

4.0 Capacity Building

4.1 Introduction

Capacity building is an intense activity closely linked to development of human capabilities to perform functions and processes for realisation of goals, establishment of infrastructure for ensured throughput, strategies for achieving targets and mobilisation of resources. The capacity building activity is an essential requirement for managing transformations in all fields.

To cater to the increased demand in the current areas of space-based applications, including supporting a few national flagship programmes of Government of India, it is required to increase the number of satellites and launch vehicles.

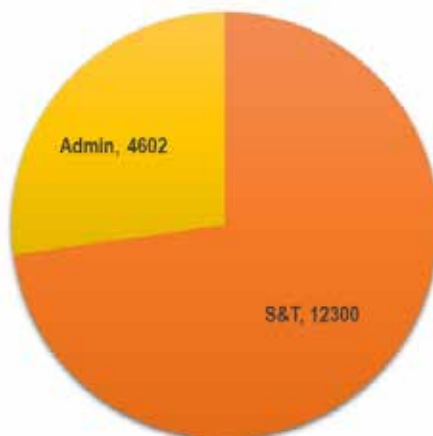
Towards meeting the set goals, the organisational capabilities will have to be enhanced in tune with the increased level of operation. A host of new developments in fields of space transportation, space infrastructure, space applications and scientific exploration are contemplated. ISRO is developing systematic capacity enhancement plans at individual, organisational, institutional, industrial and user / community levels.

4.2 Human Resources Capacity Enhancement

4.2.1 Internal Resources

The total approved sanctioned strength of the department as on 01.03.2017 was 16,902, out of which 12,300 are in Scientific and Technical (S&T) category and 4602 is under administrative category.

Sanctioned Strength as on 01.03.2017



Proposals for phased augmentation of human resources for DOS/ISRO Centres/Units, in tune with the programmatic targets laid down, is under process.



The existing welfare measures such as housing, medical, canteen, schooling for children, etc., are extended to the employees of ISRO under various approved institutional schemes. Life insurance coverage from accidents in the work place is provided to the employees by schemes such as VISWAS and SAFE, a special scheme for assistance to families in exigency, at a relatively low premium through internal trusts.

Key importance is laid to the competency requirements of the individuals, required for contributing effectively and efficiently towards the realisation of the organisational goals and resulting achievements. Hence, stringent recruitment process is adopted to ensure that quality personnel are inducted into the system and greater importance is attached towards continuous development of the human resources periodically in tune with the programmatic requirements.

Centralised recruitment of Scientist/Engineers with degree in engineering is continued during the year. Online applications are invited through ISRO website and selections/inductions are completed through the process of written test and interview on an all India basis. Also, Centralised recruitment process is continued for the recruitment of Officers in Administrative area, Office Assistants and Junior Personal Assistants during the year. Further, specialised recruitments, based on the requirements of the Centres, are made by respective Centres/Units.

In order to induct quality manpower into the system, the campus recruitments at IITs has been revived and selections are under process.

ISRO/DOS has been absorbing graduates from the Indian Institute of Space Science and Technology (IIST) on successful completion of the B.Tech programme, meeting the benchmark set. The sixth batch of students, who were admitted to B. Tech during September 2013 at IIST have graduated during June 2017. A total of 101 eligible students were inducted in all ISRO/DOS Centres/Units.

ISRO has established a scheme of 'Live Register', wherein a PG degree holder from foreign academic institution with minimum of two years of research experience in scientific and technical areas relevant to space and a PhD holder in specialised areas of studies in engineering/technology/science relevant to the Indian Space programme can submit their dossiers to ISRO. The candidature is reviewed depending on the suitability and recommendations of Centres. Till date, opportunity has been extended to more than 200 candidates.

4.2.1.1 Internal Training

Training and Development activities are envisaged through both Centralised and Decentralised systems. The scheme of Centralised Induction Training Programme for newly joined scientists/engineers, introduced during 2002, is being continued. The training programme is aimed at introducing the newly recruited engineers to the ISRO systems by providing necessary exposure to the ISRO programmes, achievements, rules, regulations, systems, processes, etc. Similar Centralised Induction Training programmes are being Provided to Office Assistants and Junior Personal Assistants in Administrative areas, conducted by different Centres/Units on a rotational basis.



All the officers in Purchase and Stores area have been sponsored for a specialised training programmes at National Institute of Financial Management, Faridabad on Public Procurement Policies.

Customised, exclusive management development training programmes for middle level S&T personnel were organised at Administrative Staff College of India (ASCI), in three batches of 25 each.

Annual calendar is drawn for organising Centralised Structured Training Programmes (STPs) to deal with the training on core technical subjects. Middle level engineers from various Centres engaged in relevant activities are training through these STPs organised by the different Centres, as per the annual STP calendar.

Space Studies Programme (SSP) 2017 for young Scientists/Engineers organised by International Space University (ISU) at Cork Institute of Technology, Ireland during June-August, 2017 was continued during the year and six Scientists/Engineers from different Centres/Units attended the programme. Additionally, ISRO participated in the Southern Hemisphere Space Studies Programme, an abridge version of SSP of ISU during 2017 and three Scientists/Engineers from different Centres/Units attended the programme during January-February 2017.

As a part of executive training, senior executives were trained at Indian Institute of Management, Ahmedabad (IIM-A). As the need of the hour, in order to strength in the cyber and network security, training programmes and workshops on Cyber Security and ethical hacking were organised for officials from across the Centres involved in ensuring IT security.

Based on the functional and specialised requirements, decentralised training programmes are administered at respective Centres/Units of ISRO/DOS at various intervals.

