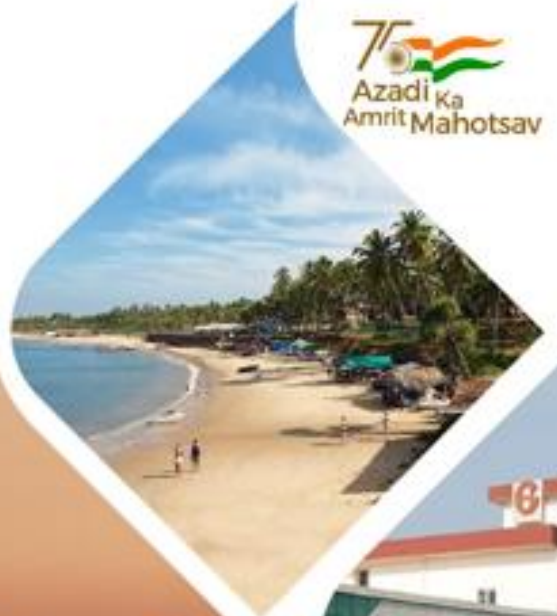




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Azadi Ka
Amrit Mahotsav



ECONOMIC SURVEY

2021-22



Directorate of Planning, Statistics & Evaluation,
Porvorim, Goa





Government of Goa

ECONOMIC SURVEY

2021-22

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The compilation of this book was carried out by a team of officials of the Directorate of Planning, Statistics and Evaluation who have put in lot of hard work and dedication for last several months for bringing out this publication.

The Directorate of Planning, Statistics and Evaluation, has made an effort to portray a true picture of the State's economy through this publication. Suggestions from readers are welcome for future improvements of this annual publication.

Date: 29/03/2022

Director

Place: Porvorim-Goa

Directorate of Planning, Statistics &Evaluation

CONTENTS

Sl. No.	Chapter	Page. No.
1	Overview	1
2	Demography	6
3	State Income	14
4	Public Finance	24
5	Institutional Finance	31
6	Agriculture and Allied Activities	39
7	Industries	57
8	Infrastructure	62
9	Civil Aviation	77
10	Rural Development	88
11	Tourism	95
12	Swayampurna Goa Programme	99
13	Science, Technology & Environment	104
14	Sustainable Development Goals	116
15	Unique Identification (UID) / Aadhaar	121
16	Social Sectors	128
17	Scientific Research & Innovation	159

ANNEXURES

No	Annexures	Page No
1	State wise distribution of Population-Census 2011	164
2	Taluka wise Total Workers during Population Census 1961 to 2011	165
3	State wise Literacy rate - 2011 Census	166
4	State wise Sex Ratio- 2011 Census	167
5	State wise density of Population- 2011 Census	168
6	Taluka wise density of population of the State- 2011 Census	169
7	State-wise distribution of households availing banking facilities	170
8	Gross State Domestic Product (GSDP) at market price by industry of origin from period 2016-17 to 2020-21 (Q) at Current Prices	171
9	Gross State Domestic Product (GSDP) at Market Price by industry of origin from period 2016-17 to 2020-21 (Q) at Constant Prices (Base Year 2011-12)	172
10	Sector wise % Distribution of Gross State Value Addition (GSVA) at Market Price by Industry of origin from period 2016-17 to 2020-21 (Q) at Current Prices	173
11	Sector wise % Distribution of Gross State Value Addition (GSVA) at Market Price by Industry of origin from period 2016-17 to 2020-21 (Q) at Constant Prices	174
12	% Growth over the previous year Gross State Domestic Product (GSDP) at Market Price by Industry of origin from period 2016-17 to 2020-21 (Q) at Current Prices	175
13	% Growth over the Previous Year Gross State Domestic Product (GSDP) at Market Price by Industry of origin from period 2016-17 To 2020-21 (Q) at Constant Prices (Base Year 2011-12)	176
14	Net State Domestic Product (NSDP) at market price by industry of origin from period 2016-17 to 2020-21 (Q) at current prices	177
15	Net State Domestic Product (NSDP) at market price by industry of origin from period 2016-17 to 2020-21 (Q) at Constant Prices (Base Year 2011-12)	178
16	Sector-wise % distribution of Net State Value Addition(NSVA) at market price by industry of origin from period 2016-17 to 2020-21 (Q) at current prices	179
17	Sector-wise % distribution of Net State Value Addition(NSVA) at market price by industry of origin from period 2016-17 to 2020-21 (Q) at constant prices (Base Year 2011-12)	180
18	% Growth over the previous year Net State Domestic Product (NSDP) at market price by industry of origin from period 2016-17 to 2020-21 (Q) at current prices	181
19	% Growth over the previous year Net State Domestic Product (NSDP) at market price by industry of origin from period 2015-16 to 2019-20 (Q) at constant prices (Base Year 2011-12)	182
20	Gross State Domestic Product by Sectors at Current Prices	183

ANNEXURES

No	Annexures	Page no
21	Gross State Domestic Product by sectors at constant prices	183
22	Net State Domestic Product by sectors at current prices	184
23	Net State Domestic Product by sectors at constant prices	184
24	The performance of cooperatives societies from 2019-2021	185
25	The details of category wise societies as on 31-03-2021	186
26	Marine fish production of goa for the period from 2005 to 2021 (Provisional)	187
27	Inland fish production of goa for the period from 2005 to 2021 (Provisional)	188
28	Roads & Bridges	189
29	Water supply scheme (Urban/Rural)	198
30	Income and Expenditure of KTCL	201
31	Income and expenditure of the village panchayats for the year 2020-21	202
32	Year wise distribution of domestic and foreign tourist arrivals	203
33	Taluka - wise no. of Swayampurna Mitras	204
34	Details of the training and review meetings held under Swayampurna Goa Program	205
35	Department-wise no. of activities conducted in rural & urban areas	206
36	Sector-wise no. of beneficiaries under Swayampurna Goa Programme	207
37a	Grant-in-aid for researchers in the field of science & technology	208
37b	Grant-in-aid to conduct seminars, workshops, awareness programmes, exhibitions & providing financial assistance to teaching faculties, researchers and subject specialty experts	209
38	Financial assistance in form of grant-in-aid to organizations under special pattern of assistance during 2021-22	210
39	The initiatives taken up by GSInC during the year (2021-2022)	211
40	SDG India Index – comparison	212
41	SDG Urban Index & Dashboard 2021-22	213
42	SDG Urban City Index 2021	215
43	Expenditure on research as % to gross state domestic product	216
44	Conferences organized during 2020-21 & 2021-22	217
45	Papers presented during 2020-21 & 2021-22	217
46	No. of Patents obtained during 2020-21 & 2021-22	217
47	Utilization of funds under R&D during 2020-21 & 2021-22	218
48	Manpower engaged in R&D during 2020-21 & 2021-22	218

CHAPTER 1

OVERVIEW

Goa, situated on the west coast of India, is one of the most delightful states of India. With its tropical climate, Goa is a tourist destination for all seasons. Goa is a treasure trove of culture, music, dances and art forms that can be enjoyed during local festivals and celebrations.

Most of the people think that Goa is full of beaches, but Goa has covered one-third of forests. Goa has rich flora and fauna because it lies very close to the North Western Ghats rainforests, one of the rare biodiversity hotspots of the world.

Rice with fish curry (xit koddi) is the staple diet in Goa. Goa's seven major rivers are the Zuari, Mandovi, Terekhol, Chapora, Galgibag, Kumbarjua canal, Talpona and the Sal. The Zuari and the Mandovi are the most important rivers.

Demography

As per 2011 Census population of Goa is 14,58,545 of which male and female are 739,140 and 719,405 respectively. The overall increase in the population when expressed in terms of percentage over the population of the earlier decade variation has been observed. During the year 2001 and 2011 the percentage of people living in rural area decreased from 50.24% to 37.83%. It is observed that from 1961 Census till 2011 Census the density has been increased by 141.7%.

Macroeconomic Perspective

The GSDP for the State of Goa at constant (2011-12) prices for the year 2020-21 (Quick Estimates) is estimated

at ₹ 53959.86 crore as against ₹ 53099.57 crore in the year 2019-20 (Provisional Estimates) thereby reflecting a marginal growth of 1.62 per cent as against 0.07% in 2019-20 (P). During the year 2020-21 (Quick Estimates), primary sector accounted for 5.24 per cent, secondary sector for 55.04 per cent and tertiary sector accounted for 39.72 per cent.

Per Capita Income depicts upward trend and is estimated from ₹ 415411 in 2016-17 to ₹ 484326 in 2019-20 (P) and ₹ 504430 in 2020-21 (Q).

Public Finance

As per Budget Estimates for the year 2021-22, the revenue receipts are estimated to be ₹ 14787.50 crore. The revenue surplus is estimated to be ₹ 5846.51 crore (BE 2021) and the fiscal deficit is estimated to be ₹ 2650.53 crore.

The capital receipts are estimated at ₹ 3631.84 crore as against ₹ 3236.43 crore (RE 2021-21) showing an increase of 12.22%. The internal debt of the State is estimated at ₹ 3124.30 crore.

There has been an increasing trend of expenditure over the years. In 2021-22 (BE), the revenue expenditure is estimated at ₹ 14729.03 crore with a growth rate of 15.19% as compared to 2020-21 (RE).

Government of India has released an amount of ₹ 2203.63 crore to the consolidated funds of the State and ₹ 1568.64 crore through SPV account during the year 2021-22.

Institutional Finance

46 Banks are operating in the State of which 12 Public Sector Banks, 17 Private Sector Banks, 14 Co-operative Banks and 3 Small Finance Banks comprising of 780 banking offices.

The Credit Deposit ratio in Goa is 32.70 as on September 2021. The Deposits and Credit mobilized by the banks, as on 30th September 2021 were ₹ 93618.00 crore and ₹ 30609.13 crore respectively.

There are 5203 Co-operative Societies registered in the State for welfare of people. The number of Co-operative Societies have increased by 251 as on March 2021 as compared to 2019.

Agriculture & Allied activities

Government aims to double the farmer's income by 2022 for which various beneficiary oriented programmes/schemes are implemented.

As per provisional estimates of State income, the share of agriculture and allied sectors in Gross Value Added (GVA) at current prices is ₹ 550600 lakh for the year 2021-22(A) as against ₹ 496003 lakh for the year 2019-20(P).

Quepem Taluka is included under Western Ghat Development programme to benefit the farmers. Additional crops added to avail assistance under "Assured Price" scheme to encourage the farmers to go for vegetable cultivation. Government approved to include GST component of Agriculture machineries in the standard cost of Agriculture machineries while calculating subsidy on Agriculture machineries, thus benefitting farmers financially. Farmers were promoted for cultivation of marigold & turmeric to reduce the dependency on neighboring States.

District Society for Prevention of Cruelty to Animals has been notified in both Districts of Goa. The State has been declared as the First Rabies Controlled State in the Country to control rabies disease in the State through the Short Scheme of Mission Rabies.

The Annual Estimated Milk production is 60138.93 tonnes, Egg Production is 374.79 lakh and Meat production is 6051.69 tonnes as per Integrated Sample Survey. 2146 KCC Cards have been sanctioned an amount of ₹ 2131.81 lakh to dairy farmers.

A step has been taken by involving the local fishermen/ fish farmers in boosting the fish production scientifically. Potentials in the aquaculture sector have contributed significantly towards livelihood developments of the Fish farmers in the State.

As part of the 68th All India Cooperative Week 2021-22 on the theme prosperity through Co-operation, a weeklong programme has been organised to disseminate the Cooperative message to a large number of people from 14th November, 2021 to 20th November, 2021.

Industries

One of the important factors for Sustainable economic growth is an accelerated development of the industrial sector. The Goa Investment Promotion Board has granted approval to 219 projects in Principle with total investment of ₹ 16074.80 crore with employment potential of 39241 persons. Common Facility Centre (CFC) at Verna Industrial Estate Salcete, Goa will be setup by Konkan maritime cluster for a project cost ₹ 1621.57 lakh.

The efforts are being taken up to improve the sector-wise exports of State and the issues /suggestions outlined in the export strategy.

EDC is the Nodal agency to implement the “Debt Relief Scheme for mining affected borrowers of Financial Institution”. The cumulative subsidy sanctioned by EDC is ₹ 10,841.79 lakh to 4,696 applications under the scheme.

Mining Industry

The royalty collected on extraction of major mineral is ₹ 112.04 crore and minor minerals is ₹ 4.08 crore for the financial year 2021-22 (till 31st January 2022).

An amount of ₹ 40.00 lakh has been collected and transferred towards National Mineral Exploration Trust (NMET), New Delhi for the period 2021-22 (till December, 2021).

Road Transport

Department of Transport, Government of Goa has been awarded the SKOCH SILVER AWARD for the ‘online issuance of permits’ for the year 2021.

The number of vehicles registered during 2021-22 (Up to 31st December 2021) is 31498 nos. Road Accidents database software (iRAD) was launched on 13/10/2021.

Vendors has been empanelled for both Digital Fare Meter & Vehicle Location Tracking Device (VLTD). VLTD project is done in 2 parts: (a) Taxis are fitted with Digital Fare Meter within built tracking devices. (b) Other public service vehicles are being fitted with only VLTD’s. An amount of ₹ 66.00 lakh has been disbursed to 33 beneficiaries during the year 2021-22 (upto December 2021) under the scheme Goa State Interim Compensation to Road Accident Victims, 2020.

Urban Development

Under Shelter for Urban Homeless, 09 Urban Homeless women have been provided Shelter at Mapusa and 4 Urban

Homeless men have been provided Shelter at Verna by the NGO empanelled with Goa State Urban Development Agency (GSUDA).

PM SVANidhi is a special micro credit facility for street vendors. Under the scheme 2507 street vendors have been identified.

Power

Any Time Payment Machine (ATPM) has been installed in association with its BBPS partner, TJSB Bank at its HO at Panaji for 24x7 payments of Electricity Bills on all the days of the year. There is plan to install similar ATPM machine across various locations in the state for the convenience of the public.

The capacity of the 24x7 Call Centre of the Electricity Department located at Kadamba Plateau has been enhanced during the 4 months of monsoon season for providing better and timely services to its consumers.

Civil Aviation

Greenfield Airport at Mopa in Pernem Taluka will be operational in addition to Dabolim Airport in Mormugao Taluka. With two operational airports, air connectivity to Goa will get increased tremendously connecting the State to various parts of India as well as world over. Goa is expected to emerge as gateway for international flights coming to India.

The 66% construction of Mopa airport has been achieved and will be completed in phased manner.

Rural Development

The website www.goasbazaar.org has been launched for all SHG members to show case their products for online selling. 150 New Self Help Groups (SHGs) were formed, while 135 Self Help Groups revived for building gainful

self-employment and skilled wage employment opportunities and 21 new Village Organizations were formed. Revolving Funds to 478 SHGs, Start-up funds to 41 Village Organizations and Community Investment Funds to 89 Village Organizations was provided during the financial year 2021-22.

Tourism

Goa has been adjudged as a runner-up by India Today Group for the Best Adventure Destination award in the adventure category for Bunjee Jumping Mayem Lake, Bicholim and Runner-up for the best beaches of Ashvem Beach, North Goa and for Coastal Destination Award in the beach & Coastal category.

The International Charter Support scheme (waiver of landing fees) 2021 is provided to encourage more international chartered flights in the State, and also to reduce the burden on chartered flights reimbursement of a part of parking and landing fees at Dabolim International Airport, has been notified to a maximum of ₹ 1.00 lakh on the landing charges for international charters.

Scheme to provide financial assistance to the Scheduled Tribe community for skill development for undertaking tourism related activities and for development of tourism infrastructure in their areas has been formulated in order to undertake tourism related activities for the benefits and overall development of tribal community in the State of Goa.

Swayampurna Goa Programme

To achieve target of the programme i.e. “Swayampurna Goem”; 237 Government Officers have been designated as Swayampurna Mitras for 191 village panchayats & 14 municipalities. They are visiting every Saturday’s or Sunday’s in their respective village panchayats/

municipalities to identify bottle neck & potential for implementation of beneficiary oriented schemes.

In recognition of commendable work under the Programme, best performing Swayampurna Mitras, best Panchayats/ Municipality and beneficiaries were felicitated on the occasion of 60th liberation day of Goa i.e. on 19th Dec 2021 in the hands of Hon’ble Prime Minister Shri Narendra Modi ji.

“Know Your Scheme” services under Goa online portal with the aim of “Less Government and more governance” in assisting the public by providing Government benefits at their door steps has been launched.

Science and Technology

To achieve Objective of popularization of science and Innovation and also to bring about scientific temperament among the young generation, various Science and Technology (S&T) based activities/schemes are undertaken by the Department of Science and Technology and Waste Management (DS&T&WM) with the help of line departments in safe and scientific manner.

Goa State Council for Science and Technology (GSCST) has obtained Geographical Indication (G.I.) for Feni and thereafter for Khola Mirchi, Harmal chilli, Goan Khaje and Mandoli Banana.

Forest

As per the “India State of Forests Report (ISFR), 2021” the forest cover of the State is 2,244.21 sq km which is 60.62% of the State’s geographical area. Forest cover has increased by 6.72 sq km as per ISFR, 2021 compared to the previous assessment reported in ISFR 2019.

Sustainable Development Goals

The State has elevated in the composite score from 7th position to 4th position in comparison from SDG India Index 2.0 (2019-20) to SDG India Index 3.0 (2020-21) publication by securing 72 score. It is remarkable to note that Goa is the only State in the country to achieve 100 index score in the SDG-6: Clean water & sanitation and SDG-7: Affordable & clean energy, thereby securing 1st position.

The city of Panaji scored an average score of 71.86, thereby securing 6th position in the SDG Urban Index & Dashboard 2021-22.

Scientific Research & Innovation

In the State, State Government Institutions namely Goa University, Goa Engineering College, Pharmacy College, Higher Education, Science Technology, Goa Medical College, Dental College, etc., Central Government Institutions namely, IIT, NIT, National Institute of Oceanography, ICAR, ICMR, CSIR, NCPORE, etc., Public Sector Undertaking namely Goa Ship Yard Limited, Private Institutions namely BITS Pilani Goa Campus, Private Sector Industries namely Siemens, Unicem, IFB, Glenmark, Bosch, Lupin, etc., are contributing a lot towards Research Development & Innovation.

CHAPTER 2

DEMOGRAPHY

Demography is a statistical study of human populations. It examines the size, structure and movements of populations over space and time. Births, deaths and migration are the 'big three' of demography, jointly producing population stability or change.

Census provides valuable information for planning and formulation of policies. The common variables gathered in demographic research include age, sex, income level, race, employment, location, homeownership and level of education. Population growth or decline depends upon fertility, mortality and migration.

The first Census in India was conducted in the year 1872. In 1881 a Census was taken for the entire country simultaneously. Since then, Census has been conducted every ten years, without a halt. The Indian Census is the most credible source of information on demography of the country. 2011 Census, is the 15th National Census in the Country and the third for Goa after it attained Statehood. The delimitation of constituencies is also done on the basis of demographic data thrown up by the census. The next population Census is in due.

Population

Population of a place goes on changing over a period of time. The net difference of the births and deaths is the increase and this is called natural increase of population. If a number of persons move in or move out from the place there is an increase or decrease in population and is called the migration. Growth rate of population is as the term, denotes, the rate at which the population of a given

area is growing over a given period of time. The overall increase in the population when expressed as a percentage over the population of the earlier decade is spoken of as the percentage decadal variation. As per 2011 Census population of Goa is 14,58,545 of which male and female are 739,140 and 719,405 respectively. State wise distribution of population as per 2011 Census is given in Annexure - 1. The decadal variation of the population since the year 1960-2011 is given in Table No. 2.1.

