

GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
LOK SABHA
STARRED QUESTION NO. *218
TO BE ANSWERED ON 15.03.2023

SETTING UP ELECTRONIC MANUFACTURING CLUSTERS

***218 SHRI RAJIV PRATAP RUDY:**

Will the Minister of ELECTRONICS AND INFORMATION TECHNOLOGY be pleased to state:

- (a) the total number of Electronic Manufacturing Clusters (EMCs) that have been set up in the country, State/UT-wise including Bihar;
- (b) the total number of MNCs and Indian start-ups that have set up their units in the existing EMCs and the number of people they are employing currently;
- (c) whether it is a fact that the electronic manufacturing sector in India has under gone tremendous growth in the current year;
- (d) if so, the details of the revenue generated by the industry during the last five years along with the potential for growth in the next five years;
- (e) the details of India's share in the total global electronics exports during the last five years, State/UT-wise; and
- (f) the steps taken by the Government to transform India into a hub of Electronics Manufacturing by 2030?

ANSWER

MINISTER OF ELECTRONICS AND INFORMATION TECHNOLOGY
(SHRI ASHWINI VAISHNAW)

- (a) to (f): A statement is laid on the Table of the House.

**STATEMENT REFERRED TO IN THE REPLY TO LOK SABHA STARRED
QUESTION NO. *218 FOR 15.03.2023 REGARDING SETTING UP ELECTRONIC
MANUFACTURING CLUSTERS**

(a): Government of India's goal is to make India a significant Electronics System Design and Manufacturing hub as part of its AtmaNirbhar Bharat economic policies. Government of India has taken several strategic steps and initiatives for broadening and deepening the electronics manufacturing ecosystem in the country. Accordingly, Ministry of Electronics and Information Technology (MeitY) notified Electronics Manufacturing Clusters (EMC) Scheme in October, 2012 to provide support for creation of world class infrastructure for attracting investment in Electronics System Design and Manufacturing (ESDM) Sector. The Scheme was closed for receipt of applications from October, 2017. Under the scheme, 19 Greenfield EMCs and 3 Common Facility Centres (CFCs) over an area of 3,464 acres with project cost of INR 3,499 crore including central Grant-in-aid of INR 1,470 crore accorded approval in fifteen (15) states across the country. The details are placed at **Annexure-I**.

Based on further requirement for strengthening of infrastructure to create robust electronics manufacturing ecosystem in the country, Ministry of Electronics and Information Technology introduced Modified Electronics Manufacturing Clusters (EMC 2.0) Scheme on 1st April, 2020 wherein any State Government or State Implementing Agency (SIA) or Central Public Sector Unit (CPSU) or State Public Sector Unit (SPSU) or Industrial Corridor Development Corporation (ICDC) such as DMICDC, etc. *or* joint venture of such agencies with Anchor Unit(s) or any other industrial estate / industrial park developer can submit its application. The Scheme is open for receipt of application for a period of 3 years i.e., March, 2023 and further period of 5 years is available for disbursement of the funds to the approved projects. Under the EMC 2.0 scheme, 3 applications over an area of 1,337 acres with project cost of INR 1,903 crore including central Grant-in-aid of INR 889 crore have been approved in three (3) states across the country. The details are placed at **Annexure-II**. Under the scheme, no application is received from the state of Bihar so far.

(b): In the approved EMCs, 387 companies have taken manufacturing space with projected investment of INR 63,706 crore and having potential of generating employment for 2.72 lakh people. Out of these, 63 companies are already in production with investment of INR 9,575 crore and provided employment to 30,930 people. Another, 131 companies are in construction with projected investment of INR 39,531 crore which will provide employment to 56,732 people after operationalization. More than 1 crore mandays has been generated for infrastructure development in EMC.

(c) to (d): Yes. Government has taken several measures for the expansion of electronics manufacturing in the country. As a result, the domestic production of electronic items has increased substantially from INR 3.17 lakh crore (42 Billion USD) in FY 2016-17 to INR 6.40 lakh crore in FY 2021-22 (87.1 Billion USD) at a Compound Annual Growth Rate (CAGR) of 15%.

