import of all minerals in India.
3. To suggest policy measures.

Methodology

The present study is an attempt to evaluate the export and import of all minerals in India. The period of the study is from 2000-01 to 2020-21. The India is the Unit of the study. Secondary data were made available from the Indian Bureau of Mines, Indian Mineral Year Book and various journals, books and websites. An attempt has been made to draw references by employing some of common research methods. Further the data collected are analysed and interpreted with the help of percentage, Average Annual Growth Rate, Compound Growth Rate and various trend model and forecasting.

Analysis and Interpretation

Value of Export and Import of all Minerals in India

Table 1 shows that in value of export and import of all minerals in India. In all the years from 2000-01 to 2020-21 value of export and import of all minerals is increase year after year.

Table: 1 – Value of Export and Import of All Minerals in India

(Rs. In Crores)

Year	Export Value of All Minerals	Import Value of All Minerals
2000-01	39928	1065321
2001-02	42948	1124815
2002-03	46618	117294
2003-04	49914	130078
2004-05	69374	182710
2005-06	79790	243839
2006-07	80931	305028
2007-08	95022	349507
2008-09	109296	514509
0009-10	127831	524830

2010-11	174370	669010
2011-12	175310	944430
2012-13	160101	1100800
2013-14	194784	1215827
2014-15	178019	1071733
2015-16	170946	738789
2016-17	200131	809445
2017-18	199469	1028529
2018-19	219168	1299186
2019-20	189683	1151530
2020-21	196654	791320
AAGR	8.68	7.75
ACGR	9.20	7.60

Source: Indian Mineral Book, 2000-01 to 2020-21..

India's export value of all minerals is observed to have increased from Rs.39,928 crores to Rs.1 96,654 crores during 2000-01 and 2020-21 respectively. The year 2018-19 is the remarkable year when India's export value of all minerals reached Rs.1,96,654 crores. The annual average growth rate is worked out to be 8.68 per cent and the annual compound growth rate is 9.20 per cent.

India's import value of all minerals is observed to have increased from Rs.1,06,532 crores to Rs.7,91,320 crores during 2000-01 and 2020-21 respectively. The year 2018-19 is the remarkable year when India's import value of all minerals reached Rs.12,99,186 crores. The annual average growth rate is worked out to be 7.75 per cent and the annual compound growth rate is 7.60 per cent.

In this study linear, logarithmic, quadratic and exponential trend models, are attempted to forecast India's export value of all minerals. The results are shown in the table 2 and the trend curves of India's export value of all minerals are diagrammatically presented in Figure 1.

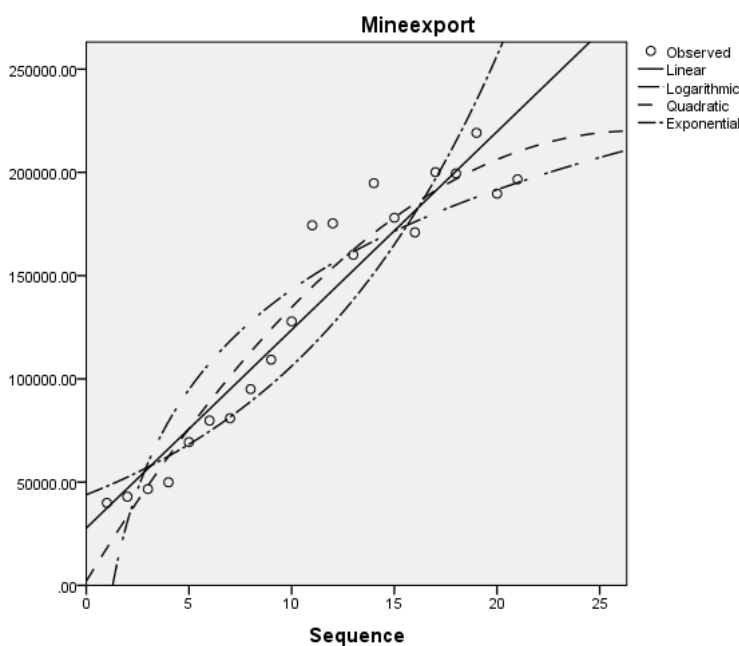
Table: 2 - Export Value of all Minerals in India: Estimated Trend Models