Table No.2.1
Year wise distribution of population since 1960-2011

Year	Population	Decadal Variation	Decadal Growth (%)
1960	589997	42549	7.77
1971	795120	205123	34.77
1981	1007749	212629	26.74
1991	1169793	162044	16.08
2001	1347668	177875	15.21
2011	1458545	110877	8.23

Source: Office of the Registrar General and Census Commissioner, India

As can be seen from Table No. 2.1, population of the State during the year 1960 was 5,88,997, which increased to 7,95,120 in the year 1971 showing a decadal growth of 34.77 %. During the next three decades from 1981 to 2001 the population growth saw a descending order of 26.74%, 16.1% and 15.21% respectively. The population growth as per 2011 census was just 8.23% with net addition of 1,10,877 persons to population of Census 2001.

Rural and Urban Population

An urban area is a human settlement with high population density and corresponding infrastructure. Urban

areas are created through urbanization and are categorized by urban morphology as cities, towns, conurbations (the merging of several towns), or suburbs. In contrast, rural areas refer to areas with low population density, such as villages and hamlets.

Historically, urban revolution led to the creation of civilizations with modern urban planning that along with other human activities, such as exploitation of natural resources leads to human impact on the environment. The word "rural" covers all population, housing, and territory not included within an urban area. Whatever is not urban is considered rural. Rural and Urban composition of population in the State from the year 1961-2011 is given in Table No.2.2.

Table No. 2.2
Rural and Urban composition population from 1961 – 2011

Year	Rural	%	Urban	%	Total (R+U)
1961	502668	85.20	87329	14.80	589997
1971	591877	74.44	203243	25.56	795120
1981	684964	67.97	322785	32.03	1007749
1991	690041	58.99	479752	41.01	1169793
2001	677091	50.24	670577	49.76	1347668
2011	551731	37.83	906814	62.17	1458545

Source: Office of the Directorate of Census Operations Goa. District Census Handbook, Goa, (1961-1981) and (1991-2011).

As can be seen from the Table 2.2 during the year 1961, 85.20% of the population in the State lived in rural areas and the remaining 14.80% of the population resided in urban areas. During the year 2001 and 2011 the percentage of people living in rural area decreased from 50.24% to 37.83% respectively. As per 2011 Census, 9,06,814 people resides in urban which

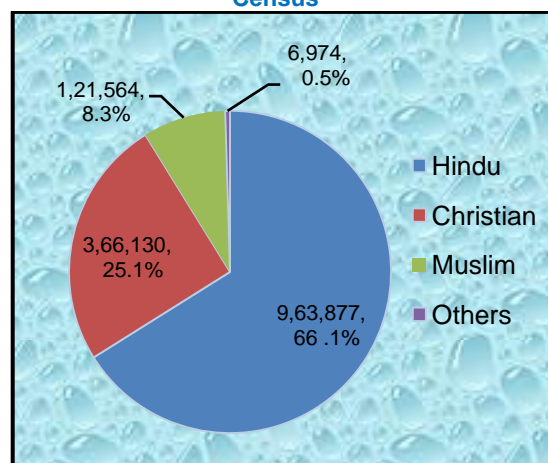
accommodates to 62.17% of the total population of the State, which increased from 87,329 (14.80%) person during the year 1961. The trend of living in rural areas started moving towards urbanization since the year 1971.

Population by Religious Community

As can be seen from Table No.2.3, religion wise distribution of population in the state since 1960 to 2011. The population of Hindus increased by 6,10,351 from 3,53,526 during 1961 to 9,63,877 in the year 2011. Christian population have increased marginally during 1960 to 2011 with addition of 1,41,518 persons. Population of Muslim have increased at a faster rate with the addition of 1,10,059 persons during the year 1960 to 2011.

Percentage wise religion in the state as per 2011 Census is given in Chart No. 2.1. As per 2011 Census, population of Hindus works out to be 66.1% followed by Christians with 25.1%, Muslims 8.3% and others with 0.5%. Others include Sikh, Jain, Buddhist, other religions and religion not stated.

Chart No. 2.1
Percentage wise Religion in the State as per 2011 Census



Source: Office of the Directorate of Census operations Goa.

Table No.2.3
Population by Religious Community in Goa since 1960 to 2011

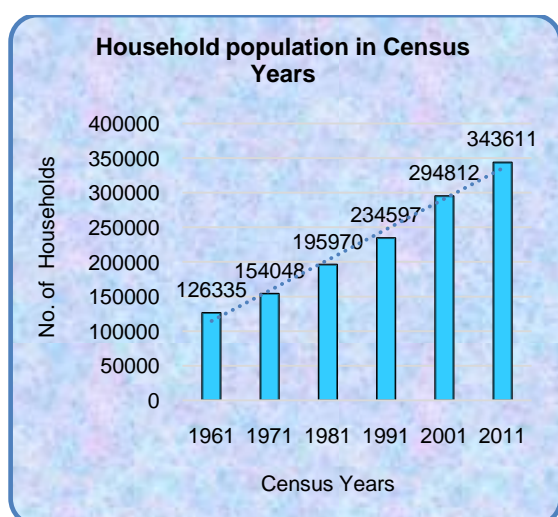
Census	Hindu	Christian	Muslim	Others	Total	%
1960	353526	224612	11505	354	589997	59.92
1971	496389	270126	26460	2125	795100	62.43
1981	646986	315902	41317	3544	1007749	64.20
1991	756621	349225	61455	2492	1169793	64.68
2001	886551	359568	92210	9339	1347668	65.78
2011	963877	366130	121564	6974	1458545	66.08

Source: Office of the Directorate of Census operations Goa.

Household Population

There are total 3, 43,611 households in the State as per 2011 census, i.e. 1,91,766 (55.81%) households in North Goa and 1,51,845 (44.19%) households in South Goa. Census wise household distribution since 1961 to 2011 is given in Chart No. 2.2.

Chart No. 2.2
Household population since 1961 to 2011



Source: office of the Directorate of Census operations Goa.

As can be seen from Table No.2.4, during 1961 Census, there were 1,26,335 households in the State, which

increased to 3,43,611 during 2011. 2,17,276 new households registered between 1961 to 2011 Census, there by registering a growth of 172%. As per 2011 Census, Salcete taluka (71,717) has highest number of households in the State followed by Bardez (57,147) Taluka and Tiswadi (42,241) Taluka respectively.

Workers Population

According to 2011 Census, a person is categorized as 'Worker' when she/he has participated in any economically productive activity at any time during the reference period. The total population of the State as per 2011 Census is 14,58,545, of which 7,39,140 (50.68%) males and 7,19,405 (49.32%) females. Taluka wise Workers population of the State since the year 1961 to 2011 is given in Annexure -2.

As can be seen from Annexure - 2, as per 2011 Census, there are 5,77,248 workers of which 3,27,658 is in North Goa and 2,49,590 South Goa. Salcete (1,08,209) taluka has the highest workers population followed by Bardez (9,46,62) taluka. Workers population in the State have increased from 2,44,261 in 1961 to 5,77,248 in 2011.

Table No.2.4
District and Taluka wise distribution of Households since 1961 to 2011

District/ Taluka	Number of Households in Census year					
	1961	1971	1981	1991	2001	2011
Goa	126335	154048	195970	234597	294812	343611
North Goa	74348	87035	107989	130363	164129	191766
Pernem	9502	10227	11397	12646	14967	17248
Bardez	24053	24692	30577	38832	51392	57147
Tiswadi	14945	19382	25123	29393	35492	42241
Bicholim	9029	11287	14170	16053	18811	22414
Sattari	5421	6380	7700	9256	12036	14367
Ponda	11398	15067	19022	24183	31431	38349
South Goa	51987	67013	87981	104234	130683	151845
Mormugao	6827	12848	21060	25794	32299	35702
Salcete	27347	31320	38471	45788	59063	71717
Quepem	6154	7893	10503	12672	16136	19119
Sanguem	6746	9388	11383	12221	13979	15068
Canacona	4913	5564	6564	7759	9206	10239

Source: Office of the Directorate of Census Operations Goa. As per 2011 Census Ponda Taluka is in North Goa District.

Scheduled Castes (SC) & Scheduled Tribes (ST) population

Scheduled Castes (SC) & Scheduled Tribes (ST) population in the State since the year 1981 to 2011 is given in Table No. 2.5. As can be seen from Table No. 2.5, there are 25,449 Scheduled Caste population in the State, of which 17,606 persons are in North Goa and 7,843 person in South Goa as per 2011 Census. Bardez (5933) taluka in the North Goa is highly populated with Scheduled Caste, followed by Tiswadi (3209) and Pernem (3070). Similarly, Salcete (3443) taluka in the South Goa has more Scheduled Caste population followed by Mormugao (2566) as per 2011 Census.

There was not much growth in the Scheduled Caste population during the 1981 to 2011 Census. As can be seen from the Table 2.5, during the last three

decades i.e. from 1981 to 2001, there hasn't been ample growth in the Scheduled Tribe population. As per 1981 Census, ST population was at 690 persons, which declined to 376 persons during 1991 and marginally increased to 566 person in the year 2001.

The Scheduled Tribe population registered a huge increase in its population from 566 persons in 2001 to 1,49,275 persons in 2011. A tremendous surge in Scheduled Tribe population is credited due to addition of three communities from the other backward classes viz. Kunbi, Velip and Gawda. The Gawda community has the highest population with 1,06,659 person, followed by Velip 32,032 and Kunbi 4,486 persons. Scheduled Tribe population is more intense in South Goa as compared to North Goa as per 2011 Census.

Table No.2.5
Taluka wise Scheduled Caste and Scheduled Tribe Population in the State from Census 1981 to 2011

District/ Taluka	Scheduled Caste				Scheduled Tribe			
	1981	1991	2001	2011	1981	1991	2001	2011
Goa	20619	24364	23791	25449	690	376	566	149275
North Goa	13498	16560	17083	17606	140	150	281	56606
Pernem	2399	2923	3000	3070	0	1	64	46
Bardez	4525	5499	5972	5933	47	32	119	1654
Tiswadi	2351	3350	2963	3209	40	37	42	18785
Bicholim	2014	2163	2208	2264	31	55	36	4492
Sattari	948	1075	1184	1205	4	6	4	4030
Ponda	1261	1550	1756	1925	18	19	16	27599
South Goa	7121	7804	6708	7843	550	226	285	92669
Mormugao	2599	3200	1877	2566	84	82	91	6870
Salcete	2541	2426	3107	3443	209	110	144	32562
Quepem	642	862	625	931	173	2	9	25290
Sanguem	1131	1082	867	730	82	32	13	14290
Canacona	208	234	232	173	2	0	28	13657

Source: Directorate of Census Operations, Goa. As per 2011 Census Ponda Taluka is in North Goa District.

Literate population and Literacy Rate

The literacy rate refers to the percentage of the population of a certain age group who can read and write. As per 2011 Census, literacy rate of the country stands at 74.04%, which has increased from 65.38% during 2001 Census showcasing an increase of 8.66% over a decade. State wise Literacy rate of country as per 2011 Census is given in Annexure - 3.

As per 2011 Census, literacy rate of the State stands at 88.70% which is above the average rate of the country and is among top five states/UTs. Of the total population, 11,65,487 persons are literate of which 6,15,823 are males and 5,49,664 are females. District and Taluka wise literate population of the State since 1961 to 2011 is given in Table No.2.6

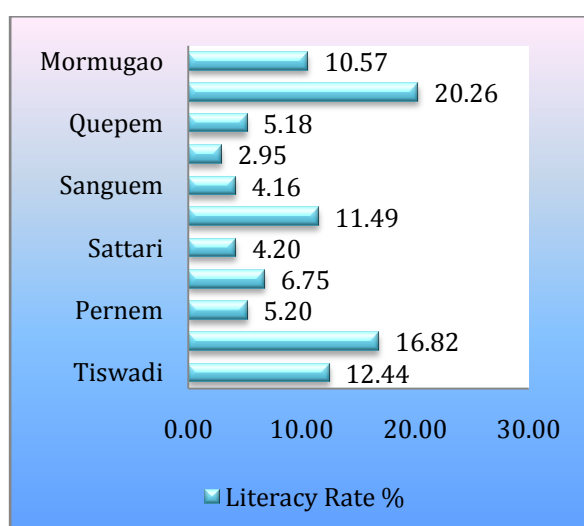
Table No. 2.6
District and Taluka wise distribution of Literate population since 1961 to 2011

Goa/ District/ Taluka	1961	1971	1981	1991	2001	2011
Goa	1842 71	3602 60	5769 28	7795 96	9855 62	1165 487
North Goa	1097 12	2147 75	3411 49	4575 54	5666 68	6630 60
Pernem	9356	2036 6	3290 2	4485 2	5232 4	6061 5
Bardez	4152 4	6930 2	1032 69	1365 51	1750 05	1960 15
Tiswadi	3289 9	5616 7	8475 5	1047 76	1216 62	1450 14
Bicholim	1034 4	2490 9	4193 3	5717 5	6781 6	7862 8
Sattari	2668	8543	1604 0	2753 0	3915 0	4892 9
Ponda	1292 1	3548 8	6225 0	8667 0	1107 11	1338 59
South Goa	7455 9	1454 85	2357 79	3220 42	4188 94	5024 27
Mormu gao	1351 5	3093 7	5647 6	8075 7	1061 70	1231 88
Salcete	4434 5	7578 0	1123 28	1463 55	1913 70	2360 82
Quepem	6764	1496 4	2539 7	3735 6	4888 1	6036 4
San guem	5214	1378 2	2524 5	3384 3	4299 0	4846 8
Cana cona	4721	1002 2	1633 3	2373 1	2948 3	3432 5

Source: Directorate of Census Operations, Goa. As per 2011 Census Ponda Taluka is in North Goa District.

As can be seen from Table No. 2.6, 1,84,271 persons were literate during the year 1961 which increased to 3,60,260 persons during 1971. During the last two Census i.e. 1991 and 2011, literate population of the State stands at 9,85,562 & 11,65,487 persons respectively there by registering a growth of 18.26% in a decade. Taluka wise literacy rate of the State as per 2011 Census is given in Chart No. 2.3.

Chart No.2.3
Taluka wise literacy rate of the State as per 2011 Census



Source: office of the Directorate of Census Operations, Goa.

As can be seen from the above chart and table Salcete (2,36,082) taluka has the highest literacy rate in the State which accommodates to 20.26%, followed by Bardez (1,96,015) and Tiswadi (1,45,014) with 16.82% and 12.44% respectively.

Sex Ratio

The State has a total population of 14,58,545 persons which comprises of 7,39,140 (50.68%) males and 7,19,405 (49.32%) females, indicating a sex ratio of 973 females per thousand males. The sex ratio of the State is above the National average sex ratio of 943. Kerala tops the list with the sex ratio of 1084 followed by Puducherry with 1037. Goa ranks at 10th position in the country

in respect of sex ratio. Sex ratio in the State since the year 1960 till 2011 is given in Table No.2.7. State wise sex ratio as per 2011 Census is given in Annexure - 4.

Table No.2.7
Sex Ratio of the state since 1960 to 2011

Census Year	Sex Ratio (Number of Females per thousand males)		
	North Goa	South Goa	Goa
1960	1083	1041	1066
1971	998	959	981
1981	979	971	975
1991	963	971	967
2001	953	972	960
2011	963	986	973

Source: office of the Directorate of Census Operations, Goa.

Density of Population

The density of population of the State has continuously increased from 1961 Census till 2011. It is observed that from 1961 Census till 2011 Census the density has increased by 141.7%. As per 2011 Census State is spread over an area of 3702 sq. km with the density of 394 persons per sq. km. Density of population of the State since 1961 to 2011 is given in Table No. 2.8. The State wise and Taluka wise density of population of the state is given in Annexure – 5 & Annexure – 6 respectively.

Table No. 2.8
Density of population of the state since 1961 to 2011

Sr. No	Census Year	Density of Population
1	1961	163
2	1971	215
3	1981	272
4	1991	316
5	2001	364
6	2011	394

Source: Directorate of Census operations, Goa. District Census Handbook, Goa.

As can be seen from Annexure – 5, Delhi tops the table with 11,320 persons per sq. km. followed by Chandigarh with 9,258 and Puducherry with 2,547 persons per sq. km. Goa ranks 16th in the list followed by Maharashtra & Tripura with 365 and 350 persons per sq. km. respectively.

Banking Services, 2011 Census

Modern bank plays vital role in the socio-economic development of the country. A developed banking system enables the country to attain balanced development without any special consideration of rich and poor, cities and rural areas etc. The State-wise distribution of households availing banking facilities is given in Annexure -7.

As per 2011 census, 58.69% of the households avail banking facilities in the country. At the national level Andaman & Nicobar Islands tops the list with 89.28% of the households availing the banking services in the country whereas the North-Eastern State of Manipur has the lowest percentage of households i.e. 28.64% availing banking services. Although, the percentage of households availing banking facilities is higher in the urban areas as compared to the rural areas. States like Uttar Pradesh, Rajasthan etc. have reported households availing banking facilities to be more in rural areas as compared to urban areas.

Number of Households availing banking services as per 2011 Census is given in Table No. 2.9. As can be seen from the table, 86.82% of the households has availed banking facilities in the State, out of which 84% in rural area and 88% in urban area. As per 2011 Census, 1,56,177 households in North Goa has availed banking facilities out of which 60,620 in rural area and 95,557 in urban areas.

Percentage of households availed banking facilities in South Goa is slightly on a lower side as compared to North Goa.

Table No. 2.9
Number of Households Availing Banking Services, 2011 Census

State/District	Total/Rural/Urban	No. of House holds	Households availing banking services	%
GOA	Total	322,813	280,259	86.82
	Rural	124,674	105,792	84.85
	Urban	198,139	174,467	88.05
North Goa	Total	179,085	156,177	87.21
	Rural	71,412	60,620	84.89
	Urban	107,673	95,557	88.75
South Goa	Total	143,728	124,082	86.33
	Rural	53,262	45,172	84.81
	Urban	90,466	78,910	87.23
* Households availing Banking facilities excluding Institutional Households.				

Source: Office of the Registrar General and Census Commissioner, India

Table No. 2.10
Projected Population of Goa from 2011 – 2021

Year	Projected Population
2011	14,58,545
2012	14,66,020
2013	14,73,384
2014	14,80,636
2015	14,87,779
2016	14,94,812
2017	15,01,737
2018	15,08,556
2019	15,15,268
2020	15,21,875
2021	15,28,378

Source: Office of the Registrar General and Census Commissioner, India

As can be seen from Table No. 2.10, projected population of the State is expected to be 15,28,378 approximately as per 2011 Census for the year 2021.

Birth Rate

Birth rate indicates the number of the live births occurring during the year per 1000 population estimated at mid-year. The birth rate during the year 2020 which are registered stands at 11.66 per thousand population.

Death Rate

The death rate in the State worked out to be 9.30 per thousand population which are registered during the year 2020, as per registration of Births and Deaths report of the Directorate of Planning, Statistics and Evaluation, Porvorim Goa.

Infant Mortality Rate (IMR)

Infant Mortality Rate (IMR) is an important indicator of the health status of the community. Infant Mortality Rate

is defined as the number of infants dying before reaching one year of age, per thousand live births in a given year.

The IMR of Goa during 2020 has decreased to 9.12 infant deaths per thousand live births as against 10.18 during 2019, as per the Registration of Births and Deaths Report of Directorate of Planning, Statistics and Evaluation, Porvorim Goa.

Maternal Mortality Rate (MMR)

It refers to the deaths of woman due to complications from pregnancy or child birth. The MMR during the year 2020 works out to be 49 per one lakh births, as per the Registration of Births and Deaths report of Directorate of Planning, Statistics and Evaluation, Porvorim Goa.

CHAPTER 3

STATE INCOME

State Income is one of the important parameters used to assess the strength of the economy of a State. The State Domestic Product and its related aggregates reflect the status of economic development of the State. The estimates of State Domestic Product over a period depict the extent and direction of changes in the levels of economic developments of the State.