(Values in INR Crore)

| Electronic Goods (FY) | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
|-----------------------|----------|----------|----------|----------|----------|----------|
| Production | 3,17,331 | 3,88,306 | 4,58,006 | 5,33,550 | 5,54,461 | 6,40,810 |

Source: MeitY Annual Report

The domestic production of electronic items is expected to reach INR 8.42 lakh crore (USD 105 Bn) in the current FY2022-23 as compared to INR 6.40 lakh crore (USD 87.35 Bn) in FY 2021-22 and is targeted to reach USD 300Bn by 2025-26.

(e): Export of electronic goods has increased from INR 39,978 crore (USD 5.96 Bn) in FY 2016-17 to INR 109,797 crore in FY 2021-22 (USD 14.6 Bn), exhibiting Compound Annual Growth Rate (CAGR) of 22.39%.

(Values in INR Crore)

| Electronic Goods | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
|------------------|---------|---------|---------|---------|---------|---------|
| Exports | 39,980 | 41,220 | 61,908 | 82,929 | 81,822 | 109,797 |

Source: Directorate General of Commercial Intelligence and Statistics (DGCI&S)

- The India's electronic exports is expected to reach INR 1.76 lakh crore (USD 22 Bn) in the current FY2022-23 as compared to INR 1.09 lakh crore (USD 14.6 Bn) in FY 2021-22. The state wise export of electronic items is placed at **Annexure -III**.
- The global exports of electronic goods from major manufacturing economies (including China, Vietnam, Mexico, Taiwan, Korea, Japan, USA and Germany) is approx. USD 1.5 trillion out of the global exports of USD 2.5 trillion, which includes a lot of re-exports. India's share of global exports has increased from the last year of 1.2% to approx. 1.8% in the current year.

(f): Government of India's goal is to broaden and deepen the country's electronic manufacturing ecosystem. In order to boost electronics manufacturing including semiconductors, and position India as a global hub for Electronics System Design and Manufacturing (ESDM) and compete globally, following steps are taken by the Government:

1. **National Policy on Electronics 2019:** The National Policy on Electronics 2019 (NPE 2019) has been notified on 25.02.2019. The vision of NPE 2019 is to position India as a global hub for Electronics System Design and Manufacturing (ESDM) by encouraging and driving capabilities in the country for developing core components, including chipsets, and creating an enabling environment for the industry to compete globally.

To attract and incentivize large investments in the electronics value chain and promote exports, following three Schemes have been notified under the aegis of NPE 2019:

(i) **Production Linked Incentive Scheme (PLI) for Large Scale Electronics Manufacturing** was notified on April 01, 2020 to provide an incentive of 4% to 6% to eligible companies on incremental sales (over base year) involved in mobile phone manufacturing and manufacturing of specified electronic components, including Assembly, Testing, Marking and Packaging (ATMP) units.

(ii) **Production Linked Incentive Scheme (PLI) for IT Hardware** was notified on March 03, 2021 to provide an incentive of 4% to 2% / 1% on net incremental sales (over base year) of goods manufactured in India and covered under the target segment, to eligible companies, for a period of four (4) year. The Target Segment under PLI Scheme includes (i) Laptops (ii) Tablets (iii) All-in-One PCs and (iv) Servers.

(iii) **Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS)** was notified on April 01, 2020 to provide financial incentive of 25% on capital expenditure for the identified list of electronic goods that comprise downstream value chain of electronic products, i.e., electronic components, semiconductor / display fabrication units, ATMP units, specialized sub-assemblies and capital goods for manufacture of aforesaid goods.

(iv) **Modified Electronics Manufacturing Clusters (EMC 2.0) Scheme** was notified on April 01, 2020 to provide support for creation of world class infrastructure along with common facilities and amenities, including Ready Built Factory (RBF) sheds / Plug and Play facilities for attracting major global electronics manufacturers along with their supply chain to set up units in the country. The Scheme provides financial assistance for setting up of both EMC projects and Common Facility Centres (CFCs) across the country.