Dependent	Mth	Rsq	df.	F	Sigf	b0	b1	b2
EXMININ	LIN	.911	19	194.762	.000	27744.014	9600.271	
EXMININ	LOG	.837	19	97.303	.000	-17522.917	69816.187	
EXMININ	QUA	.938	18	135.965	.000	2018.281	16311.332	-305.048
EXMININ	EXP	.880	19	139.332	.000	43935.735	.088	

EXMININ: Export Value of Minerals in India

In the estimation of various trend models, the results show that the quadratic model explains more than 94 per cent of the variations in India’s export value of all minerals. All the four models are found significant in terms of their respective values of ‘R²’ and ‘F’ statistic. The regression coefficients of the four models are found significant at 5% level. The trend curves fit well and the R² value is 0.911, 0.837, 0.938 and 0.880 respectively. Hence, among the four models, exponential model is found to be the best fit with the high R² value of 0.731.

Figure: 1 - Export Value of all Minerals in India: Estimated Trend Models



As per the linear, logarithmic, quadratic and exponential trend models estimated that the India’s export value of all minerals is found to be Rs.86,052.646 crores, Rs.68302.591 crores, Rs.72665.641 crores, and Rs.2189122.200 crores, for the year 2027-28 respectively. Hence, there has been a steady increase in India’s export value of all minerals,

In this study linear, logarithmic, quadratic and exponential trend models, are attempted to forecast India's import value of all minerals. The results are shown in the table 3 and the trend curves of India's import value of all minerals are diagrammatically presented in Figure 2.

Table: 3 - Import Value of all Minerals in India: Estimated Trend Models

Dependent	Mth	Rsqr	df.	F	Sigf	b0	b1	b2
IMMININ	LIN	.300	19	8.145	.010	350341.810	34724.468	
IMMININ	LOG	.110	19	2.343	.142	387868.725	159393.227	
IMMININ	QUA	.348	18	4.812	.021	568105.090	-22083.345	2582.17 3
IMMININ	EXP	.352	19	10.342	.005	264023.519	0.073	

IMMININ: Import Value of Minerals in India

In the estimation of various trend models, the results show that all the model explains less than 35 per cent of the variations in India's import value of all minerals. All the four models are found insignificant in terms of their respective values of 'R²' and 'F' statistic. The regression coefficients of the four models are also found insignificant at 5% level. The trend curves not fit well and the R² value is 0.300, 0.110, 0.348 and 0.352 respectively.

The regression and growth rate and coefficient of variation of cardamom production in India are presented in Table 4.

Table: 4 – Regression and Growth Rate of Export and Import value of all Minerals in India

Trade	Log Linear		R ²	F	t	Co-efficient of variation in %	Compound Growth Rate in % P.A
	Constant	Reg. Co-efficient					
Export	43935.735 (4124.077)	1.092* (0.008)	0.880	139.322	133.771	46.80	9.20
Import	264023.519 (75375.642)	1.076* (0.024)	0.352	52.327	43.983	53.71	7.60

Source: Computed from Secondary Data.

Figures in Parent thesis are standard errors.

* Significant at one per cent level.

It is found from Table 4, that the regression model is responsible for 88 per cent (R²) variation for export and only 35 per cent for Import of minerals in India. The regression co-efficient of mineral; export of India is 1.092 significant and mineral import of India is 1.076t insignificant at one per cent level. The compound growth rate is high in import of minerals in India is 7.60 per cent per year id greater than export minerals in India's. The value of mineral import is comparatively

insignificant on the basis of the R^2 and co-efficient values.

Conclusion

The study reveals that linear, logarithmic, quadratic and exponential trend models estimated that the India's export value of all minerals is found to be Rs.86,052.646 crores, Rs.68302.591 crores, Rs.72665.641 crores, and Rs.2189122.200 crores, for the year 2027-28 respectively. Hence, there has been a steady increase in the the India's export value of all minerals. India can reclaim the first place in the India's export value of all minerals trade, provided the Indian government pays more attention to the India's export value of all minerals marketing activities, export promotional activities.

Reference

1. Auro Kumar Sahoo., Naresh Chandra Sadhu, Dukhabandhu Sahoo and Bibhuti Bhusan Pradhan., (2014). Mineral Export and Economic Growth in India: Evidence from VAR Model Analysis. Miner Econ, Vol.27, pp.51–58.
2. Ordenbek Mazbayev, Olena Volik, Natalia Panteleeva, and Olena Hanchuk., (2021). Methodological approaches to the study of mineral resource potential of regions. Web of Conferences, 280, pp.1-9.