The structure of economic activities changes over time due to changes in structure of production and demand in the economy. On the production side, the production pattern changes with the changes in the technology and innovations in the system and in the process some production becomes obsolete and other production comes in vogue. While on demand side, the consumption pattern also changes over time. The changes in relative prices stimulate changes in the consumption and production choices. Therefore, to account for these structural changes and to update the prices, the rebasing exercise is needed after a certain period.

The exercise of rebasing national accounts brings up a fresh lot of information about the changes in economic structure of the economy, along with switching over to new base prices. This also helps in judging the size of the economy, correction of biases and looking afresh at the relative importance of sectors in the economy.

The National Statistics Office (NSO), Ministry of Statistics and Programme Implementation, Government of India

revises the base year of the national accounts periodically to account for the structural changes in the economy. NSO has revised the base year of the national accounts from 2004-05 to 2011-12, revised the methodology of compilation and included new & recent data sources.

The new series of national accounts is an improvement upon old base (2004-05) in terms of its comprehensive coverage of Corporate sector and Government activities and incorporation of recent data generated through National Sample Surveys. It also brings up some change in methods of evaluation, approaches to account economic activities, introduces new concepts and incorporates new classifications.

Originally, the base revision was due for 2009-10 but it was postponed due to the global financial crisis. In this base revision to 2011-12 prices, recent data sources such as NSSO, Employment - Unemployment Survey 2011-12, Unincorporated Enterprises Survey 2010-11, Household Consumer Expenditure Survey 2011-12 etc. have been used in the estimation.

As is the practice internationally, sector-wise estimates are being presented as 'Gross Value Added (GVA) at basic prices', while, Gross Domestic Product (GDP) of the country is being referred to as 'GDP at market prices'. Accordingly, Gross State Domestic Product (GSDP) is being referred to as 'GSDP at market prices'. GSDP with 2004-05 as base was being compiled at 'factor cost'.

The improvements in the methodology for estimation and inclusion of new & revised data have notable effects on the estimates.

In the revised series, GVA at basic prices can be referred to as GVA at producer price and GDP at market price as GDP at buyer price. Estimates of GVA at factor cost (earlier called GDP at factor cost) can be compiled by using the estimates of GVA at basic prices and production taxes less subsidies. It would result in effect on size of GVA compared to GDP at factor cost, which may be different for different sectors.

GDP at market prices, which is henceforth referred as GDP, can be computed by adding net of product tax and product subsidies in GVA at basic prices.

Gross Value Added (GVA) at basic prices = compensation of employees + operating surplus/mixed income + consumption of fixed capital (CFC) or depreciation + production taxes - production subsidies.

Value added is calculated as output intermediate consumption.

GVA at factor cost (earlier referred to as GDP at factor cost) = GVA at basic prices + production taxes - production subsidies.

Gross Domestic Product (GDP) = Σ GVA at basic prices + product taxes - product subsidies

Gross State Domestic Product (State Income) Estimates have undergone a facelift with regard to the shift in their base year from 2004-05 to 2011-12 following the method adopted by the National Statistics Office. As such, statistical comparisons between the old and new base year cannot be drawn for GSDP from 2011-12 onwards.

The methodology for compilation of the GSDP in the revised new base year is depicted in Box 3.1.

The reasons for the rise in growth for manufacturing sector on new base are structural as well as change in compilation methodology

Box 3.1

Methodology for compilation of the GSDP in the revised new base year

1. The estimates of GVA, prepared at factor cost in the earlier series, are presently being prepared at Market Prices in the new series.
2. Enterprise approach has replaced Establishment approach in the Annual Survey of Industries (ASI) from 2012-13 and post manufacturing activity has also been included in the estimation of GVA. GSDP (GSDP at Market Prices) = Gross State Value Added at Basic Prices + Product Taxes – Product Subsidies
3. In the new series, MCA -21 (Ministry of Corporate Affairs) data has been evolved in the estimation of Private Corporate Sector GVA.
4. The estimates of Computer related services was based on the proportion of private corporate workforce as revealed from Employment and Unemployment Survey of NSSO in the 2004-05 series. However, in the 2011-12 series these allocations are based on the proportion of software exports made by the State.
5. Similarly, in manufacturing sector, All India Corporate estimates are allocated to the States based on State ASI ratios.
6. In the new series, the estimates of Agriculture and Livestock sector, Trade, Hotel and Restaurants sector are calculated separately. Transport sector estimates have been individualized as Road Transport, Water Transport, Air Transport and Services Incidental to Transport.
7. Further, the following results of latest surveys and census have also been incorporated
Population Census, 2011; All India Livestock Census, 2012; NSS 68th round (2011-12) – Survey on Employment & Unemployment and Household Consumption
Expenditure: i) NSS 67th round (2010-11) - Survey on Unincorporated Non-agricultural Enterprises;
ii) NSS 70th round (2013) - All India Debt and Investment Survey and Situation Assessment Survey.

The methodological changes include the change in approach, better coverage, use of new valuation methods and introduction of new concepts. Some of these are as follows:

- The shift from Establishment approach to Enterprise approach: The establishment approach used in Annual Survey of Industries did not capture the activities of a unit other than manufacturing. Whereas, an enterprise along with its manufacturing activities is also engaged in activities other than manufacturing such as ancillary activities etc. Now, in the new approach, the activities of a manufacturing company other than manufacturing are accounted in manufacturing sector. The enterprise approach is facilitated by MCA 21 data with Ministry of Corporate Affairs. These changes possibly have increased the coverage of the registered sector of manufacturing.

Incorporation of the findings of NSSO Surveys: The details of new NSS Surveys viz. Unincorporated Enterprises Survey 2010-11 and Employment & Unemployment Survey 2011-12 are now available and therefore incorporated in the new series. The updates are an improvement in the representation of activities in the unorganized manufacturing sector.

The change in Labour Input Method: The new series has switched over to “Effective Labour Input Method” for Unincorporated Manufacturing & Services Enterprises. The earlier method was assigned equal weights to all types of workers, while the new

method assigns different weights for workers as per their productivity.

- The inclusion of production tax less subsidies: The net of production tax and production subsidies is positive in ‘manufacturing’, while it is inter-alia negative in ‘agriculture and allied’ and ‘electricity, gas etc’. Therefore, the positive net production tax would increase the size of GVA in the sector in absolute and relative to other sectors. Moreover, any change, including change in policy, alters the lump sum production tax and subsidies, then this may also reflect in the growth rates in the sector.

In summation, one can say, the vast difference in the new series figures is not just because of updation of the database or change in methodology but more so because of the change in data source. The new GDP numbers will be liable to changes in the future, based on change in the base year of IIP, WPI and CPI series. These are important indices which play a pivotal role when computing GDP at constant and current prices. Based on revisions of base year of these indices, GDP growth rates may change.

Quick Estimates of Gross State Domestic Product (GSDP) and Net State Domestic Product (NSDP) for the year 2019-20

The Quick Estimates of Gross State Domestic Product (GSDP) and Net State Domestic Product (NSDP) at current and constant (2011-12) prices for the year 2020-21 (Q) are given in Table No. 3.1.

Table No. 3.1
Quick Estimates of Gross State Domestic Product and Net State Domestic Product for the year 2020-21
(₹ in crore)

Item	GSDP	NSDP
Current Prices	78337.92	70766.10
Constant Prices(2011-12)	53959.86	47693.89

Gross State Domestic Product (GSDP) at Current Prices

The GSDP at current prices for the year 2020-21 (Quick Estimates) is ₹ 78337.92 crore as against ₹ 74828.37 crore (Provisional Estimates) in the year 2019-20 (P) thereby registering a growth of 4.69 per cent. For the year 2020-21, sector and sub-sector wise composition of GSDP at current prices for the period from 2016-17 to 2020-21 (Q) is given in Annexure - 8.

As per the Advanced Estimates (AE) the anticipated GSDP at current market prices in the State during 2021-22 is expected to reach ₹ 85380.28 crore.

At current prices, the anticipated GDP of the country is likely to decrease to ₹ 198.01 lakh crore Provisional Estimates in 2020-21 as against the GDP for the year 2019-20 of ₹ 200.75 lakh crore as per National Statistics Office (NSO) Press release. The growth in nominal GDP during 2020-21 is estimated at (-) 1.4 per cent.

The growth rates of GSDP and GDP at current prices from 2017-18 to 2020-21 are presented in Table No. 3.2.

Table No.3.2
Annual Growth Rate of GSDP and GDP at Current Prices

Year	GSDP (₹. crore)	Growth Rate of GSDP (%)	GDP (₹. crore)	Growth Rate of GDP (%)
1	2	3	4	5
2017-18	69352.05	10.12	17090042	11.00
2018-19	71853.34	3.61	18899668	10.60
2019-20 (P)	74828.37	4.14	20074856	6.2
2020-21 (Q)	78337.92	4.69	19800914	-1.4

GDP- Gross Domestic Product of the country,
P- Provisional Estimates, Q-Quick Estimates
Source: 1. Directorate of Planning, Statistics and Evaluation, Government of Goa
2. National Statistics Office, Government of India.

The Quick Estimates of sector-wise percentage distribution of GSDP at Market Prices for the year 2020-21 reveals that, primary sector accounts for 7.12 per cent, secondary sector 50.18 per cent and tertiary sector 42.70 per cent. The sector-wise composition of GSDP at current prices from 2016-20 to 2020-21 (Q) is given in Table No. 3.3.

Table No. 3.3
Sector wise Percentage Composition of GSDP at Current Prices

Sector	(Per cent)				
	2016 - 17	2017- 18	2018- 19	2019- 20 (P)	2020- 21 (Q)
Primary	9.71	8.81	7.06	6.87	7.12
Second-ary	53.00	52.75	54.25	52.18	50.18
Tertiary	37.29	38.44	38.68	40.95	42.70
Total	100.00	100.00	100.00	100.00	100.00

It is revealed from the above Table No. 3.3, that the contribution of primary sector witnessed an increase of 9.71 per cent in 2016-17 and thereafter registered a downward trend of 7.12 per cent in 2020-21 (Q). The primary sector has accounted for 6.87 per cent of the total GSDP during 2019-20 (P).

The contribution of secondary sector to GSDP which accounted for around 53.00 per cent in 2016-17 witnessed a downward trend in 2017-18 of 52.75 per cent and a marginal increase of 54.25 per cent in 2018-19, further fall in 2019-20 & 2020-21 to 52.18 & 50.18 percent respectively..

Sector-wise percentage distribution of GSVA at current prices and the percentage growth over the previous year in respect of GSDP at current prices for the period 2016-17 to 2020-21 (Q) are given in Annexure – 10 & 12 respectively.

It is observed from the Annexure-12, that during the year 2017-18, the State witnessed a negative growth rate of (-) 1.85 per cent and (-) 15.97 per cent during the year 2018-19 in the primary sector. The sudden decline in GSDP at current prices was due to change in methodology for the new series 2011-12 and lifting of ban on the mining sector. The GSDP at current prices for the year 2019-20 (P) shows a positive growth of 1.58 and in 2020-21 (Q) it is estimated to register a growth of 8.96 per cent.

Sector-wise growth of GSDP at current prices is given in Table No. 3.4. As per the Quick Estimates for the year 2020-21, primary and secondary sectors registered a growth of 8.96 per cent and 1.01 per cent respectively over the previous year while tertiary sector registered a growth of 9.53 per cent.

Table No. 3.4
Broad Sector wise GSDP at Current Prices

Sector	₹ in crore, Growth Rate in per cent			
	2017-18	2018-19	2019-20 (P)	2020-21 (Q)
Primary	5415.11	4550.36	4622.42	5036.78
	-1.85	-15.97	1.58	8.96
Secondary	32418.32	34950.68	35124.82	35481.02
	7.65	7.81	0.50	1.01
Tertiary	23621.90	24921.22	27561.30	30188.03
	11.50	5.50	10.59	9.53
Taxes on Products	8159.77	7696.35	7852.84	8050.12
Subsidies on products	263.04	265.28	333.01	418.03
Total	69352.05	71853.34	74828.37	78337.92
	10.12	3.61	4.14	4.69

*Forestry and Logging sub sector for the FY 2016-17 has been revised by NSO, New Delhi based on the India State of Forest Report (ISFR 2017)

Gross State Domestic Product at Constant (2011-12) Prices

The GSDP for the State of Goa at constant (2011-12) prices for the year 2020-21 (Q) is estimated at ₹ 53959.86 crore as against ₹ 53099.57 crore in the year 2019-20 (P) thereby reflecting a marginal growth of 1.62 per cent as against 0.07% in 2019-20 (P).

Comparison of GSDP and GDP at Constant (2011-12) Prices

The anticipated GSDP at market prices of Goa is expected to grow at 1.62 per cent during 2020-21 (Q) as compared to 0.07 per cent during 2019-20 (P). At national level, the GDP estimates at constant (2011-12) prices is estimated to decrease at (-) 6.60 per cent in 2020-21 as compared to 3.70 per cent in 2019-20.

There is a likelihood of this growth being revised in subsequent revisions carried out. The growth rates of GSDP and GDP at constant (2011-12) prices from 2016-17 to 2020-21 (Q) are presented in Table No. 3.5.

Table No. 3.5
Annual Growth Rate of GSDP and GDP at Constant (2011-12) Prices

Year	GSDP (₹ crore)	Growth Rate of GSDP (%)	GDP (National) (₹ crore)	Growth Rate of GDP (%)
2016-17	51249	11.19	12308193	8.30
2017-18	52653	2.74	13144582	6.80
2018-19	53063	0.78	13992914	6.50
2019-20 (P)	53100	0.07	14515958	3.70
2020-21 (Q)	53960	1.62	13558473	-6.60

Source: 1. Directorate of Planning, Statistics & Evaluation, Government of Goa
2. National Statistics Office, Government of India.

From the above table, it is seen that the growth rate in GSDP dipped from 11.19 per cent in 2016-17 to 0.07 per cent in 2019-20 (P). However, the growth rate for the year 2020-21 (Q) is 1.62 per cent. Sector and sub-sector wise GSDP at constant prices is given in Annexure- 9.

Sectoral Composition

The sector-wise composition of GSDP at constant prices from 2016-17 to 2020-21 (Quick Estimates) is given in Table No. 3.6. During the year 2020-21 (Quick Estimates), primary sector accounted for 5.24 per cent, secondary sector for 55.04 per cent and tertiary sector accounted for 39.72 per cent.

The primary sector which accounted for 8.75 per cent during 2016-17 decreased to 8.26 per cent during 2017-18, further reduced to 5.55 per cent in 2018-19, it is expected to contribute 5.24 per cent in 2020-21 (Q).

But, the composition of secondary sector which was about 56.43 per cent during 2016-17 has dipped to 56.26 per cent during 2017-18, in 2020-21, it is expected to contribute 55.04 per cent.

As also, for the year 2017-18, 2018-19, 2019-20 and 2020-21 the contribution of the secondary sector is in the range of 56 to 58 per cent.

However, the composition of tertiary sector increased from 34.82 per cent in 2016-17 to 39.72 per cent in 2020-21 (Q). Sector-wise percentage distribution of GSDP at constant (2011-12) prices is given in Annexure-11.

Percentage growth over the previous year in respect of GSDP at constant (2011-12) prices is given in Annexure-13.

Table No.3.6
Sector wise Percentage composition of GSDP at Constant (2011-12) Prices
(Per cent)

Sector	2016-17	2017-18	2018-19	2019-20 (P)	2020-21 (Q)
Primary	8.75	8.26	5.55	5.16	5.24
Secondary	56.43	56.26	58.57	56.78	55.04
Tertiary	34.82	35.47	35.88	38.06	39.72
Total	100.00	100.00	100.00	100.00	100.00

It is seen from the Annexure-13 that the growth rate over the previous year under primary sector was 67.55 per cent during the period 2016-17 due to brief resumption of mining activities in the State.

However, it dipped to (-) 2.89 in the year 2017-18 and (-) 32.11 in the year 2018-19. This was mainly due to ban on mining and quarrying activity.

During 2019-20 (P), the growth rate was 0.07 per cent due to the e-auction of mining ore. However, the growth rate is likely to increase to 1.62 per cent in 2020-21 (Q).

Similarly, the growth rate under tertiary sector which was 6.70 per cent in 2016-17 which went down to 4.82 per cent in 2017-18 and further increased to 5.21 per cent in 2020-21 (Q).

The sectoral growth rate of GSDP at constant (2011-12) prices is given in Table No. 3.7.

Table No. 3.7
Sectoral growth rate of GSDP at Constant
(2011-12) Prices

Sector/sub sector	(Per cent)			
	2017-18	2018-19	2019-20 (P)	2020-21 (Q)
Agriculture, forestry and fishing	2.91	5.77	-6.95	2.13
Mining & quarrying	-11.26	-95.62	1.77	10.23
Primary sector	-2.89	-32.11	-6.74	2.34
Manufacturing	2.55	3.71	-4.55	-4.25
Electricity, Gas Water supply & other utility services	-1.25	18.91	8.51	9.20
Construction	10.67	-1.70	-3.81	-4.81
Secondary Sector	2.59	5.14	-2.76	-2.27
Trade, Repair, Hotels and Restaurants	-6.44	29.52	1.92	2.56
Transport, Storage, communication & services	-6.54	-15.98	16.56	2.18
Transport by means other than railways	-7.82	-25.13	25.39	1.38
Financial Services	7.96	-15.13	-1.20	-1.20
Real Estate, Ownership of dwelling & professional services	4.51	-1.49	7.42	8.31
Public Administration	16.72	1.68	7.66	7.69
Other Services	11.44	6.28	9.98	7.14
Tertiary Sector	4.82	2.15	6.43	5.21
GSDP	2.74	0.78	0.07	1.62

Per Capita Income / Per Capita GSDP

Per Capita Income is estimated by dividing GSDP at current prices with mid-financial year projected population (as on 1st October). Per Capita Income / Per Capita GSDP over period 2016-17 to 2020-21 (Q) is given in Table No. 3.8. It is seen from the table that per capita income depicts upward trend from ₹ 415411 in 2016-17 to ₹ 484326 in 2019-20 (P) and ₹ 504430 in 2020-21 (Q).

Table No. 3.8
Per Capita Income / Per Capita GSDP

Item	2016-17	2017-18	2018-19	2019-20 (P)	2020-21 (Q)
At current Prices (₹)	415411	454172	467795	484326	504430
% growth over previous year	13.56	9.33	3.00	3.53	4.15
at Constant Prices (₹)	338056	344811	345462	343687	347456
% growth over previous year	10.38	2.00	0.19	-0.51	1.10

Net State Domestic Product (NSDP)

Net State Domestic Product (NSDP) is defined as a measure, in monetary terms, of the volume of all goods and services produced within the boundaries of the State during a given period of time after deducting the depreciation from the Gross State Domestic Product.

The Net State Domestic Product (NSDP) at current and constant (2011-12) prices is given in Table No. 3.9.

Table No. No.3.9
Net State Domestic Product (NSDP) at Current and Constant (2011-12) Prices for the period 2017-18 to 2020-21

(₹ in crore)

Item	2017-18	2018-19	2019-20 (P)	2020-21 (Q)
At current prices	62872.67	65082.73	67355.70	70766.10
NSVA at basic Prices	54975.94	57651.66	59835.87	63131.05
At constant prices	47076.85	47424.53	46919.61	47693.89
NSVA at basic prices	42687.49	43108.23	42722.07	43034.59

Net State Domestic Product (NSDP) at Current Prices

The NSDP at current prices for the year 2020-21 (Quick Estimates) stood at ₹ 7076610 lakh as against ₹ 6735570 lakh in 2019-20 (Provisional) indicating a growth of 5.06 per cent during the year as compared to a growth of 3.49 per cent in 2019-20. Sector and sub sector-wise NSDP at current prices for the period 2016-17 to 2020-21 is given in Annexure-14.