4.2.1.2 Apprentice Training

Under the Apprentices Act, 1961, training has been imparted to 3,226 apprentices in Centres/Units of the Department in the Technical and Commercial Trades.

4.2.1.3 Reservation in Services

a) Scheduled Caste and Scheduled Tribes

The Department has been observing the guidelines for recruitment, promotion and the welfare of Scheduled Castes and Scheduled Tribes, Table-I indicates the status of representation of persons belonging to Scheduled Castes and Scheduled Tribes.

b) Differently Abled Persons

Position regarding appointed Differently Abled Persons is given in Table - II

c) Ex-Servicemen

The status of representation of Ex-servicemen is given in Table – III



d) Other Backward Classes (OBCs)

3,922 persons belonging to Other Backward Classes are employed at present. Out of this, 152 persons have been appointed during the year.

4.2.1.4 Women Employees

There are 1,978 Women Employees in the Scientific and Technical categories and 1,210 Women Employees in Administrative categories in the Department as per the details given in Table - IV. They represent nearly 20% of personnel in the Department.

4.2.1.5 Joint Consultative Machinery (JCM)

The scheme of Joint Consultative Machinery (JCM) of the Department continued to function satisfactorily.

4.2.1.6 Conferences and Workshops**a) National Conference for ISRO Women Employees**

National Conference for ISRO Women Employees was organised at ISRO Satellite Centre (ISAC) at Bengaluru during March 2017. Women employees from various ISRO/DOS establishments participated in the Conference as delegates and presented papers.

b) International Day of Yoga

The United Nations has declared June 21 as the 'International Day of Yoga' on the topic of 'Yoga for Harmony and Peace'. As part of the celebrations, a mass yoga practice/demonstration was organised in ISRO/DOS establishments.

c) Dr. B. R. Ambedkar's Birth Anniversary Celebrations

The 126th Birth Anniversary of Bharat Ratna Dr. Bhimrao Ramji Ambedkar was celebrated in DOS/ISRO establishments in 2017.



Table - I: Status Of Scheduled Caste / Scheduled Tribe Personnel

Sl.No	Centre / Unit	Total Strength of Employees 2017-18	Strength of SC Employees 2017-2018	Strength of ST Employees 2017 -2018
1	DOS / ISRO HQ	393	54	21
2	VSSC	4467	344	66
3	ISAC	2538	287	94
4	SDSC-SHAR	1971	308	122
5	SAC & DECU	1977	182	125
6	LPSC	1211	135	25
7	NRSC	834	102	35
8	ISTRAC	434	67	14
9	MCF	318	40	16
10	ADRIN	162	19	5
11	IIRS	113	13	5
12	PRL	233	9	1
13	SCL	585	108	6
14	NARL	63	9	1
15	NESAC	40	2	4
16	IIST	97	3	0
17	IPRC	636	132	10
TOTAL		16072	1814	550



Table - II: Status of Differently Abled Persons

Sl. No	Centre / Unit	Total Strength of Employees 2017-2018	Strength of Differently Abled Persons	Classification of Employees with Disabilities			
				Deaf & Dumb	Blind	Partially Blind	Orthopedically Handicapped
1	DOS / ISRO HQ	393	8	0	0	1	7
2	VSSC	4467	100	20	0	12	68
3	ISAC	2538	63	13	7	1	42
4	SDSC-SHAR	1971	48	2	2	0	44
5	SAC & DECU	1977	39	5	3	0	31
6	LPSC	1211	47	25	0	0	22
7	NRSC	834	20	2	0	0	18
8	ISTRAC	434	10	1	0	0	9
9	MCF	318	4	1	0	0	3
10	ADRIN	162	3	0	0	0	3
11	IIRS	113	6	0	1	0	5
12	PRL	233	4	1	0	0	3
13	SCL	585	3	0	0	0	3
14	NARL	63	1	0	0	0	1
15	NESAC	40	1	0	0	0	1
16	IIST	97	1	0	0	0	1
17	IPRC	636	13	0	0	0	13
TOTAL		16072	371	70	13	14	274



Table - III: Status Of Representation Of Ex-Servicemen

Sl. No	Centre / Unit	Total Number of Employees in Group - C 2017-2018	Total Number of Ex-Servicemen in Group - C 2017-2018
1	DOS / ISRO HQ	56	5
2	VSSC	785	93
3	ISAC	327	10
4	SDSC-SHAR	588	25
5	SAC & DECU	210	3
6	LPSC	181	35
7	NRSC	82	1
8	ISTRAC	35	3
9	MCF	51	3
10	ADRIN	25	1
11	IIRS	15	1
12	PRL	22	0
13	SCL	58	0
14	NARL	5	0
15	NESAC	0	0
16	IIST	0	0
17	IPRC	108	17
TOTAL		2548	197



Table - IV: Women Employees in DOS / ISRO

Sl. No	Centre / Unit	Total Number of Employees 2017-2018	Number of Women Employees 2017-2018	
			Scientific & Technical Staff	Administrative Staff
1	DOS / ISRO HQ	393	26	109
2	VSSC	4467	520	443
3	ISAC	2538	544	129
4	SDSC-SHAR	1971	127	129
5	SAC & DECU	1977	260	82
6	LPSC	1211	80	108
7	NRSC	834	146	56
8	ISTRAC	434	70	35
9	MCF	318	32	11
10	ADRIN	162	29	10
11	IIRS	113	17	8
12	PRL	233	19	18
13	SCL	585	35	16
14	NARL	63	5	7
15	NESAC	40	8	4
16	IIST	97	18	6
17	IPRC	636	42	39
TOTAL		16072	1978	1210