2. **Program for Development of Semiconductors and Display Manufacturing Ecosystem:** To widen and deepen electronics manufacturing, the Union Cabinet on 15.12.2021, approved a comprehensive program with an outlay of INR 76,000 crore for the development of Semiconductors and Display manufacturing ecosystem. With the approval of Cabinet, this Programme has been recently modified on 21.09.2022. The modified programme offers Fiscal Support of 50% of Project Cost uniformly for semiconductor fabs across the technology nodes as well as for compound semiconductors, packaging and other semiconductor facilities.

Following Fiscal incentives are now available to eligible applicants:

- **Modified Scheme for setting up of Semiconductor Fabs:** It provides fiscal support for setting up semiconductor wafer fabrication facilities in the country. Fiscal support of 50% of the Project Cost is available for setting up of silicon-based semiconductor fabs across all technology nodes.
- **Modified Scheme for setting up of Display Fabs:** It provides fiscal support for setting up TFT LCD / AMOLED based display fabrication facilities. It provides fiscal support of 50% of Project Cost.
- **Modified Scheme for setting up of Compound Semiconductors / Silicon Photonics / Sensors Fab/ Discrete Semiconductor Fabs and Semiconductor ATMP / OSAT facilities in India:** It provides a fiscal support of 50% of the Capital Expenditure to the eligible applicants for setting up of Compound Semiconductors / Silicon Photonics (SiPh) / Sensors (including MEMS) Fab/ Discrete Semiconductor Fabs and Semiconductor ATMP / OSAT facilities in India.
- **Design Linked Incentive Scheme:** It offers financial incentives, design infrastructure support across various stages of development and deployment of semiconductor design for ICs, Chipsets, SoCs, Systems & IP Cores and semiconductor linked design. The scheme provides both “Product Design Linked Incentive” and “Deployment Linked Incentive”.

3. **100% FDI:** As per extant Foreign Direct Investment (FDI) policy, FDI up-to 100% under the automatic route is permitted for electronics manufacturing (except from countries sharing land border with India), subject to applicable laws / regulations; security and other conditions.

4. **Modified Special Incentive Package Scheme (M-SIPS):** The Scheme was notified on 27th July, 2012 to provide financial incentives to offset disability and attract investments in the electronics manufacturing sector. It was amended in August, 2015 to extend the period of the scheme, enhance scope of the Scheme by including 15 more product verticals, and attract more investment. The scheme was further amended in January, 2017 to expedite the investments. The scheme provides subsidy for capital expenditure - 20% for investments in Special Economic Zones (SEZs) and 25% in non-SEZs. The incentives are available for 44 categories / verticals of electronic products and components covering entire electronics manufacturing value chain. The Scheme was open to receive applications till 31.12.2018 and is in the implementation mode.

5. **Electronics Manufacturing Clusters (EMC) Scheme:** Electronics Manufacturing Clusters Scheme was notified on 22nd October, 2012 to provide support for creation of world-class infrastructure along with common facilities and amenities for attracting investment.

6. **Electronics Development Fund (EDF):** Electronics Development Fund (EDF) has been set up as a “Fund of Funds” to participate in professionally managed “Daughter Funds” which in turn will provide risk capital to startups and companies developing new technologies in the area of electronics and Information Technology (IT). This fund is expected to foster R&D and innovation in these technology sector INR 409 crore has been committed through EDF to 9 Daughter Funds with a targeted corpus of INR 2,626 crore.

7. **Phased Manufacturing Programme (PMP)** has been notified to promote domestic value addition in mobile phones and their sub-assemblies / parts manufacturing. As a result, India has rapidly started attracting investments into this sector and significant manufacturing capacities have been set up in the country. The manufacturing of mobile phones has been steadily moving from

Semi Knocked Down (SKD) to Completely Knocked Down (CKD) level, thereby progressively increasing the domestic value addition.

8. **Tariff Structure** has been rationalized to promote domestic manufacturing of **electronic** goods, including, *inter-alia*, Cellular mobile phones, Televisions, Electronic components, Set Top Boxes for TV, LED products and Medical electronics equipment.