The sector-wise composition of NSVA at current prices in 2020-21 (Q) shows that secondary sector accounted for 50.21 per cent of NSDP followed by tertiary and primary sectors which accounted for 42.29 per cent and 7.50 per cent respectively. Sector-wise per centage distribution of NSDP at current prices for the period 2016-17 to 2020-21 (Q) is given in Annexure- 16

Sector-wise growth of NSDP for 2020-21 (Q) shows that primary sector registered a growth of 9.50 percent. The secondary and tertiary sectors grew at 0.98 per cent and 10.68 percent respectively during 2020-21 as against 1.04 percent, -0.46 per cent and 10.47 per cent during 2019-20 (P).

Under the sub-sector of primary sector, Crop is expected to attain a higher growth rate of 16.31 per cent followed by Forestry & Logging and Fishing & Aquaculture with growth rates of 8.60 & 4.62 per cent respectively. The Sub-sector of Mining & Quarrying is expected to show a negative growth rate of 13.77 percent during the year 2020-21 (Q).

The sub-sectors of the secondary sector 'electricity, gas, water supply and other utility services' is expected to record a growth of about 19.99 per

cent. While the sub-sectors of 'manufacturing' and 'construction' may show a negative growth of (-) 2.26 per cent and (-) 0.25 per cent.

Under the sub-sectors of tertiary sector, real estate, ownership of dwelling and professional services' may record a higher growth of 16.45 per cent followed by the sub-sectors 'other services' (12.94 per cent), 'public administration' (11.97 per cent) and 'trade, repair, hotels and restaurants' (7.07 per cent). The percentage growth in respect of NSDP at current prices over the previous year is given in Annexure- 18.

Net State Domestic Product at Constant (2011-12) Prices

The NSDP at constant (2011-12) prices for the year 2020-21 (Q) is ₹ 4769389 lakh as against ₹ 4691961 lakh for the year 2019-20 (P), reflecting a growth of 1.65 per cent over the year 2019-20.

The sector and sub-sector wise composition of NSDP at constant (2011-12) prices over the period 2016-17 to 2020-21 (Q) is given in Annexure-15.

The sector-wise composition of NSDP at constant prices reveals that during the year 2020-21 (Q), primary sector accounted for 5.48 per cent, secondary sector 55.59 per cent and tertiary sector accounted for 38.93 per cent. The sector wise percentage distribution of NSDP at constant prices from 2016-17 to 2020-21 (Q) is given in Annexure- 17.

The contribution of primary sector which was 8.86 per cent in 2016-17 went down steadily to 8.58 per cent in 2017-18 and is expected to be 5.48 per cent in 2020-21 (Q).

The contribution of secondary sector to NSDP ranged from 59.48 per cent to 57.57 per cent in the years 2016-17 to 2019-20 (P). The contribution of secondary sector to NSDP stood at 55.59 per cent during 2020-21 (Quick Estimates).

The share of tertiary sector in NSDP shows an upward trend over the years from 33.53 per cent in 2016-17 to 37.04 per cent in 2019-20 (P) and thereafter its share increase up to 38.93 per cent in 2020-21 (Q).

The percentage growth in respect of NSDP at constant prices over the previous years is given in Annexure - 19.

Sector wise growth of NSDP for 2020-21 (Q) shows that primary sector registered a positive growth of 2.43 per cent, while secondary and tertiary sectors grew by (-) 2.73 per cent and 5.87 per cent respectively.

Under primary sector, the sub-sector of 'mining and quarrying' is expected to register an increase in its growth rate as compared to the previous year 2019-20. On the other hand, 'crops' and 'fishing and aquaculture and forestry and logging have shown a marginal growth. While 'fishing & aquaculture' has recorded a negative growth.

Under the sub-sectors of secondary sector, there may be an increase in 'electricity, gas & water supply' which registered a growth rate of 13.81 per cent while 'manufacturing' and 'construction' may show a negative growth of (-) 4.52 and (-) 5.51 per cent. Under the sub-sectors of tertiary sector, 'real estate, ownership of dwelling is expected to register a higher growth rate (10.54 per cent)

followed by 'public administration' (8.52 per cent).

Per Capita Income NSDP and NDP – Comparison

Per Capita Income is estimated by dividing NSDP at current prices with mid-financial year projected population (as on 1st October).

The per capita income of NSDP and NDP at current and constant (2011-12) prices is given in Table No. 3.10.

Table No. 3.10
Per Capita Income of NSDP and NDP at Current and Constant (2011-12) Prices

Year	At Current Prices (₹)		At Constant (2011-12) Prices (₹)	
	NSDP	NDP	NSDP	NDP
2016-17	378953	104880	305875	83003
2017-18	411740	115224	308296	87586
2018-19	423716	125946	308753	92133
2019-20 (P)	435959	132115	303687	94270
2020-21 (Q)	455674	126855	307108	85110

GSDP & GDP- Comparison

A comparison of GSDP and GDP at current and constant (2011-12) prices is given in Table No. 3.11. It is seen from the table that during 2016-17 GSDP growth rate at constant prices decreased from 11.19 per cent to 2.74 per cent during 2017-18 and is expected to further reduce to 1.62 per cent in the year 2020-21 (Q). During 2017-18 and 2018-19 GDP growth rate at constant prices was stable at around 6.50 per cent. In the subsequent years i.e. 2018-19 (3rd RE), 2019-20 (2st RE) & 2020-21 (1st RE) GDP at constant prices stood kept falling and in the year 2020-21 (Q) it is expected to fall by (-) 6.60 per cent.

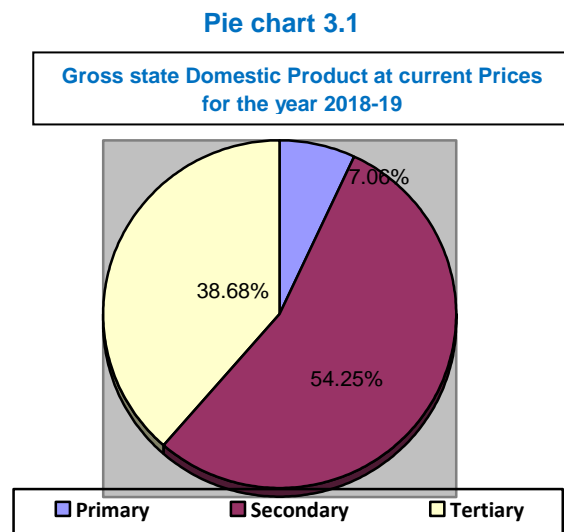
The growth rate of GDP at current prices over the period 2016-17 to 2020-21 averaged at about 7.64 per cent for 5 years. In the year 2020-21 the GDP is estimated to fall by (-) 4.80 percent.

The growth rate of GSDP at current prices of the State during 2016-17 stood at 14.39 per cent and thereafter decreased to 10.12 per cent in 2017-18, 3.61 per cent in 2018-19 and 4.14 per cent in 2019-20. During 2020-21 GSDP growth stood at 4.69 per cent.

Table No. 3.11
Growth Rate of GSDP and GDP at Current Prices and Constant (2011-12) Prices for the period 2016-17 to 2020-21.
(Per cent)

Year	At Current Prices		At Constant (2011-12) Prices	
	GSDP	GDP	GSDP	GDP
2016-17	14.39	11.8	11.19	8.30
2017-18	10.12	11.0	2.74	6.80
2018-19	3.61	10.60	0.78	6.50
2019-20 (P)	4.14	6.2	0.07	3.70
2020-21 (Q)	4.69	-1.40	1.62	-6.60

A graphical analysis of the contribution of GSDP at market prices for the year 2018-19 is represented in the pie chart 3.1



As can be seen from the above chart, the secondary sector contributed the highest towards the share of GSDP of 54.25% followed by the tertiary sector at 38.68%. The primary sector contributed the lowest in terms of the share of GSDP at 7.06%.

CHAPTER 4

PUBLIC FINANCE

STATE FINANCES

For the last two years, the global economy has seen a lot of instability due to Covid 19 pandemic. The period from March 2019 to March 2021 saw a global slump in the economy and Goa was not spared from its effects.

The growth of the State was adversely affected. However, 2021-22 has shown signs of recovery.

As per Budget Estimates for the year 2021-22, the revenue receipts are estimated to be ₹ 14787.50 crore as against ₹ 12652.86 crore (RE 2020-21).

The revenue surplus is estimated to be ₹ 58.46 crore (BE 2021-22) and the fiscal deficit is estimated to be ₹ 2650.53 crore.

The capital receipts are estimated at ₹ 3631.84 crore as against ₹ 3236.43 crore (RE 2021-22) showing an increase of 12.22%. The internal debt of the State is estimated at ₹ 3124.30 crore.

Budget at a Glance

An abstract of Budget 2021-22 is given in Table 4.1.

As seen from table 4.1 the total receipts and expenditure are estimated to show an increase of 15.92% and 22.19% respectively over the previous year 2020-21 (RE).

Table 4.1
Budget at Glance

(₹ in crore)

Item	2019-20	2020-21 (RE)	2021-22 (BE)
Revenue Receipts	9548.36	12652.86	14787.50
Capital Receipts	3088.62	3236.43	3631.84
Total receipts	12636.98	15889.29	18419.34
Revenue Exp	9767.11	12786.14	14729.03
Capital Exp	2697.66	4927.21	6914.65
Total Exp	12464.77	17713.35	21643.68
Fiscal Deficit	2060.11	2416.66	2650.53
Primary Deficit	595.02	660.46	757.01

Source: Budget at a Glance, Government of Goa

I. REVENUE ACCOUNT

Revenue Account comprises of current income and expenditure of the State.

A. Revenue Receipts

Revenue receipts of the State comprise of the following three components.

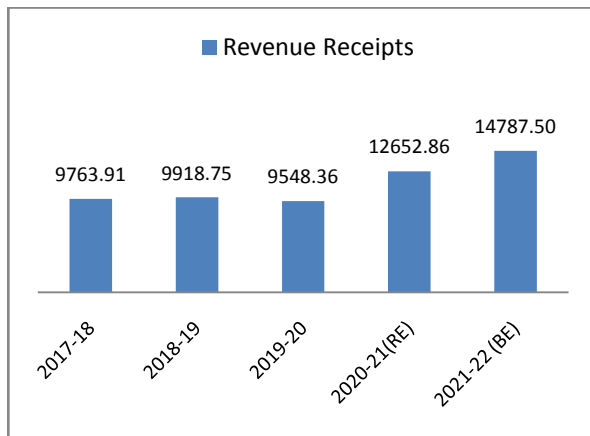
Tax Revenue

Non-tax Revenue

Grant –in-aid from Central Government

The revenue receipts of the State for the period 2016-17 to 2021-22 (BE) are given in the Chart 4.1.

Chart 4.1
Revenue receipts from 2017-18 to 2021-22(BE)



The revenue receipts for 2021-22 is estimated at ₹ 14787.50 crore which is 16.87% higher than 2020-21 RE.

Chart 4.2
% share of revenue receipts
2021-22 BE

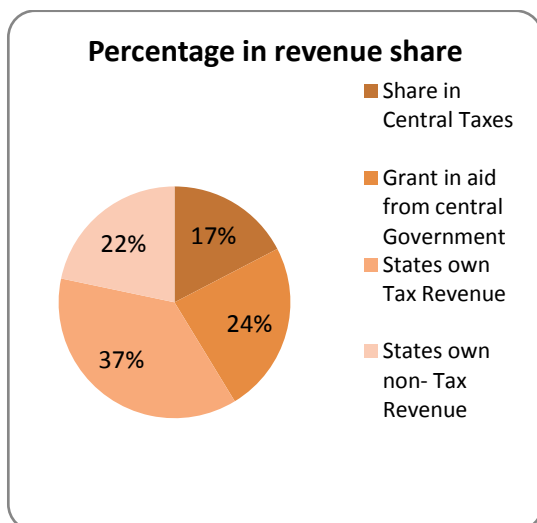


Chart No. 4.2 shows the percentage share of revenue receipts for the year 2021-22(BE). The are classified into four broad categories which include tax revenue, non-tax revenue, Grant-in-aid from Central Government and share in Central taxes. State's own tax revenue forms the highest share in revenue receipts (37%) followed by Grant-in-aid from Central Government (24%), State's own non-tax revenue (22%) and share in Central taxes (17%)

1. Tax revenue

The tax revenue is classified into State's own tax revenue and share in Central tax. In 2021-22 (BE) it is estimated that ₹ 5472.51 crore and ₹ 2569.07 crore would comprise of State's own tax revenue and State's share in Central taxes respectively.

The tax revenue for the year 2021-22 (BE) shows a growth rate of 1.61% as compared to 2020-21 RE of which State's own tax revenue shows a growth rate of 5.97% while share in Central taxes decreased at -6.59% for the same period.

Table 4.2
Receipts under broad components of tax revenue
from 2017-18 to 2021-22 (BE)

(₹ in crore)

Year	States own Tax Revenue	Share in Central tax	Total
2016-17	4261.16 (64.95)	2299.2 (35.05)	6560.36 (100.00)
2017-18	4731.74 (66.08)	2428.58 (33.92)	7159.96 (100.00)
2018-19	4871.36 (62.85)	2878.36 (37.15)	7749.72 (100.00)
2019-20	4700.56 (64.48)	2589.13 (35.52)	7289.69 (100.00)
2020-21(RE)	5164.39 (65.25)	2750.26 (34.75)	7914.65 (100.00)
2021-22 (BE)	5472.51 (68.05)	2569.07 (31.95)	8041.58 (100)

Note: Figures in bracket indicate percentage to total of the respective year.

Source: Budget at a Glance, Government of Goa

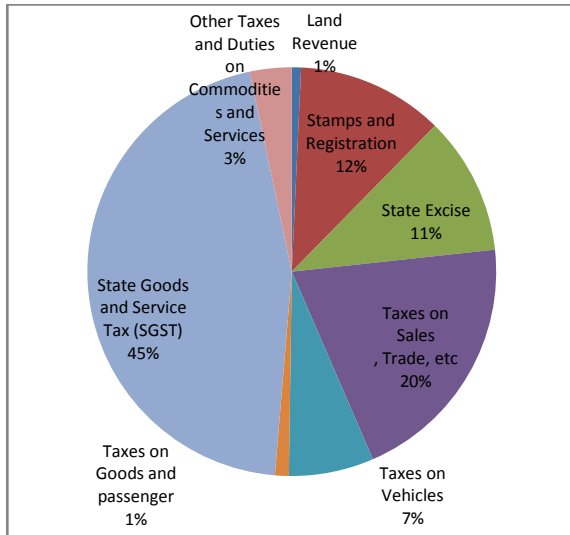
a) State's Own Tax Revenue

A major share of State's own tax revenue comes from State Goods and Service Tax (SGST) i.e. ₹ 2482.64 crore, which is around 45% of the total State's own tax revenue followed by taxes on sales, trade, etc (20%), Stamps and registration (12%), State Excise (11%) and taxes on vehicles (7%).

Taxes on goods and passengers (1%), land revenue (1%) and other taxes and duties (3%) form a small portion of

State's own tax revenue. The break up is shown in chart 4.3 below

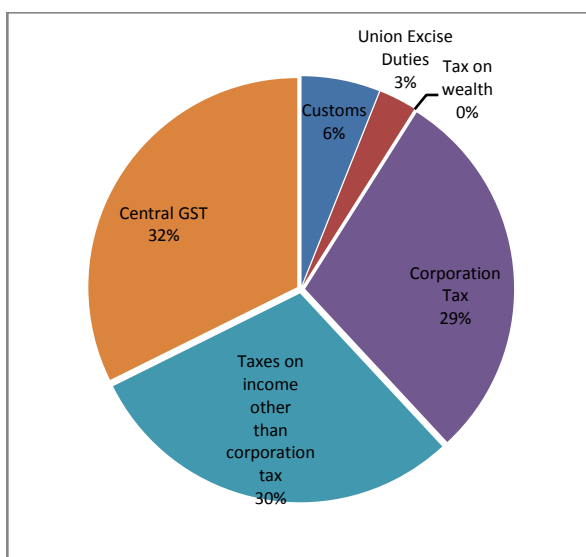
Chart 4.3
Break-up of State's own tax revenue for 2020-21 (BE)



b) Share in Central taxes

A major portion of the State's share in Central taxes comes from central GST (32%), Taxes on income other than corporation tax (30%), Corporation tax (29%), Customs (6%) and Excise duties (3%).

Chart 4.4
Break-up of state's share in Central taxes 2021-22 (BE)



2. Non-Tax Revenue

Table 4.3
Revenue under broad components of Non-tax revenue from 2016-17 to 2021-22 (BE)
(₹ in crore)

Year	States own Non Tax Revenue	Grant in aid from Gol	Total
2016-17	1427.95	221.18	1720.56
	(82.99)	(15.47)	(100.00)
2017-18	1742.67	744.62	2487.29
	(70.06)	(29.94)	(100.00)
2018-19	1354.43	814.60	2169.03
	(62.44)	(37.56)	(100.00)
2019-20	929.01	1329.65	2258.65
	(41.13)	(58.87)	(100.00)
2020-21 (RE)	2170.26	2567.94	4738.20
	(45.80)	(54.20)	(100.00)
2021-22 (BE)	3209.16	3536.76	6745.92
	(47.57)	(52.43)	(100.00)

The receipts under non tax revenue for the year 2021-22 is estimated at ₹ 6745.91 crore which is 42.37% higher as compared to 2020-21 (RE).

a) State's Own Non-Tax revenue

The State's own non-tax revenue for the year 2021-22 (BE) is ₹ 3209.16 crore which is 47.57% of the non tax revenue of the State.

b) Grants-in-Aid from Central Government

The State is provided Grant-in-Aid by the Central Government to implement various Central Sector/Centrally sponsored schemes. The trend in Grant-in-Aid from 2017-18 to 2021-22 is given in Table 4.3

The grant-in-aid has increased by 63.23% in 2019-20 as compared to previous year 2018-19. The Grant-in-Aid for 2021-22 is estimated at ₹ 3536.76 crore which is an increase of 37.73% over 2020-21 (RE).

B. Revenue Expenditure

Revenue expenditure comprises of all expenditure for collection of taxes and other receipts, interest payment and servicing of public debt, expenditure incurred on social and developmental service and other expenditure.

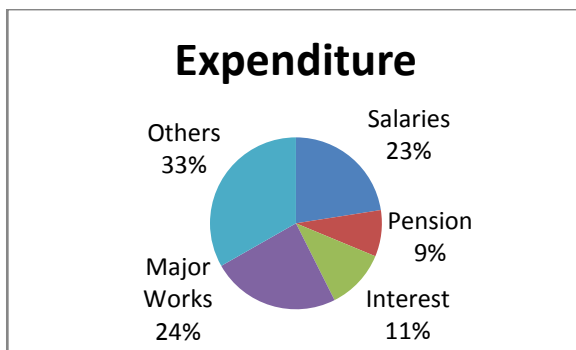
Table 4.4
Revenue expenditure from 2016-17 to 2021-22 (BE)
(₹ in crore)

Years	Revenue Expenditure	% Change
2016-17	7581.92	
2017-18	9252.29	22.03
2018-19	9563.61	3.36
2019-20	9767.11	2.12
2020-21 (RE)	12786.14	30.91
2021-22 (BE)	14729.03	15.19

Source: Budget at a glance, Government of Goa.

There has been an increasing trend of expenditure over the years. In 2021-22 (BE), the revenue expenditure is estimated at ₹ 14729.03 crore with a growth rate of 15.19% as compared to 2020-21 (RE)

Chart 4.5
Break up of revenue expenditure 2021-22 (BE)



The above pie chart shows the break-up of revenue expenditure for the year 2021-22 (BE). It can be seen that, highest share 33% is incurred on others followed by Major works (24%), Salaries (23%), Interest (11%) and Pension (9%).

II. CAPITAL ACCOUNT

The Capital Account deals with expenditure usually met from sources other than current revenue e.g.

borrowings, advances, and receiving of loans and advances with the object either of creating concrete assets of material character or of reducing recurring liabilities.

Capital Receipts

Capital receipts are classified into four groups i.e. internal debt, loans and advances from Central government, non-debt capital receipts and public account – net (i.e. receipts from public account minus expenditure under public account).

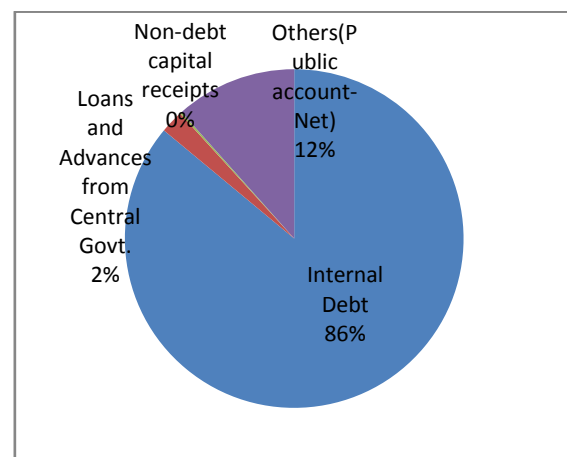
The capital receipts for 2021-22 (BE) is estimated at ₹ 3631.84 crore which is an increase of 12.21% over 2020-21 (RE).

Table 4.5
Capital receipts from 2016-17 to 2021-22 (BE)
(₹ in crore)

Years	Capital Receipts	% Change
2016-17	1447.15	
2017-18	2527.44	74.64
2018-19	2725.23	7.25
2019-20	3088.61	13.33
2020-21 (RE)	3236.43	4.78
2021-22 (BE)	3631.84	12.21

Source: Budget at a Glance, Government of Goa

Chart 4.5
Break up of capital receipts 2021-22 (BE)



Capital receipts for the year 2021-22 (BE) consists of internal debt (86%) followed by Other Public Account- Net (12%), loans and advances from

Central Government (2%) and negligible share of non debt capital receipts.

III. Public Debt

The total Public Debt of the State as on 31st March 2022 (Estimated) stands at ₹ 20824.86 crore. Public debt of the State is showing an increasing trend. The public debt as on 31st March 2017 was ₹ 12395.42 crore which increased by 22.78% to ₹ 15219.56 crore in 2019-20. Major component of the Public Debt is Market loans which is estimated at

₹ 17160.00 crore for 2021-22 (BE) which is 82.40% of the total debt. The second major component of Public Debt is from Central loans and NSSF which is estimated at ₹ 2650.00 crore followed by loans from NABARD which is ₹ 980.00 crore (2021-22 BE). The Debt/GSDP ratio has increased from 19.37% in 2018 to 23.29 in 2022 (Estimated).

The position of the State's public debt as on 31st March for the period 2017 to 2022 is given in Table 4.6.

Table 4.6
Public Debt of State as on 31st March (₹ in crore)

Sr. No	Type of loan	2017	2018	2019	2020 (Act)*	2021 (RE)	2022 (Est.)
1	Central Loan and NSSF	3963.20	3763.03	3541.95	3323.29	3031.95	2650.00
2	Market Loans	7760.00	9160.00	11010.00	12410.00	14110.00	17160.00
3	Loans from LIC	7.75	6.11	4.50	3.31	2.22	0.00
4	Loans from NDCDC	0.60	0.58	0.41	0.41	0.41	0.26
5	Loans from NABARD	596.16	620.14	607.93	686.93	765.93	980.00
6	Loans from PFC	67.44	61.24	54.77	48.30	41.83	34.60
7	Loans from HUDCO	0.27	0.00	0.00	0.00	0.00	0.00
	TOTAL	12395.42	13611.10	15219.56	16472.24	17952.34	20824.86

Source: Budget at a glance, Government of Goa.

IV. DEFICIT INDICATORS OF THE STATE

The deficit indicators of the State mainly comprise of Revenue surplus / deficit, Fiscal deficit, Primary surplus / deficit.

Table 4.7
Deficit Indicators from 2017-18 to 2021-22 (BE) (₹ in crore)

Year	Revenue Surplus (+)/Deficit (-)	Fiscal Deficit (-)	Primary Surplus (+) / Deficit (-)
2017-18	510.62	1730.19	2974.48
2018-19	355.14	1799.64	3144.09
2019-20	(-)218.75	2060.11	595.02
2020-21 (RE)	(-)133.27	2416.66	660.46
2021-22 (BE)	58.47	2650.53	757.01

Source: Budget at a glance 2021-22, Government of Goa

The State is in revenue surplus and it is estimated at ₹ 58.47 crore for 2021-22 (BE).

In 2020-21 (RE) and 2021-22 (BE) the primary surplus is estimated at ₹ 660.46 crore and ₹ 757.01 crore respectively.

Revenue Collected from various Departments

Registration Department

The Department of registration has collected registration fees on documents registered under Registration Act, 1908, Registration of Marriage, fees for issue of Birth and Death Certificate, fees towards Registration of Notarial Deeds, fees collected under Change of Name and Surname Act, 1990, Partnership Firms,

Societies Registration Act 1860, Marriage Certificate Correction, Fees collected under Goa Reconstruction of Registers and Records Act, 2005. The revenue collected by the Department is given in table 4.8.

Table 4.8
Revenue Collected
(₹ in crore)

Year	Revenue Collected
2019-20	145.37
2020-2021	132.35
2021-2022 (till Dec 2021)	201.59

Source: Registration Department

Commercial Taxes Department

The Commercial Tax Department is the revenue generating arm of the Government and collects indirect taxes such as GST, VAT, etc., The tax collected from 2019-20 till 2020-21 (upto December 2021) is given in Table 4.9

Table 4.9
Revenue Collected
(₹ in crore)

Year	Tax Collected
2019-20	4287.49
2020-2021	4691.56
2021-2022 (till Dec 2021)	5470.16

Source: Commercial Tax Department

Town & Country Planning Department (TCP)

Revenue is collected through infrastructure processing fees for zoning certificates, NOC under 49(6), fees for change of Zone under Sec16B of the Act, fees under FAR, etc. The tax collected by the Department is given in table 4.10

Table 4.10
Revenue Collected
(₹ in crore)

Year	Amount
2019-20	48.68
2020-2021	28.48
2021-2022 (till Dec 2021)	34.05

Source: TCP Department

Excise Department

Revenue is generated through fees for grant of liquor license, recording of labels, export import permits, grant of new licenses, transfer and shifting of existing licenses, etc. Revenue generated by the Department from 2019-20 to 2021-22 (upto December 2021) is given in Table 4.11.

Table 4.11
Revenue Collected
(₹ in crore)

Year	Amount
2019-20	491.80
2020-2021	514.91
2021-2022 (till Dec 2021)	561.25

Source: Excise Department

Transport Department

Revenue is collected from registration of vehicles, permit of vehicles, license fees, etc. The detail of revenue collected is given in table 4.12.

Table 4.12
Revenue Collected
(₹ in crore)

Year	Amount
2019-20	299.32
2020-2021	233.32
2021-2022 (till Feb 2022)	252.38

Source: Transport Department

Captain of Ports (COP)

The Department generates revenue from port dues, anchoring charges/mooring charges, BARGE TAX, fishing canoes registration/renewal charges fees, COP jetty /vessel charges, NOC fees etc.

Table 4.13
Revenue collected during 2017-18 to 2021-22
(₹ in crore)

Year	Amount
2019-20	6.86
2020-2021	8.22
2021-2022 (till Feb 2022)	7.02

Source: Captain of ports

Public Financial Management System (PFMS)

In order to monitor release and utilization of funds under all schemes of Government of India, Public Financial Management System was started from 2009 with the aim of tracking funds released under all schemes of GOI and real time reporting of expenditure at all level of programme implementation.

In order to implement the central scheme State Project Management Unit (SPMU) has been set up in the State which provides handholding /technical support for the proper implementation of PFMS.

Goa has been fully onboarded on Single Nodal Agency (SNA). Total 76 schemes have been marked as SNA.

The process of Separate Budget Head lines for Central Share and State share is under pipeline.

Treasury integration as per the new procedure for release and monitoring of funds has been successfully done. The state shared first SNA file on 24/12/2021 with PFMS.

Release of funds through treasury and Special Purpose Vehicle Route (SPV) to the concerned.

The Government of India (GOI) releases funds to the State for the implementation of the schemes of different sectors. These funds released from GOI are utilized by State Government Departments and SPV through State treasury for the implementation of the schemes. The details of release from 2019-20 to 2021-22 (upto February 2022) is given in table 4.14.

Table no. 4.14
The details of release of funds through treasury and SPV from 2019-20 to 2021-22 (upto February 2022)
(₹ in crore)

Year	Amount released		
	PFMS	SPV	Total
2019-20	1227.30	2007.05	3234.35
2020-2021	2161.49	1704.07	3865.56
2021-2022 (till Feb 2022)	2203.63	1568.64	3772.27

Source: State Project Management Unit (SPMU), Goa

CHAPTER 5

INSTITUTIONAL FINANCE

Banking

Goa has an excellent banking network spread in every nook and corner of the State. 46 Banks are operating in the State of which 12 are Public Sector Banks, 17 are Private Sector Banks, 14 Co-operative Banks and 3 Small Finance Banks.

As on 30th September 2021 there were 780 banking offices in the State, of which 652 were commercial and 128 were Co-operative and Small Finance. 483 banking offices are in semi urban areas and 297 in rural areas.

During the last decade the number of banking offices has increased by over 39 %.

All the villages are covered with banking outlets. The Banks have also adopted the Business Correspondent (BC) model/Customer Service Point (CSP) in rural areas which is slowly gaining momentum. BCs enable a bank to expand its outreach and offer limited range of banking services at low cost, as setting up a brick and mortar branch may not be viable in all cases. They cater to the rural customers and making it convenient for the village folks to access the financial system. As on 30/09/2021 there are 52 BCs/CSP operating in the State.

Connectivity issues are still present at some places in the State making it difficult for the CSPs to render smooth service. Government is working on this matter so as to improve the connectivity in the State.

The Banking network as on 30/09/2021 is given in Table 5.1.

Table 5.1
Banking Network

Type	Bank s	Branches	
		North Goa	South Goa
Public Sector	12	218	247
Private Sector	17	96	91
Cooperative	14	55	59
Small Finance	3	1	3
Total	46	380	400

The number of banking offices from 1980 – 81 till 2021-22 (September 2021) is given in Table 5.2.

Table 5.2
Number of Banking Offices

Sl. No	Year	No. of banking offices
1	1980-81	258
2	1985-86	297
3	1990-91	306
4	1995-96	375
5	2000-01	444
6	2005-06	476
7	2010-11	570
8	2015-16	787
9	2020-21	786
10	2021-22 (Sep 2021)	780

Deposits

Goa has a very high rate of savings. The Deposits in banks, as on 30th September 2021 were ₹ 93618.00 crore. The deposits in banks have increased by 9.83% over the previous year i.e ₹ 85235.58 crore as on September 2020. The per capita bank deposit is ₹ 600501. During the last decade the deposits have increased by 174.02 %.

Table 5.3 shows the comparative statement of Deposits as on 30th September for 2020 and 2021

Table 5.3
Deposits (₹ in crore)

Banks	As on 30 th September	
	2020	2021
Nationalized	61908.50	66595.02
Private Sector	17684.25	21650.86
Co-operative	5535.09	5205.06
Small Finance	107.74	167.21
TOTAL	85235.58	93618.15

It is seen from the above table that the percentage increase in Deposits for Nationalized Banks, Private Sector banks over the previous year were 7.57% and 22.43% respectively whereas there was a decrease in deposits in Co-operative Banks by 5.96%. The deposits in the Small Finance banks rose by 55.20%. Table 5.4 shows trend in Bank Deposits from 1980-81 till 2021-22 (September 2021).

Table 5.4
Trend in Bank Deposits

Year	Deposits (₹ in crore)	Per capita deposits (in ₹)
1980-81	380.92	3779
1985-86	800.92	7030
1990-91	1636.88	13993
1995-96	3714.31	29318
2000-01	8415.90	62618
2005-06	17752.66	122152
2010-11	34164.54	234369
2015-16	63339.00	418909
2020-21	90236.44	578810
2021-22 (Sep 2021)	93618.15	600501

Credit

The Credit given by the banks as on 30th September 2021 were ₹ 30609.13 crore which has shown an increase of 10.87% over the previous year. During the last decade the advances given by the banks have increased by 169.38%

Table 5.5
Credit (₹ in crore)

Banks	As on 30 th September	
	2020	2021
Nationalized	18377.59	19094.10
Private Sector	5475.42	7845.46
Co-operative	3741.57	3635.44
Small Finance	14.61	34.31

Table 5.6 shows trend in Bank Credit from the year 1980-81 till 2021-22 (September 2021)

Table 5.6
Trend in Bank Credit

Year	Credit (₹ in crore)	Per capita Credit (in ₹)
1980-81	171.18	1698
1985-86	289.11	2537
1990-91	640.94	5479
1995-96	1248.11	9852
2000-01	2405.16	17896
2005-06	4255.00	29280
2010-11	11363.00	77950
2015-16	19385.00	128208
2020-21	30267.02	194144
2021-22 (Sep 2021)	30609.13	196338

It is seen from table 5.5 that there is an increase in Credit given by Nationalized Banks and Private Sector banks over the previous year of 3.90% and 43.28% respectively whereas there was a decrease in Credit given by Co-operative Banks by 2.84%. The credit given by Small Finance Banks have shown a tremendous increase of 133.61% over the previous year

Credit-Deposit (CD) Ratio

The Credit Deposit ratio in Goa is 32.70 as on September 2021 as compared to 32.39 as on September 2020.

Table 5.7
Credit Deposit Ratio

Banks	As on 30 th September	
	2020	2021
Nationalized	29.69	28.67
Private Sector	30.96	36.24
Co-operative	67.60	69.84
Small Finance	13.56	20.41

It is seen from table 5.7 that Co-operative Banks have topped the list as far as credit deposit ratio is concerned. The Credit Deposit ratio of

the Nationalized banks has decreased as compared to others over the previous years.

Table 5.8 shows the trend in Credit Deposit Ratio from the year 1980-81 till 2021-22 (September 2021).

Table 5.8
Trend in Credit Deposit Ratio

Sl. No	Year	CD ratio (₹ in crore)
1	1980-81	44.9
2	1985-86	36.1
3	1990-91	39.2
4	1995-96	33.6
5	2000-01	28.6
6	2005-06	24.0
7	2010-11	32.61
8	2015-16	31.00
9	2020-21	33.54
10	2021-22 (Sep 2021)	32.70

Annual Credit Plan (ACP) of Banks

The performance under Annual Credit Plan 2021-22 upto 30th September 2021 is given in Table 5.9 below.

Table 5.9
Performance under ACP

Activity	Target	Achievement	(₹ in crore)
			% Achievement
Crop loans	190.00	225.98	118.93
Agri term loans	470.00	247.40	52.64
Agri Infrastructure	40.00	0.62	1.55
Ancillary Activities	240.00	114.77	47.82
MSME	3250.00	1692.94	52.09
Export Credit	20.00	0.00	0.00
Education	120.00	26.77	22.31
Housing	450.00	116.64	25.92
Social Infrastructure	3.00	0.01	0.33
Renewable energy	40.00	0.19	0.48
Others	277.00	150.57	54.36
TOTAL	5100.00	2575.89	50.51

A comparative statement of the achievement under Annual Credit Plan 2020-21 and 2021-22 as on 30th September of the respective years is given in Table 5.10.

The disbursement under Crop Loan was ₹ 225.98 crore against the annual target of ₹ 190.00 crore thereby registering a noteworthy achievement of 118.93%. The disbursement under crop loan increased from ₹ 120.67 crore as on 30/09/2020 to ₹ 225.98 crore as on 30/09/2021.

The total disbursement under Agriculture term loan was ₹ 247.40 crore, an achievement of 52.64% of annual target for 2021-22 as compared to 22.33% achievement during the corresponding period last year.

The overall disbursement under Agriculture sector upto quarter ending September 2021 was ₹ 588.77 crore, an achievement of 62.64% of the annual target as compared to achievement of 30.10% during the same period last year.

The disbursement under Other Sectors upto September 2021 was ₹ 1987.12 crore against a annual target of ₹ 4160.00 crore, an achievement of 47.77% of the annual target showing an increase of 17.97 over the previous year.

Table 5.10
Achievements under ACP

Activity	% of Achievement as on 30 th September	
	2020	2021
Crop loans	35.18	118.93
Agri term loans	22.33	52.64
Agri Infrastructure	6.69	1.55
Ancillary Activities	52.14	47.82
MSME	35.80	52.09
Export Credit	7.55	0.00
Education	10.84	22.31
Housing	12.42	25.92
Social Infrastructure	2.66	0.33
Renewable energy	0.05	0.48
Others	76.67	54.36
TOTAL	29.85	50.51

Review of Priority Sector Advances (PSA)

Performance under Priority Sector Advances, DIR and Weaker Section etc. as on 30.09.2021 is given in Table 5.11 below:

Table 5.11
Performance under PSA

(₹ in Crores)

Sr. No.	Parameters	30.09.2020	30.09.2021
i	Total Deposits	85236.00	93618.00
ii	Total Advances	27609.00	30609.00
iii	C.D. Ratio	32.39	32.70
iv	Total PSA outstanding	7531.08	9323.87
	% of PSA to Total Advances	31.40%	35.63%
v	DIR Advances	2.35	12.04
	% of DIR Adv. to Total Advances	0.01%	0.04%
vi	Weaker Section Advances	1126.00	1943.37
	% of Weaker Sec. Adv. to Total Adv.	4.69%	6.35%
vii	SC/ST Advances	116.22	121.08
	% of SC/ST*Adv. to Total Advances	0.48%	0.37%
viii	Advances to Women	2037.00	3962.21
	% of Adv. to Women to Total Adv.	8.49%	12.94%

* As per RBI directives the base for calculating % of Priority Sector Advances is Total Advances of March 2021.

The level of total priority sector advances as on 30/09/2021 was ₹ 9323.87 crore i.e. 35.63% of the total advances. The level of PSA has increased by 23.80% as compared to the same period last year.

The level of advances to Women has increased by ₹ 1925.21 crore i.e. from ₹ 2037.00 crore as on 30/09/2020 to ₹ 3962.21 crore as on 30/09/2021.

Zero Balance Accounts

There are 14755 accounts as on September 2021 as compared to 13981 accounts as on September 2020.

Aadhaar seeding

Achievement under Aadhaar seeding is 80.92% as on September 2021 as compared to 80.68% as on September 2020.

Government Security schemes

Table 5.12
Achievements (as on 30/09/2021)

Name of the Scheme	No. of beneficiaries
Pradhan Mantri Jeevan Jyoti Bima Yojana	252489
Pradhan Mantri Suraksha Bima Yojana	685331
Atal Pension Yojana	67145
National Pension Scheme	3190

Pradhan Mantri Jan Dhan Yojana (PMJDY)

The Deposits in PMJDY accounts for September 2021 quarter is ₹ 116.75 crore. There is an increase of ₹ 9.80 crore as compared to September 2020 (₹ 106.95 crs). As regards, zero balance accounts, Banks are making efforts to fund all the remaining accounts wherever feasible. These accounts pertain to migrant labourers who are not available at the last recorded address, nor reachable on the registered mobile number.

Pradhan Mantri MUDRA Yojana (PMMY)

Under the PMMY, there are 3 types of loans i.e. Shishu (upto ₹ 50000/-), Kishore (₹ 50,001 to ₹ 5 lakh) and Tarun (₹ 5 lakh to ₹ 10 lakh). Achievement for 2021-22 as on 30.09.2021 for the State of Goa under all three categories of loans is given below in table No. 5.13.