9. **Exemption from Basic Customs Duty on capital goods:** Notified capital goods for manufacture of specified electronic goods are permitted for import at “NIL” Basic Customs Duty.

10. **Simplified import of used plant and machinery:** The import of used plant and machinery having a residual life of at least 5 years for use by the electronics manufacturing industry has been simplified through the amendment of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, vide Ministry of Environment, Forest and Climate Change Notification dated 11.06.2018.

11. **Relaxing the ageing restriction:** The Department of Revenue vide Notification No.60/2018-Customs dated 11.09.2018 has amended the Notification No.158/95-Customs dated 14.11.1995, relaxing the ageing restriction from 3 years to 7 years for specified electronic goods manufactured in India and re-imported into India for repairs or reconditioning.

12. **Public Procurement (Preference to Make in India) Order 2017:** To encourage ‘Make in India’ and to promote manufacturing and production of goods and services in India with a view to enhancing income and employment, the Government has issued Public Procurement (Preference to Make in India) Order 2017 vide the Department for Promotion of Industry and Internal Trade (DPIIT) Order dated 15.06.2017 and subsequent revisions vide Orders dated 28.05.2018, 29.05.2019, 04.06.2020 and 16.09.2020. In furtherance of the aforesaid Order, MeitY has notified mechanism for calculating local content for 13 Electronic Products viz., (i) Desktop PCs, (ii) Thin Clients, (iii) Computer Monitors, (iv) Laptop PCs, (v) Tablet PCs, (vi) Dot Matrix Printers, (vii) Contact and Contactless Smart Cards, (viii) LED Products, (ix) Biometric Access Control / Authentication Devices, (x) Biometric Finger Print Sensors, (xi) Biometric Iris Sensors, (xii) Servers, and (xiii) Cellular Mobile Phones, for procurement to be made from local suppliers.

13. **Compulsory Registration Order (CRO):** MeitY has notified “Electronics and Information Technology Goods (Requirement of Compulsory Registration) Order, 2012” for mandatory compliance to ensure safety of Indian citizens by curbing import of substandard and unsafe electronic goods into India. 63 Product Categories have been notified under the CRO and the order is applicable on 63 product categories.

14. **Establishment of Gallium Nitride (GaN) Ecosystem Enabling Centre and Incubator:** The project for “Establishment of Gallium Nitride (GaN) Ecosystem Enabling Centre and Incubator for High Power and High Frequency Electronics” has been approved. The project will be implemented by Society for Innovation and Development (SID), being converted to a Section 8 company titled “Foundation for Science, Innovation and Development” under the auspices of Indian Institute of Science (IISc) at Centre for Nano Science and Engineering (CeNSE), Bengaluru.

Annexure-I

| S.No. | State | Location | Implementing Agency | Area (Acres) | Financial Outlay (INR in crore) | | | No. of units allotted land |
|-------|----------------|---|--|--------------|---------------------------------|-----------------------|--------------|----------------------------|
| | | | | | Approved Project Cost | Approved Grant-in-aid | GIA released | |
| 1 | Andhra Pradesh | Sri City, Satyavedu Mandal, Chittoor District | Sri City EMC Pvt. Ltd. | 94 | 56.75 | 27.34 | 20.50 | 9 |
| 2 | | EMC-1@ Tirupati, Renigunta and Yerpadu Mandal, Chittoor District | Andhra Pradesh Industrial Infrastructure Corporation Ltd. (APIIC) | 113.27 | 74.27 | 37.13 | 9.31 | 4 |
| 3 | | EMC-II @ Tirupathi, Vikruthamala Village, Yerpadu Mandal, Chittoor District | | 501.40 | 248.89 | 98.46 | 55.71 | 35 |
| 4 | Assam | Bongora, Kamrup District, Assam | Assam Electronics Development Corporation Limited (AMTRON) | 100 | 119.85 | 50 | 25.00 | 8 |
| 5 | Chhattisgarh | Sector-22, Naya Raipur | Chhattisgarh State Industrial Development Corporation Ltd. (CSIDC) | 116.48 | 103.88 | 43.08 | 34.46 | 24 |
| 6 | Goa | Tuem, North Goa District | Department of IT, Govt. of Goa | 147.55 | 161.32 | 73.77 | 36.88 | 7 |
| 7 | Gujarat | Mundra, Kutch District | Mundra Solar Techno park Private Limited (MSTPL) | 631.38 | 745.14 | 315.69 | 252.56 | 10 |
| 8 | Jharkhand | Adityapur, Saraikela-Kharsawan District | Jharkhand Industrial Area Development Authority (JIADA) | 82.49 | 97.88 | 41.48 | 20.74 | 34 |
| 9 | Kerala | Kakkanad, Ernakulam District | Kerala Industrial Infrastructure Development Corporation (KINFRA) | 66.87 | 35.06 | 11.89 | 10.00 | 9 |