Table 5.13
Loan disbursed PMMY

Category	No. of A/Cs	Amount Disbursed (₹ in crore)
Shishu	2168	6.55
Kishor	3646	59.17
Tarun	1006	59.95
TOTAL	6820	125.67

Position of PMMY Accounts

The position of outstanding amount and NPA as on 30/09/2021 is given in Table 5.14 and 5.15 respectively.

Table 5.13
Outstanding Amount under PMMY

Particulars	Outstanding	
	No. of accounts	Amount (₹ in Crore)
Shishu	18774	38.39
Kishore	19633	302.37
Tarun	5341	279.53
Total	43748	620.29

Table 5.14
NPA under PMMY

Particulars	NPA	
	No. of accounts	Amount (₹ in Crore)
Shishu	2105	5.04
Kishore	1665	27.51
Tarun	477	26.7
Total	4247	59.25

9.55% of the total loan given under PMMY is coming under NPA

Atmanirbhar Schemes as on 30/09/2021

Various schemes/programmes have been implemented by the Government during the pandemic period.

The present position of lending under various Kisan Credit Card as on 30/09/2021 is given in Table 5.15.

Table 5.15
Kisan Credit Card (KCC)

Sector	Number of KCC	Outstanding amount (₹ in crore)	KCC card activated
Fisheries	553	9.97	89
Animal Husbandry	1675	20.19	465
Crops	9190	94.35	2571

Prime Minister's Street vendor Atmanirbhar Nidhi is a special micro credit facility for street vendors. The details of lending in given in Table 5.16

Table 5.16
PM SVANidhi

Total Applications Sourced	Sanctioned Amount (₹ in crore)	Disbursed Amount (₹ in crore)
1363	12.01	11.72

4735 Rupay cards have been issued to farmers under Fisheries (141), Animal Husbandry (495) and Crops sector (4099)

Stand - up India status as on 30/09/2021

The total disbursement under Stand-up India as on 30/09/2021 was ₹ 11.83 crore benefitting 76 applicants. The outstanding and NPA amount is given in Table 5.17 below.

Table 5.17
Stand-up India

Outstanding		NPAs	
No of Accounts	Amount (₹ in crore)	No of Accounts	Amount (₹ in crore)
421	54.83	76	11.83

Self Help Group

The status of Self help Groups as on 30/09/2021 is given in Table 5.18.

Table 5.18
Status of Self help Groups

Total number of SHGs	5688
Outstanding (₹ in crore)	47.33
Total number of SHGs Credit Linked During the FY	429
Amount (₹ in crore)	12.09

Interventions of National Bank for Agriculture and Rural Development (NABARD) in Goa

Rural Infrastructure Development Fund (RIDF)

- NABARD has cumulatively sanctioned financial assistance of ₹ 2623.56 crore and disbursed ₹ 1792.33 crore, as on 31 January 2022 in the state of Goa. The total number of projects supported as on 31st January 2022 stood at 216.
- During the year 2021-22, RIDF loans aggregating ₹ 319.00 crore have been sanctioned to State Government, towards five projects, viz. Phase II building of Goa Dental College, Construction of Super Speciality Block at Goa Medical College, Expansion of Saligao Solid Waste Treatment Plant, Chandel Water Treatment Plant and Lift Irrigation Malkarnem, Nagvem and Zanodem. NABARD has disbursed aggregate loan assistance of ₹ 283.76 crore during the year 2021-22.
- **NABARD Infrastructure Development Assistance (NIDA):**
There are two on-going projects viz. Sewerage networks in

Porvorim (Phase I) and Ponda Sewerage Scheme (on-going balance works), which were sanctioned loan assistance of ₹ 70.69 Crore and ₹ 64.87 crore respectively under NIDA. The Sewerage and Infrastructural Development Corporation of Goa Limited (SIDCGL) is implementing both the projects.

- **Refinance**

NABARD has sanctioned refinance assistance of ₹ 5.00 crore to Goa State Cooperative Bank Ltd during FY 2021-22. NABARD has also provided refinance support to scheduled commercial banks in the State Goa towards long term lending.

- **Cooperative Development Fund(CDF):**

NABARD continued to support good working PACS for upgrading their infrastructure to improve their service delivery.

- **Demonstration Mobile Van:**

NABARD has supported Goa State Cooperative Bank to conduct Financial and Digital Literacy Programs, handheld projector, online UPS system. These interventions would enable Goa State Cooperative Bank to expand its outreach in an inclusive manner, by covering financially excluded households.

- **Farm Sector Promotion Fund:**

- Under Central Sector Scheme on 'Formation and Promotion of

10000 Farmer Producers Organization (FPOs) , NABARD has sanctioned ₹ 1.25 crore for promotion of 5 FPOs in the North Goa District.

- NABARD provided grant assistance of ₹ 7.74 lakh to ICAR - Central Coastal Agriculture Research Institute for the project on Ornamental Fisheries for popularizing ornamental fisheries in the State of Goa.
- ICAR-CCARI has been provided grant assistance of ₹ 8.70 lakh for 2020-21 to 2021-22 for executing a project on “Empowerment of farmers through adoption of sustainable and Eco-friendly Integrated Pest and Disease Management technologies in major vegetables crops in Goa”. The interventions will reduce dependence on chemical insecticides and is safe to use, environment friendly and easily adoptable, thus encouraging organic farming

• Gramya Vikas Nidhi

- During the year 2021-22, NABARD has sanctioned 2 Rural Marts to Village Organisations in blocks viz. Harvalem (Bicholim Block) & Margao (Salcete Block).
- These marketing outlets benefitted members of SHGs for providing their various products easy access to the market. It gave them opportunity for income generation and to be self-dependent.

• Marketing support

NABARD supported the following exhibitions during the year

- 3 exhibitions organised on the occasion of Ganesh Chaturthi viz., Om Sai Village Organisation- Nanoda, Nakshatra Village Organisation- Siolim & Freedom Village Organisation-Parra
- 11 exhibitions on occasion of Diwali (1) Jijamata VO, Poriem – Sattari Goa (2) Perna VO, Querim - Sattari Goa (3) Galaxy VO, Nerul - Bardez Goa (4) Jagruti VO, Nachinola -Bardez Goa (5) Sanjivani VO, Uccassaim - Bardez Goa (6) Ujjala VO, Bastora - Bardez Goa (7) Ajoba VO, Harvelem - Bicholim Goa (8) Shakti VO, Davorlim - Salcete Goa (9) Urja VO, Alcolna - Ponda Goa (10) Ashirwad VO, Poinguinim - Canacona Goa(11) SreeKartike VO, Mayem - Bicholim Goa.
- 7 exhibitions on the occasion of Christmas at (1) Swarna Nakshatra VO, Siolim, (2) Galaxy VO, Nerul, (3) Sarthak VO, Arpora, (4) Sanjivani VO, Uccassaim, (5) Adarsh VO, Verla Canca, (6) Sawli Vo, Quitol and (7) Rose VO, Ambaulim.

Co-operative Societies

As on 31/03/2021, there are 5203 Co-operative Societies registered in the State for welfare of people. The number of Co-operative Societies have increased by 251 as on March 2021 as compared to 2019.

The Performance of Cooperatives Societies from 2019-2021 is given in table 5.19.

Table 5.19
Performance of Co-operative Societies

Particulars	Position as on 31 st March, 2021		
	2019	2020	2021
No. of Coop. Societies	4952	5078	5203
Membership (No. in lakh)	11.77	12.64	14.35
Paid up Share Capital (₹ in crore)	448.23	395.20	549.21
Working Capital (₹ in crore)	8286.59	8692.51	10821.17
Deposits (₹ in crore)	7020.20	7333.51	9161.61
Advance Loans (₹ in crore)	3037.16	2631.35	3744.57
Outstanding Loans (₹ in crore)	4409.03	4607.98	6256.82

CHAPTER 6

AGRICULTURE & ALLIED SECTOR

Government aims to double the farmer's income by 2022 for which various beneficiary oriented programmes like distribution of high yielding variety of paddy seeds at 50% subsidy, agro machineries at subsidized rates, assured prices for paddy sugarcane oil palm and cashew nuts

The State is providing assistance to agriculture at all levels to provide substantial returns to rural people. Assistance is provided for farmer from land preparation to the extent of marketing of the produce. The Agriculture and allied sectors grew at a negative rate of 6.95% during 2019-20 (as per the provisional estimate of state income) due to climatic conditions but in 2020-21 it became possible to achieve an improved growth of 2.13% with the help of various government measures to enhance credit availability, improve investment, create market facilities and promote

infrastructure development in the agriculture & allied sector & time intervention of Government in the form of Swayampurna Goa coupled with other growth promoting schemes on the basis of Atma Nirbhar Bharat (ANB) Abhiyan during Covid-19 pandemic.

Gross Value Added (GVA) in Agriculture & Allied sector

As per provisional estimates of State income the share of agriculture and allied sectors in Gross Value Added (GVA) at current prices is ₹ 550600 lakh for the year 2021-22(A) as against ₹ 496003 lakh for the year 2019-20(P). The GVA of Agriculture & Allied sector and share of GVA of Agriculture & Allied sector for the last six years is given in the Chart No.6.1 and Chart No. 6.2 respectively.

Chart No.6.1

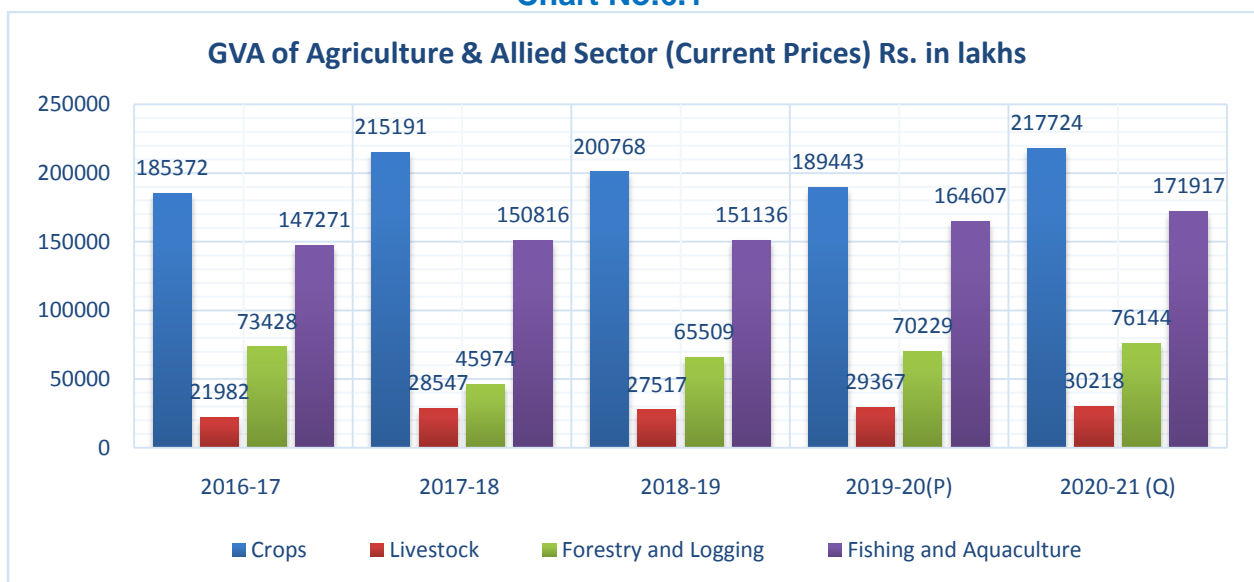
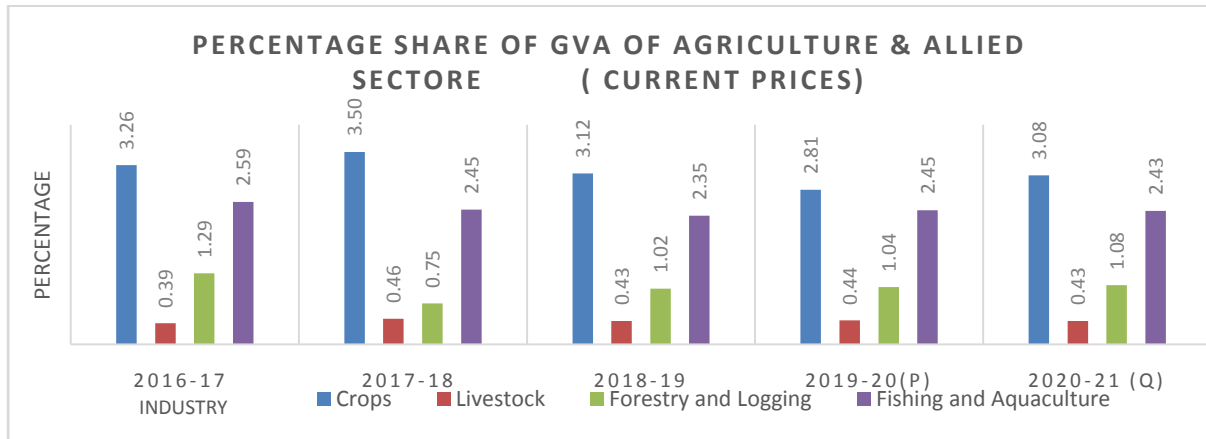


Chart No. 6.2



It is observed that there is high growth in crop sector as compared to growth in allied sector. Also share of the fishing and Aquaculture sector and

forestry and logging in total agricultural GVA has been improving whereas livestock has not shown any improvement.

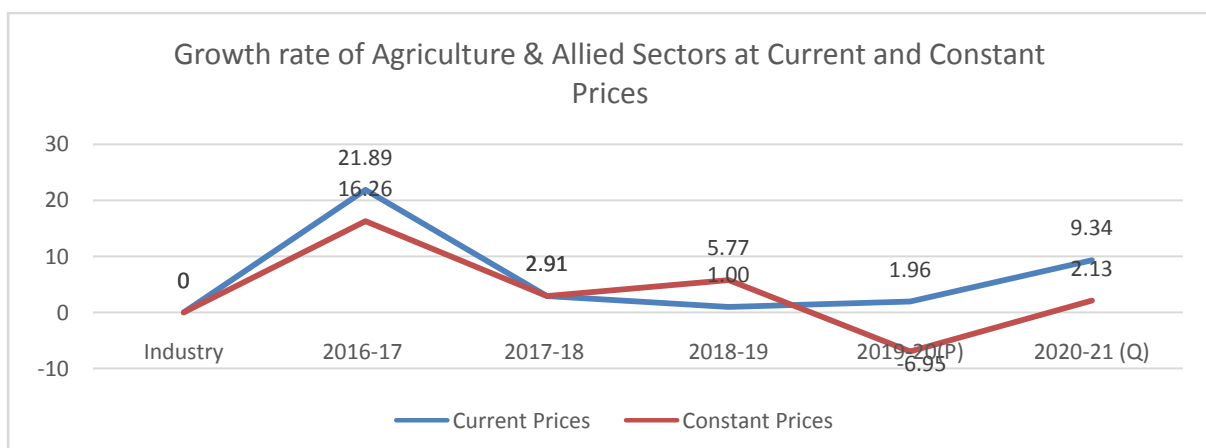
Table No.6.1
Growth of Agriculture and Allied sectors (Current Prices)

Sl No.	Industry	2016-17	2017-18	2018-19	2019-20(P)	2020-21 (Q)
1	2	3	4	5	6	7
1.	Agriculture, forestry and fishing	21.89	2.91	1.00	1.96	9.34
1.1	Crops	17.49	16.09	-6.70	-5.64	14.93
1.2	Livestock	-6.55	29.86	-3.61	6.72	2.90
1.3	Forestry and Logging	181.18	-37.39	42.49	7.21	8.42
1.4	Fishing and Aquaculture	2.43	2.41	0.21	8.91	4.44

Growth of Agriculture and Allied sectors depicts four constituents of agriculture and allied sectors namely crops, livestock, forestry and Logging and fisheries and aquaculture. It is observed that all sub sectors have been experiencing buoyant

growth and growth in agriculture and allied is buoyed by the performance of forestry and logging. The growth rate of Agriculture & Allied Sector at current and constant prices for last five years is depicted in Chart No. 6.3.

Chart No. 6.3



Policy Decisions

Quepem Taluka has been included under Western Ghat Development programme for the benefit of farmers from this taluka.

Government has approved to include GST component of Agriculture machineries in the standard cost of Agriculture machineries while calculating subsidy on Agriculture machineries, thus benefitting farmers financially.

New initiative to improve service delivery

M-Krishi Project under RKVY – RAFTAR is taken up which will help farmers to get better information.

Purchase of machineries scheme has been amended wherein farmers are given the facility to purchase any agriculture machineries by availing “At Source Subsidy”, thereby reducing the financial burden on farmers while purchasing high ended Agriculture machineries

Setting up of Centre of Excellence

The Centre of Excellence is proposed to be set up under Indo Israel Agriculture Project with technical collaboration with Israel Agency. Detailed project report for setting up of Centre of Excellence was submitted to Government of India for assistance under Mission for Integrated Development of Horticulture (MIDH).

The site visits by Shri Yair Eshelle, Agriculture Attache, MASHAV, Israel was done on 31/12/2021 for guidance. The Centre of Excellence will demonstrate a state of art, technical advances in Agriculture field of vegetable and Horticulture production. The estimated cost of Centre of Excellence is ₹ 11.17 crore.

To empower farmers to tide over the shortage of labour and improve

efficiency of agricultural operation, utmost impetus is given to Custom Hiring Centres. The department has assisted in establishing around 114 farm machinery banks in the state.

Major Achievements during the year 2021-22 (upto December 2021)

1445 Agro machineries such as Tractor, Power Tiller etc were subsidized to tune of ₹ 67.89 lakh which has helped in agriculture mechanization.

Under Custom Services i.e. 50% subsidy on hire service charges of various agricultural machinery for land preparation, 13318 farmers have been benefitted incurring an expenditure of ₹ 94.99 lakh.

1038 tonnes locally produced vegetables were procured by Goa State Horticultural Corporation Ltd., worth ₹ 313.60 lakh benefitting 1047 farmers thereby giving boost for marketing.

Under Organic Inputs scheme 510 farmers have benefitted covering an area of 734.80 ha incurring an expenditure of ₹ 30.25 lakh

Under the scheme “Government Intervention for Control of Price Rise”, 16832.25 tonnes of vegetables and 264 tonnes of groceries were sold to general public at subsidized rates through Goa State Horticultural Corporation.

17 students are sponsored for pursuing graduation in Agriculture Sciences at Dr. B.S.K.K.V. Dapoli in Maharashtra State. 4 famers were felicitated under “State Agriculture Awards” for their outstanding work in Agriculture. 90 youth between the ages of 18 to 45 were trained for plucking of Coconuts. 5 Friends of Coconut Tree (FoCT) training programme were held under Coconut Development Board scheme.

68,907 fruit plants were distributed and 2003.88 kgs vegetable seeds were procured for sale to the farmers on 50% subsidy under various schemes and 54000 coconut seed nuts were sown on governmental farms for raising of Coconut Nursery.

Khazan lands of nearly 103.34 ha belonging to 10 Tenants Associations have been protected from damages due to saline water by strengthening & repairing the Khazan bunds.

5090 Soil Samples were collected from farmers and analyzed in the Soil Testing Laboratory. This has helped the farmers for application of correct doses of fertilizers thereby saving on input costs.

3 Block Level Training Programmes were organized at Mapusa, Margao and Quepem to disseminate latest advances in Coconut cultivation under Banner “Scientific Production Technology and Value Addition in Coconut”. 150 farmers were benefitted under the said programme.