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|-------|--------------------|--|--|--------------|---------------------------------|-----------------------|--------------|----------------------------|
| | | | | | Approved Project Cost | Approved Grant-in-aid | GIA released | |
| 10 | Madhya Pradesh | Badwai-Bhopal | Madhya Pradesh State Electronics Development Corporation Ltd.(MPSEDC) | 50 | 47.19 | 20.86 | 16.69 | 28 |
| 11 | Madhya Pradesh | Purva-Jabalpur | Odisha Industrial development Corporation (IDCO) | 40 | 38.57 | 17.76 | 13.88 | 63 |
| 12 | Odisha | Infovalley, Bhubaneswar Industrial Area, Khurda District | ELCINA Electronics Manufacturing Cluster Pvt. Ltd (EEMCPL) | 203.37 | 200.76 | 93.09 | 46.55 | 7 |
| 13 | Rajasthan | Salarpur Industrial Area, Khushkera, Bhiwadi | Rajasthan State Industrial Development & Investment Corporation Ltd. (RIICO) | 50.3 | 46.09 | 20.24 | 11.13 | 21 |
| 14 | | Karoli Industrial Area, Bhiwadi, District-Alwar | Telangana State Industrial Infrastructure Corporation (TSIIC) | 121.51 | 29.29 | 11.49 | 6.34 | 37 |
| 15 | Telangana | E-city, Hyderabad | TEGNA Electronics Pvt. Ltd. (TEPL) | 603.52 | 667.6 | 252.42 | 124.32 | 44 |
| 16 | | Maheshwaram, Ranga Reddy | West Bengal Electronics Industry Development Corporation Limited (WEBEL) | 310.70 | 436.97 | 138.6 | 27.72 | 29 |
| 17 | Uttar Pradesh | Ecotech-VI Industrial Area, Greater Noida | Mysore ESDM Cluster | 99.41 | 115.32 | 50 | 22.50 | 7 |
| 18 | West Bengal | Falta, South 24 Parganas District | Deogiri Electronics Cluster Private Limited | 58.04 | 58.86 | 25.64 | 12.82 | - |
| 19 | West Bengal | Naihati, North 24 Parganas district | MCCIA Electronic Cluster Foundation | 70 | 58.31 | 25.7 | 12.85 | - |
| 20 | Karnataka (CFC) | Hebbal Industrial Area, Mysore | | 1.50 | 48.53 | 32.31 | 25.85 | N.A |
| 21 | Maharashtra (CFCs) | Shendra Industrial Area, Aurangabad District | | 1.98 | 41.09 | 29.29 | 22.55 | N.A |
| 22 | | Pimpri Industrial Area, Pune | | 0.61 | 67 | 50 | 32.07 | N.A |

Annexure-II

| S.No. | State | Location | Implementing Agency | Area (Acres) | Financial Outlay (INR in crore) | | | No. of units allotted land |
|-------|----------------|---|--|--------------|---------------------------------|-----------------------|--------------|----------------------------|
| | | | | | Approved Project Cost | Approved Grant-in-aid | GIA released | |
| 1 | Andhra Pradesh | Kopparthy Village, Kadapa Y.S.R District | Andhra Pradesh Industrial Infrastructure Corporation Ltd. (APIIC) | 540 | 748.76 | 350.00 | 105.00 | 3 |
| 2 | Haryana | Industrial Model Township (IMT) Sohna, Nuh District | Haryana State Industrial and Infrastructure Development Corporation (HSIIDC) | 500 | 662.08 | 331.04 | 20.00 | 1 |
| 3 | Maharashtra | Ranjangaon, Phase-III, Pune | Maharashtra Industrial Development Corporation (MIDC) | 297.11 | 492.85 | 207.98 | - | 1 |

| State/UT | Export in Million USD | | | | |
|---------------------------------------|-----------------------|-----------------|-----------------|-----------------|-----------------|
| | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
| ANDAMAN & NICOBAR | 0 | 0 | 0 | 0 | 0 |
| ANDHRA PRADESH | 127 | 194 | 295 | 285 | 375 |
| ARUNACHAL PRADESH | 0 | 0 | 0 | 0 | 0 |
| ASSAM | 0 | 0 | 1 | 4 | 4 |
| BIHAR | 1 | 1 | 3 | 2 | 7 |
| CHANDIGARH | 4 | 8 | 17 | 19 | 11 |
| CHATTISGARH | 1 | 1 | 1 | 1 | 3 |
| DADRA & NAGAR HAVELI | 18 | 15 | 16 | 13 | 21 |
| DAMAN & DIU | 3 | 2 | 2 | 3 | 1 |
| DELHI | 253 | 403 | 782 | 513 | 799 |
| GOA | 91 | 132 | 162 | 168 | 212 |
| GUJARAT | 359 | 421 | 503 | 599 | 900 |
| HARYANA | 315 | 358 | 331 | 331 | 418 |
| HIMACHAL PRADESH | 39 | 51 | 48 | 49 | 69 |
| JAMMU & KASHMIR | 0 | 0 | 0 | 0 | 0 |
| JHARKHAND | 4 | 1 | 1 | 1 | 2 |
| KARNATAKA | 1685 | 1890 | 2212 | 2267 | 3898 |
| KERALA | 80 | 87 | 93 | 92 | 91 |
| LAKSHADWEEP | 0 | 0 | 0 | 0 | 0 |
| MADHYA PRADESH | 21 | 22 | 28 | 27 | 21 |
| MAHARASHTRA | 1244 | 1561 | 1713 | 1632 | 2096 |
| MANIPUR | 0 | 0 | 0 | 0 | 0 |
| MEGHALAYA | 0 | 0 | 0 | 0 | 0 |
| MIZORAM | 0 | 0 | 0 | 0 | 0 |
| NAGALAND | 1 | 0 | 0 | 1 | 0 |
| ODISHA | 1 | 0 | 10 | 0 | 1 |
| PUDUCHERRY | 12 | 15 | 14 | 17 | 18 |
| PUNJAB | 17 | 25 | 65 | 47 | 71 |
| RAJASTHAN | 74 | 69 | 47 | 48 | 71 |
| SIKKIM | 0 | 0 | 0 | 0 | 0 |
| TAMIL NADU | 1186 | 1522 | 1687 | 1664 | 1876 |
| TELANGANA | 168 | 168 | 198 | 250 | 368 |
| TRIPURA | 0 | 0 | 0 | 00 | 0 |
| UNSPECIFIED | 29 | 13 | 16 | 22 | 21 |
| UTTAR PRADESH | 471 | 1621 | 3162 | 2842 | 3792 |
| UTTARAKHAND Total | 0 | 0 | 0 | 0 | 44 |
| UTTARANCHAL | 41 | 44 | 76 | 34 | 0 |
| WEST BENGAL | 149 | 204 | 219 | 160 | 469 |
| Total Export of All States/UTs | 6,393 | 8,829 | 11,701 | 11,093 | 15,660 |
| India's Total export | 3,03,526 | 3,30,078 | 3,13,361 | 2,91,808 | 4,22,004 |

Source: Directorate General of Commercial Intelligence and Statistics (DGCI&S)