Production of Marigold

Farmers were promoted for marigold cultivation to reduce the dependency on neighbouring state especially during festive season. More than 280 farmers were supplied with good quality hybrid marigold seedlings.

The area under cultivation has been increased from 2 ha to 20 ha. More than 3 lakh seedlings were supplied to the farmers under various schemes. Of this seedlings about 2 lakh seedlings were raised in Goa itself by the Self Help Groups promoted by the departmental agencies like Agriculture Technology Management Agency (ATMA). From the area cultivated, income of about ₹50 lakh was generated in the rural area.

Production of Turmeric

Farmers were promoted for turmeric cultivation. Farmers were supplied with

high yield turmeric varieties of Salem, Raja Puri and Pratibha. Financial assistance @ ₹ 60,000/- per Ha amounting to ₹ 10.20 lakh was provided to the farmers. The area under cultivation during 2021-22 is 17 Ha

ANIMAL HUSBANDRY

Animal Husbandry sector plays an important role in the State economy. This sector provides nutritious food of animal origin and self-employment opportunities to Socio Economically backward strata of the society, underprivileged and unemployed youth, small and marginal farmers and Agricultural labourers. It continues to be a major component of all strategies for development of the agricultural Sector.

Major Achievements and new initiatives taken up during 2021-22 (upto Dec, 21).

District Society for Prevention of Cruelty to Animals has been notified in both Districts of Goa.

Through the Short Scheme of Mission Rabies it is possible to control rabies disease in the State and the State has been declared as the First Rabies Controlled State in the Country.

Disaster Management Plan has been approved and being implemented in the State of Goa.

Under e-District Plan, 13 (Thirteen) Departmental Schemes are made online on <https://goaonline.gov.in>.

The State has successfully implemented Foot & Mouth Disease (FMD) vaccination for 53271 animals under 17th round this year and till date total 75192 animals have been tagged under Information Network for Animal Productivity and Health (INAPH).

Under Rashtriya Gokul Mission, the State has implemented the Scheme and Artificial Insemination are being done by using Conventional and Sex Sorted Semen.

2146 KCC Cards have been applied and submitted to various nationalized banks and an amount of ₹ 2131.81 lakh has been sanctioned. Every effort is being done to achieve maximum coverage.

6 (six) proposals have been submitted under Rashtriya Krishi Vikas Yojana (RKVY) and 05 (five) numbers of State Schemes components are being dovetailed with Central Schemes.

Government of India has sanctioned ₹ 20.00 lakh for purchase of 2 (two) Mobile Veterinary Units for both the Districts of Goa.

Program Management Unit (PMU) bills of ₹ 26.80 lakh is paid to Goa Electronics Ltd. for setting up of 24 x 7 Call Centre under National Animal Disease Control Programme (NADCP).

₹ 43.42 lakh has been utilized for purchase of Cold Cabinets, Vaccination items, Development of Software, remuneration to vaccinators and awareness under NADCP which is 100% funded by the Government of India.

“Animal Health and Welfare Policy 2020-25” has been formulated to strengthen overall animal health cover, achieving animal welfare, prevention of cruelty to animals, modernization and automation of Government Farms, strengthening of Extension wing, to increase farm animal production, to improve training for self-sufficiency, better co-ordination with Agriculture Department.

1,30,424 vaccinations were performed to different animals and 1,64,203 animals were treated throughout the State.

The Annual Estimated Milk production is 60138.93 tonnes, Egg Production is 374.79 lakh and Meat production is 6051.69 tonnes as per Integrated Sample Survey.

“Human Resource Development in Animal Husbandry Extension” Scheme is being formulated to assist extension activities/training in the State for the Stake holders.

Construction of new Veterinary Hospital, Sonsodo Margao is in progress at an estimated cost of ₹ 381.00 lakh.

Key Village Scheme: 12,445 Artificial Inseminations (A.I.) were performed on cattle/ buffaloes /indigenous cows with Conventional and Sex Sorted Semen and 5,254 calves were born this year with A.I.

Government Poultry Farm – 35,533 chicks were hatched/ born and 28,838 chicks were sold. Also 5,33,147 Eggs Produced and 5,34,892 Eggs Sold/Supplied to public/ Hospitals during the year 2021-22.

Government Piggery Farm - 535 piggings were supplied/ sold to 184 beneficiaries/ farmers.

Total milk production from the Government Livestock Farm, Dhat Mollem is 51,390 ltrs and Cattle Breeding Farm, Copardem is 1,30,748 ltrs.

Kamdhenu Scheme (Sudharit)

The Kamdhenu Scheme has been modified to Kamdhenu Scheme (Sudharit) Amended 2021 with regards to release of subsidy and purchase of animals. Subsidy upto 90% is given to all categories of farmers for purchase of cattle/ buffaloes/indigenous cows. Subsidy shall be released along with insurance premium and transport cost incentives directly to beneficiary's loan account.

The beneficiary can avail loan from any area Co-operative or Nationalized Banks in the State of Goa or from any designated branch of the Bank unlike any Co-operative bank earlier, for the

purchase of animals. Similarly, limit of 20 animals per individual farmer has been lifted. (No limit)

Under Infrastructure component of Kamdhenu Scheme (Sudharit) Amended 2021, subsidy @ 80% of construction cost is given for a cattle shed with an area of 5.4 Sq. mtr. per animal and the construction cost @ ₹ 6000/- per sq. mtr. Unit could be of 10 Milch Animals limited to maximum of 20 Milch Animals.

Under this scheme, 296 farmers purchased 1308 animals and amount of ₹ 8.72 crore was released as Subsidy.



Incentives to Milk Producers

Government of Goa has an ambitious plan to develop Dairy Sector and to make Goa Self-sufficient in milk production in the near future. Keeping this in view the Government has come forward with a scheme where in composite subsidy @ 40% (incentives on Milk @ 32.28% and cattle feed @ 7.72%) on the proceeds of Milk supplied to the Dairy Co-operative Society/Bachat Gat/ Self Help Group as notified by the Government from time to time and is paid on monthly basis

Incentives to the tune of ₹ 2689.15 lakh have been released to the registered farmers as composite subsidy @ 40% (incentives on Milk @ 32.28% and cattle feed @ 7.72%) on the proceeds of Milk supplied to the Dairy Co-operative Society/Bachat Gat/ Self Help Group.



Pashupalan Scheme

The Pashupalan Scheme “Calf to Cow Scheme” is successfully implemented wherein assistance is given for rearing of Cross Bred calves & improved buffalo calves from birth to 27 month.

All the farmers having cross-bred female calves/improved buffalo female calves/Indigenous breed calves namely Sahiwal, Gir & Red Sindhi, either born out of A.I. or calves born to existing cows and buffaloes or bought along with animals under Kamdhenu (Sudharit) Scheme or Western Ghat Scheme or Modern Dairy Scheme/purchased locally under any other scheme of the Government are assisted under this scheme.

1230 new born calves were registered under the Pashupalan Scheme (Calf to Cow Scheme) during financial year 2021-22. 1787 beneficiaries were assisted and ₹ 376.56 lakh has been released as subsidy.



Dairy Equipment Scheme

In order to give a boost to the dairy industry by reducing the practical difficulties of the farmers to purchase the equipments needed for dairy farming and reduce manpower, the Government has introduced payment of subsidy on the dairy equipment and the permissible items are allowed to be purchased under this scheme with 75% subsidy limited to ₹ 2.00 lakh only on the total equipments purchased.

Under this scheme, 38 farmer's application have been sanctioned and ₹ 19.35 lakh of subsidy has been released during the year 2021-22.



Fodder Development Scheme

The objective of the Scheme is to increase green fodder production and make available the various hybrid varieties of green fodder to the farmers for feeding to milch animals in order to increase the milk production and make the State self-sufficient in milk production.



Farmers are also stressed upon the importance of feeding nutritive green grass and encouraged to stop primitive practice of feeding only dry paddy straw. To make available green fodder

to the livestock all the year round, 3 more components have been added to the scheme i.e. Incentive for Hydroponic Green Fodder production, Incentive for Silage production and Incentive for Irrigation (for perennial fodder cultivation only).

Under Cultivation of Green Fodder Scheme, 38 Beneficiaries were assisted for growing Green Fodder under area of 1,97,985 sq.mtr. land and subsidy of ₹ 4.51 lakh has been released

Under the Scheme for "Tribal & Scheduled Caste Families -Dairy kit", farmers were provided a kit of dairy equipments worth ₹ 5,000/-. Due to poor response from farmers, the scheme is now revised to provide subsidy of ₹ 30,000/- for purchase of basic dairy equipment and the scheme is renamed as "Financial Assistance to Dairy farmers belonging to Scheduled Tribes and Scheduled Caste for purchase of basic dairy equipments".

Community Dairy Farming

Government has noticed that the small units of around 10 cow dairy farms are not much profitable to take up as a business entrepreneur. The farmers with limited land holding also find it difficult to expand the existing units due to scarcity of land and other infrastructure requirements.

After going through the feasibility of the schemes, a concept of community dairy farming has been under consideration for long time to facilitate group of people coming together with a common intention to take up dairy farming on a community basis with common infrastructure support.

Therefore, it is proposed to encourage such community dairy farming with minimum 50 milch animals and with latest ultra-modern dairy equipments

such as milk parlour, milk cooler and feed mixing plant etc which can be availed by community group of minimum 5 unrelated members. Under this Scheme, 2 Community Dairy Farming unit applicants were sanctioned and total ₹ 6.50 lakh was released as subsidy.

Interest Subsidy under Agriculture & Allied Sector

The farmers are availing agricultural/allied activities loans for dairy, piggery, poultry etc. The interest of 4% on the loan is payable by the beneficiaries and the interest over and above is borne by the Government.

Financial Assistance for Rearing Broilers, Layers and Low Input Technology Poultry Birds (2018)

The Scheme is focused to settle the issue of economic viability in view of Goan market scenario and prepared a financial assistance scheme so that returns are secured and assured. The scheme will certainly provide an opportunity and will play a pivotal role to revive the poultry activities and boost the sustainable poultry production in the state.

Under this scheme financial assistance is provided to broiler, layer farmers and low input technology birds farmers in order to encourage and enable farmers to venture in for poultry production & increase poultry meat and egg production in the state.

Assistance for (Recurring cost) Rearing of Broilers, Layers and Low Input Technology



Poultry Birds is given @ 20% on Cost of Poultry Feed and 80% on purchase of Day Old Chicks. Under this scheme, 6 beneficiaries were assisted and total subsidy of ₹ 8.41 lakh has been released.

Financial Assistance for Infrastructure of Poultry Farm (2018)

A financial assistance scheme is prepared so that initial Investment is taken care and it will not be burden on the new farmers for bank loan repayment. The Scheme will certainly provide an opportunity and will be a positive step to attract new farmers to start the poultry production activities and boost the sustainable poultry production in the State.

Financial assistance @ 75% of Infrastructure cost limited to maximum of ₹ 6.00 lakh for Broiler Farm and Low Input Technology Poultry Birds and upto ₹ 21.00 lakh on infrastructure cost of Layer Farm is provided. Under this scheme, 2 beneficiaries were assisted and total subsidy of ₹ 5.46 lakh has been released.

Gramashakti–Supply of Low Input Technology Poultry Birds to Rural Farmers (2018)

Under the scheme , the Grown up poultry birds and feed are supplied free of cost to the rural farmers in order to encourage and enable rural farmers to venture in for poultry production & increase poultry meat and egg production and consumption in the State.



The grown up Low Input Technology Poultry Birds (09 Females and 01 male) above the age of seven week will be supplied to the beneficiary after standard prophylactic vaccination along with 10Kg of Poultry Feed. Under this scheme, 200 units consisting of 10 Low Input Technology poultry Birds along with feed were supplied to rural farmer free of cost.

Subsidy of Transport of Poultry Feed

In order to give boost to poultry sector the subsidy of ₹ 200.00 per metric tonne is provided for transport of poultry feed from any State other than Goa to meet the requirements. One (1) beneficiary for transport of poultry feed have been processed for subsidy and an amount of ₹ 0.41 lakh has been disbursed as subsidy during the year 2021-22.

Establishment of Backyard Poultry unit (for SC/ST Families)

Under this scheme, a Scheduled Caste or Scheduled Tribe beneficiary is supplied a Backyard Poultry Unit worth ₹ 2000/- free of cost. This scheme aims at increasing poultry production in small units through the masses of socially and economically backward tribes, primitive tribes or other sections as sizable population of them live in the remote areas. 124 units consisting of 10 Low Input Technology poultry birds along with feed were supplied to SC/ST farmer free of cost under this scheme.

Varah Palan Piggery Scheme

An individual farmer can purchase piglets or adult sows/boars. Under this scheme, subsidy is provided @ 62.5% for males to a maximum of ₹ 9,000/- and @ 74% for females to a maximum of ₹ 8000/- for purchase of piglets/adults pigs to a maximum of 20 females and 02 males. Subsidy for shed construction will be provided maximum @ ₹ 2,000/- per piglet/adult pig.

Subsidy for gobar gas including accessories will be provided @75% for the maximum unit cost of ₹ 50,000/- to the tune of ₹ 37,500/-. Subsidy for the other equipments will be provided @ 75% i.e. ₹ 31,575/- for maximum permissible cost of ₹ 42,100/-. Under this scheme, one farmer has completed the piggery project and availed subsidy of ₹ 0.70 lakh.

Goatery Scheme (Assistance for Goat Rearing)



To motivate farmers to undertake goat farming and to augment the chevon production in the State, The Goatery Scheme is formulated for purchase and rearing of indigenous Goat breeds namely Konkani Kanyal and Osmanabadi which are suitable to the Goan climate. The total cost of the goat unit (10does/Female+1buck/Male) shall be limited to ₹ 67,500/-. One time subsidy is released at the rate of 75% i.e. ₹ 50,625/-. Incentives towards transportation of goats are ₹ 2,000/- if purchased within the state and ₹ 5,000/- if purchased from outside the state of Goa or actual cost of transportation whichever is lower. Under this scheme, 11 cases have been sanctioned. 2 Beneficiaries completed the project and subsidy of ₹ 1.52 lakh has been released.

Western Ghats Development



Programme (Hill Areas)

Western Ghats Development Programme is implemented in the Talukas of Canacona, Sanguem, Dharbandora in South Goa District and Sattari in North Goa district by this department. The integrated watershed area programmes are implemented at present in Sattari and Canacona Talukas.

The programmes under Animal Husbandry Sector are as under:

- Incentive to Dairy farmers for renovation of cattle sheds.
- Maintenance of Assets created (Cattle Breeding Farm Copardem & 4 Veterinary Dispensaries)
- Purchase of Milch Animals.

The Goa Small Animal Rescue Management Scheme, 2014

The main objective is to improve the welfare of stray dog populations through a comprehensive sterilization programme carried out as part of the animal birth control (ABC) scheme, under the Prevention of Cruelty to Animals Act 1960. Under this scheme, 9 local bodies are covered and total amount of Grant in aid released is ₹ 81.73 lakh.

The Goa Stray Cattle Management Scheme, 2013 (Modified)

The Scheme envisages the impounding of the stray cattle and transporting them by specialized vehicle to the Cattle Pound where arrangements will be made to look after the animals.

Under this scheme, 15 Local bodies are covered and total amount of Grant in aid released is ₹ 608.61 lakh.

Short Scheme for Mission Rabies

Mission Rabies Worldwide Veterinary Services have formulated a programme in Goa keeping in mind two main aims

i.e. Eradication of Rabies disease and Rabies free Goa.

It is possible to control rabies disease in the State through this scheme and the State has been declared as the First Rabies Controlled State in the Country. Under this scheme, ₹ 91.99 lakh has been released to the Mission Rabies Organization for control, vaccination and awareness programme.

Gopal Ratna Award

Government has formulated a new scheme to encourage Dairy Farmers to produce more milk by undertaking scientific dairy farming. Under the scheme the dairy farmer will be awarded “Gopal Ratna Award” with Certificate, Memento and a cash prize of ₹ 1 lakh for producing highest quantity of milk in the State.

Dudhgram Yojana

The Scheme aims for establishment of Dudh Grams in the State of Goa for increasing milk production covering all villages under the jurisdiction of Veterinary Dispensary Sal, Veterinary Dispensary Cuncolim and 2 villages i.e. Cotigao and Gaondongrim under Veterinary Dispensary Canacona. Special benefits envisaged for the farmers in Dudhgram areas is as follows:-

For general category farmers of ‘Kamdhenu (Sudharit) Scheme’, the subsidy on animals purchased will be enhanced to 50% for the beneficiaries purchasing over and above 20 animals.

For general category beneficiaries under Pashupalan scheme, the subsidy is enhanced from 75% to 90%.

The young and adults of Cross Bred Cows and female improved buffaloes to be covered under mass de-worming programme every 3 months.

Chelated mineral mixtures are proposed to be provided to all productive Crossbred cows and Improved Buffaloes @ 75 gms daily for 100 days. Farmers will be given By Pass Fat @ 100 gms/ animal for 100 days per lactation starting from the 8th month of pregnancy.

It is proposed to provide a twenty four hour veterinary service for 365 days, without interruption. This service will have a Veterinary Doctor to treat, inseminate and see that the management of the dairy cow is proper round the clock and that the milch animal remains productive.

This service will commence only after the required manpower and vehicle provisions are made to the respective 3 Dispensaries. Appropriate medicines will be made available to these areas as first priority.

All the medicines and vaccines that are needed for dairy cows will be made available at these Dudh Gram in the selected villages. Vehicle/ mobility to be provided to the veterinary doctors to cover Dudh Gram.

FISHERIES

Fisheries sector contribute significantly to the development of the economy thereby providing livelihood to the people engaged in the fishing activity in the State. Government has taken effective steps towards addressing the challenges and optimizing the potentials in this sector.

The share of fisheries in GSDP of Agriculture & Allied sector was 2.23% in 2020-21. The area suitable for inland fishing is of 100 hectares. Besides seven rivers creeks originating from Western Ghats and meeting the Arabian Sea, the Mandovi and Zuari are medium size with Chapora, Sal, Terekol Talpona and Galzibag of

smaller size and various estuaries provides excellent nurseries for major fish as well as good shelter for fishing craft. Steps have been taken by involving the local fishermen/ fish farmers in boosting the fish production scientifically. Potentials in the aquaculture sector have contributed significantly towards livelihood development of the Fish farmers in the State.

Due to the existing Covid-19 Pandemic and the recent Tauktae cyclone the Sector had to face a challenge considering the safety precautions labour issue and climatic conditions.

The Fisheries sector went through a lot of uncertainties during this year 2021-22. The continuation of the pandemic Covid 19 outbreak and disaster created by severe cyclonic storm Tauktae, affected fishing activities across the State.

Various state and centrally sponsored schemes are implemented in the State for upliftment of the fishermen in the State. During the year 2021-2022, 5 new schemes have been notified to provide financial assistance i.e. for purchase of new fishing Craft less than 26 feet; purchase of Outboard Motor of 2HP to 5 HP; purchase of Barrier net and its accessories; purchase of Stake net and its accessories; purchase of accessories required for fish vending. Self-employment opportunities are generated to the fish farmers through the various components under Pradhan Mantri Matsya Sampada Yojna.

During the year 2021(i.e. January 2021 to September 2021) Marine Fish production was 81619 tonnes and Inland fish production was 3803 tonnes.

Policy decisions during the year 2021-22

The State Government under Marine Fishing regulation Act, 1980 issued

order for implementation of Monsoon Fishing Ban for period of 61 days from 1st June 2021 to 31st July 2021 for territorial waters of Goa.

The Government has taken a policy decision to allow Fishing Vessels owners having two fishing vessels in his/ her name to be permitted to purchase third fishing vessel or transfer permission for construction of new fishing vessel under replacement in his/ her name subject to the condition that at least one out of three fishing vessel shall be used for the purpose of Deep sea fishing by availing benefit under PMMSY.

Government has approved revised quota for permission to construct New fishing Canoe from 40 to 100 all over Goa for the year 2021-22. The Government has approved amendment of Goa Marine Fishing Regulation Rules, 2021 (6th Amendment).

New initiative taken up during the year 2021-22

Fresh Water Fish Seed Hatchery, Kerim, Sattari Goa

The Fresh Water Fish Seed Hatchery produces quality fish seed of Indian Major Carps and common carp. 4.00 lakh fingerlings have been produced during the year 2021-22.

Reservoir Cage Culture

During the year 2021-22, 20 cages were installed at Reservoir Cage Culture, at Chapoli Dam and were stocked with *Pangasiussutchi* and *GIFT Tilapia* fish seed.

Brackish water River Cages

Goa state has a huge scope for Brackish water Aquaculture since the state is bestowed with resources of Brackish water areas and especially the mangrove based creeks, canals and backwaters. Hence, to provide alternate

livelihood, brackish water cage culture is a powerful tool to utilize the untapped water resources for enhancing fish production, productivity thereby generating income.

Brackish water cage culture has been initiated which has enabled utilization of open water bodies for fish production and livelihood generation. A demonstration unit in the river Mandovi at Khandola has been set up. In the first phase of the project rearing of fish i.e. Pearl spot *Etroplus suratensis* in the Mandovi River was cultured.

Aquaponic system

Aquaponics is a food production system that couples aquaculture (raising aquatic animals such as fish, crayfish, snails or prawns in tanks) with hydroponics (cultivating plants in water) whereby the nutrient rich aquaculture water is fed to hydroponic grown plant, involving nitrifying bacteria for converting ammonia into nitrates.

This modern Technology has been introduced and Demonstration unit at Freshwater Fish Seed Hatchery at Keri, Sattari has been set up. In this integrated system, Tilapia fish was cultured along with vegetables such as Capsicum, Tomatoes, Basil, Spinach, Coriander and Ridge Gourd.

Harvesting of Reservoir 2021-2022

Reservoirs i.e. Anjunem, Chapoli, Amthane, Salaulim and Panchvadi were stocked with fish seed of Rohu Catla, Mrigal and Common Carp and harvested by inviting the tender from 21/06/2021 to 10/07/2021.

During the harvesting period, the species such as *Rohu*, *Catla* and *Pangasius sutchi* were caught. The total quantity of fish harvested from the above mentioned reservoirs was 1417 kg.

Training and Awareness programme

Awareness under “Atmanirbhar Bharat” and “Swayampurna Goa”

Government has initiated “AtmaNirbhar Bharat/ Swayampurna Goa” under which various programmes /activities were conducted at various Village Panchayat’s of Goa for creating awareness about various governments schemes and also providing technical guidance to the people. Under this initiative, 129 awareness programmes were conducted.

Short Term Training Programme

Short Term Training Programmes are imparted to fisher youth, fish farmers, entrepreneurs etc. interested in gaining in-hand training as well as theoretical knowledge in fisheries oriented aspects. The training is held at Fisheries Training Centre, Ela Dauji, Old Goa. Four training programme have been conducted and 152 participants have attended the training.

Six month training programme

Six months Certificate course is conducted for the fisher youth. The course is meant for training in Fishing Craft & Gear, Fundamentals of Navigation & Seamanship, Maintenance & Operation of Marine Diesel Engine, Weaving and Mending of Nets, Seafood value addition & Marketing, Aquaculture, Aquarium Fabrication & swimming. During the year 2021-22, 9 fisher youth have participated for this course.

Community Interaction Programme

It is to state that Indian Coast Guard in coordination with Department of Fisheries conducts Community Interaction Programme twice in a month with Fishermen for sensitizing fishermen about Coastal Security and Safety of Fishermen at sea. Fourteen

training programmes have been conducted during the year 2021-22.

Kisan Credit Card

A special drive has been undertaken to cover the fishermen under Kisan Credit Card. The benefit of the Kisan Credit Card has been extended to 286 fishermen of the State and loan amounting to ₹ 206.45 lakh has been disbursed.

Registration of Fish Sellers and Fish Agents

In order to bring all the fish agents and fish vendors under the ambit of the Fisheries Department, registration of fish sellers has been started. 1368 fish sellers are registered with the Department. This helps to identify/recognize the fishermen from different localities/communities and the database of all fishermen could be maintained all over the State. This allows to have a control on the number of fish trader/agent operating in the State of Goa thereby protecting the interest of the local fishermen of the State.

Implementation of eSMS Service

eSMS Gateway has been implemented and Mobile Governance Initiative through Info Tech Corporation of Goa Ltd (ITG). ITG has set up a SMS gateway to integrate the benefits of mobile technology with the Department with an aim to create cost-effective, efficient and round the clock Government information systems for the benefit of the public.

It enables to send SMS alerts for various services such as SMS on status of application of citizen, weather warning alerts, various meetings, message to field level officers and employee regarding various meeting and updates of the Department etc.

The BSNL-Skylo transponder with Netra Sagar App

The BSNL-Skylo transponder is a Lifesaving safety monitoring and communication transponder device (BSNL-Skylo Hub) with Netra Sagar App which enables real time monitoring of fishermen and facilitates the Naval/fisheries Department to take timely preventive measure to safeguard fishermen in distress. This transponder is highly useful for sensor data collection from remote locations, machines, Assets, etc. Further, it has built-in GPS and Gyro sensors that provide the tracking information, speed of the vessels, temperature of assets, etc besides providing Geofencing alerts. It provides End-to End solutions for Fishermen safety and Productivity and has communication range upto 300 NM deep into sea.

Issuance of Aadhaar card enabled QR code

As a Coastal Security measures, QR code enabled Aadhaar cards have been made mandatory to fishermen. Approximately, 11050 fishermen has been issued QR Aadhaar card .

Infrastructure works /Projects undertaken during 2021-22

Ongoing works

- Work for construction/up gradation of Malim fish landing centres is under progress.
- Administrative approval of the Government is conveyed to tender the work of rewiring of net mending shed at Fisheries Complex Cutbona and PWD has been requested to tender the work.
- Administrative approval of the Government is conveyed to tender the work of Urgent Repair of Net Mending Shed at Fisheries complex, Cutbona and PWD has been requested to tender the work.
- Expenditure sanction is accorded for the work “Construction of plinth and

supply and installation of STP at Cutbona Jetty” and work is under progress.

- Expenditure sanction is accorded for the work Urgent repairs/ renovation to the Fishermen shed & protection wall to the light house at the jetty in the Durbhat Panchayat.
- Installation of solar light panel system at following 3 locations i.e. a) fishing ramp at Santrem b) existing retaining wall constructed by the WRD for the fishermen at Bandirwada, c) existing ramp at Vagator beach. Expenditure sanction is accorded for Installation of solar light panel at following 2 locations i.e. a) Village Panchayat Anjuna Caisua b) Village Panchayat oxel and Installation of solar light panel system at near the sluice gate at Ambeshiwada, Amona.
- Expenditure sanction is accorded for the work Construction of compound wall and repairs of toilet block around fixing ramp at Badem Assagao and work is under progress.
- Expenditure sanction is accorded for Repair of exiting ramp and the existing net mending shed, located in Nerul village, Bardez –Goa and the work Extension of ramp at Talpona in Canacona is accorded.
- Administrative approval is conveyed for the work Construction of ramp and net mending shed at Dhaujowada in V.P. Cundaim - Ponda- Goa for the benefit of local fishermen of Cundaim - Ponda – Goa.
- Construction of compound wall of Half Masonary wall and half chain like fencing at fresh water fish seed hatchery at Anjunem, Keri, Sattari
- Repair and renovation of the entire existing shed and other miscellaneous work at fresh water fish seed hatchery at Anjunem, Keri, Sattari.

- Repair and renovation of brooder tanks of Fresh water Fish seed Hatchery at Anjunem Keri, Sattari.

Works Completed and fund disbursed during 2021-22

- Construction of compound wall / gate for the Administrative Building at Fisheries complex, Cutbona
- Repair of Net Mending Shed at Durbhat
- Repair of net mending shed at Kindlebag in Canacona.

Achievement under various Schemes during the year 2021-22

Financial Assistance for Construction/ Purchase of F.R.P./Wooden Fishing Craft

The objective of the scheme is to provide financial assistance to the traditional fishermen by way of subsidy for construction of fishing craft in order to earn their livelihood and to promote marine fisheries at large.

The Fishermen belonging to general category will be granted subsidy to the extent of 50% of the actual cost of craft limited to ₹ 60,000/- per craft and to the ST/ SC category fishermen 50% of the actual cost of craft limited to ₹ 80,000/-. Fishermen will be entitled to avail the same after every four years.

During the year 2021-22, an expenditure of ₹ 29.30 lakh has been incurred and 49 beneficiaries have been covered under the scheme during the year (up to December, 2021).

Financial Assistance for the purchase of Fuel (Petrol) to the Fishermen for Operation of Out Board Motor.

The main objective of the scheme is to provide financial assistance for purchase of fuel (Petrol) in order to grant relief to traditional fishermen to overcome the financial losses suffered

by them on account of increasing cost of the fuel so as to enable them to sustain themselves.

Fishermen using Petrol OBM shall be eligible for subsidy of ₹ 30/litre on a maximum consumption of 1000 litres of Petrol for General category and for ST/ SC 1100 litres of petrol per year. Beneficiary is entitled to avail the same every year.

During the year 2021-22, an expenditure of ₹ 171.80 lakh has been incurred and 580 beneficiaries have been covered under the scheme, up to December, 2021.

Interest Subsidy on Loans for Fisheries & Allied Activities.

The scheme provides credit facilities to farmers at subsidized rate of interest to accelerate investment in agriculture & allied sector in the State. All the fishermen who are interested to avail loans for purchase of canoe, outboard motors, fishing nets, fish finders and Global Positioning Systems (GPS) for fishing vessels, construction for fish hold in vessels, setting up of aquaculture farms, mussel farming, aquarium fish farming, drying and processing units, ice plants for fisheries and repairs and modification of fishing vessels is eligible for loan. Short, medium and long term loans are eligible for interest subsidy for a maximum period of five years. Loans upto ₹ 5.00 lakh and below are recommended at 4% interest.

During the year 2021-22, an expenditure of ₹ 0.30 lakh has been incurred and 2 beneficiaries have been covered under the scheme up to December, 2021.

Scheduled Tribes Development Scheme

Scheduled Tribe families are provided financial assistance for taking up fishing activities under the various welfare

schemes. An expenditure of ₹ 39.90 lakh has been incurred and 116 beneficiaries have been covered under the scheme during the year 2021-22 (up to December, 2021).

Financial Assistance to Brackish Water Aquaculture Farms

The scheme envisages increasing the coastal aquaculture activities through implementation of good management practices and resulting in increase in total fish production in the State.

a) Financial Assistance for purchase of farming equipments

50% of the cost limited to ₹ 1.00 lakh per ha is granted as subsidy for purchase of farm equipments like Aerators, pumps, crates, ice boxes, etc. Farmers are eligible for subsidy after 5 years. An expenditure of ₹ 2.16 lakh has been incurred and 4 beneficiaries have been covered under the scheme for the year 2021-22 (up to December, 2021).

Financial Assistance for the purchase of Gill Net and its accessories

The scheme envisages providing subsidy to fishermen for purchase of fishery requisites like gill nets, monofilament twine, nylon twine, sinkers, floats and other accessories.

The beneficiary is entitled for subsidy to the extent of 50% of the actual cost limited to ₹ 30,000/- for General category and ₹ 40000/- for ST SC beneficiaries, for purchase of gill nets with accessories through bank finance or self-finance. Traditional fishermen are entitled to avail the same after every four years.

During the year 2021-22, an expenditure of ₹ 4.98 lakh has been incurred and 20 beneficiaries have been covered under the scheme up to December, 2021.

Central Sector Scheme under Blue Revolution and Pradhan Mantri Matsya Sampada Yojana

Government of India has approved the “Pradhan Mantri Matsya Sampada Yojana” (PMMSY) – a scheme to bring about Blue Revolution through sustainable and responsible development of fisheries sector in India.

The PMMSY is designed to address critical gaps in fish production and productivity, quality, technology, post-harvest infrastructure and management, modernization and strengthening of value chain, traceability, establishing a robust fisheries management framework and fishers’ welfare. Achievement under Pradhan Mantri Matsya Sampada Yojana (for the year 2021-2022 (upto December 2021) is given in the Table No. 6.2.

Table No:6.2

Achievement under Pradhan Mantri Matsya Sampada Yojana

Pradhan Mantri Matsya Sampada Yojana	No of Benef.	Expenditure ₹in lakh
Construction of new Ponds for brackish water/ saline/ Alkaline areas	1	14.40
Construction of Kiosk including kiosk of aquarium/ ornamental fish	2	8.00
Providing boats and nets to traditional fishermen	25	29.94
Insulated vehicles	10	100.00
Motor Cycle with Ice Box	7	2.40
Three wheelers with ice box including e-rickshaw for fish vending	8	11.40
Refrigerated Vehicles	4	47.26

No. of beneficiaries under Blue Revolution is given in the Table No. 6.3

Table No: 6.3
No. of beneficiaries under Blue Revolution

Blue Revolution	No of Benef.	Fin. Achiev. ₹ in lakh
Financial Assistance for the Purchase of Insulated Truck of a minimum 10 tonne capacity	4	42.00
Setting up of Mobile/Retail fish Outlet	1	4.00
Safety Fishermen at Sea	33	14.31
Cages in reservoir/open water cages	1	4.80

The bulk fisheries resources of Goa State is Makerels and Sardines, besides the exportable varieties of sea fish as prawn, cuttle fish, ribbon fish etc. The important variety wise quantity of marine fish catch and inland fish catch and is given at Annexure 26 & Annexure 27. The trend of fish catch from 2012-20 21 is given in Table No. 6.4.

Table No: 6.4
Trend of fish catch 2011-2021
(in tonnes)

Sr. No.	Year	Marine	Inland	Total
1.	2012	86628	3887	90515
2.	2013	87984	4678	92662
3.	2014	128107	3718	131825
4.	2015	108240	4648	112888
5.	2016	101053	4403	105456
6.	2017	120430	5332	125762
7.	2018	116095	5020	121115
8.	2019	96398	4169	100567
9.	2020	96162	4749	100911
10.	2021 (P)	121469	5002	126471

The quantum of marine fish export during the 2020-21 was 16549 tonnes which realized a foreign exchange of ₹ 435.25 crore. The export of marine products from 2012 to 2020-21 is given in the Table No. 6.4 below

Table No 6.5
Export of Marine Products for the years
2012 to 2020-21

Year	Quantity (in tonnes)	Value (₹in lakh)
2012	42675	37918
2013	33939	41181
2014	40365	51195
2015	34814	51748
2016	38209	59654
2017-18	50571	71193
2018-19	37938	61967
2019-20	14699	28850
2020-21	16549	43525

COOPERATION

The Registrar of Cooperative Societies aims to ensure orderly growth of the cooperative movement in the state and to strengthen it as a self-sustaining instrument of socio economic development in implementing the national Priorities and Policies.

Various schemes and pattern of financial assistance to different types of Cooperative Societies are implemented in the State of Goa in the form of Grants, Loans, and Subsidies for their development/smooth functioning of business and other allied activities.

Policy Decision

An amendment to the Goa Cooperative Societies Act, 2001 vide Notification no.7/33/2021-LA dated 19th October 2021, published in Official Gazette dated 19th October 2021 has been carried out for assisting the ailing Cooperative societies by inserting a separate section 20 B which would enable provisions for formulating a Deposit protection Scheme and also amend the section 104/A and 104/B of the Goa Cooperative Societies Act, 2001 for enforcement of transfer of title to develop Mechanism to complete the process of conveyance from builder to concerned Housing Cooperative Societies.

The proposed amendment has been passed by the Legislative Assembly of Goa on 12th October, 2021.

The order under section 74(2) of Goa Cooperative Societies Act, 2001 and Rules 2003 was issued for empanelment of Chartered Accountants/Departmental Auditors/Certified Auditors for causing audit of Cooperative Societies/Bank in order to safeguard the funds and properties of the Coop. Societies.

Likewise, Notifications under Section 74(5) of the Act were issued by revising of audit fees payable to the Government and Remuneration/audit fees payable to the panel of Auditors.

Major Achievements

As part of the 68th All India Cooperative Week 2021-22, a week long programme has been organised to disseminate the Cooperative message to a large number of people from 14th to 20th November, 2021. The Theme of Co-operative week was prosperity through Co-operation.

64 New Coop. Societies have been registered during the period from 1st April, 2021 to 31st December, 2021.

During the period from 1st April, 2021 to 31st December, 2021 the audit of 806 societies attached to head office and zonal offices have been completed and the audit fees amounting to ₹ 20.66 lakh, Filing fees amounting to ₹ 2.68 lakh and processing fees amounting to ₹ 11.76 lakh has been recovered from different types of

Cooperative Societies/banks in the State.

The Goa State Cooperative Bank Ltd. Panaji has advanced loans of ₹ 2958.48 lakh for Agricultural and ₹ 19706.68 lakh for non- Agricultural purposes from 1st April, 2021 to 31st December, 2021.

An expenditure amounting to ₹ 19.20 lakh has been incurred in the form of financial assistance to different types of Cooperatives from 1st April, 2021 to 31st December, 2021.

- Managerial Subsidy to Dairy Cooperative amounting to ₹ 1.00 lakh.
- Infrastructure Development scheme for Dairy Cooperative Societies amounting to ₹ 14.80 lakh.
- Infrastructure Development scheme for Dairy Cooperative Societies under Scheduled Tribe Development Scheme amounting to ₹ 3.40 lakh.

Goa State Co-operative Award

Goa State Co-operative Award and Assistance function was organized on 21-12-2021 for presenting the awards and assistance to the co-operators, employees and cooperative societies for their excellent, sincere and dedicated work for the development of the cooperative movement in the State of Goa. The awards were presented for the years 2019-20 and 2020-21.

Special Appreciation Awards have been given to the Apex Bank Staff Coop. Credit Society Ltd., Panaji Goa and the Mahalsa Urban Coop. Credit Society.

CHAPTER 7

INDUSTRIES

One of the important factors for Sustainable economic growth is an accelerated development of the industrial sector. With this in mind various steps have been taken to create a conducive environment for the growth of Industries and further ensuing eco-friendly industries and a balanced regional growth. The Micro, Small and Medium Enterprises (MSMEs) sector contributes significantly in the economic and social development of the country by fostering entrepreneurship and generating largest employment opportunities at comparatively lower capital cost. MSMEs are complementary to large industries as ancillary units and this sector contributes significantly in the inclusive industrial development of the country. MSMEs that grow not only create greater profits for their promoters but also contribute to job creation and productivity in the economy. Policies must, therefore, focus on enabling MSMEs to grow by unshackling them.

- Under MSME Samadhan- Delayed Payment Monitoring System to Micro & Small Enterprises (MSEs), 82 applications have been reported in Financial Year 2021-22 with an amount of ₹ 1005.37 lakh & out of which 19 applications have been disposed of amounting to ₹ 144.83 lakh
- The Goa Investment Promotion Board has granted approval to 219 projects in Principle with total investment of ₹ 16074.80 crore with employment potential of 39241 persons.
- During the year 2021-22, under Udyog Aadhaar Memorandum (UAM) 4833 units have been filed online with proposed investment of ₹ 53916.55 lakh with employment potential of 39947 persons.
- Incentives in the form of subsidy/contribution amounting to ₹ 306.54 lakh have been disbursed till December 2021
- Under Prime Minister Employment Generation Programme (PMEGP) Scheme, Khadi and Village Industries Board (KVIB) has disbursed subsidy amounting ₹ 51.37 lakh involving project cost of ₹ 199.08 lakh with employment potential to 188 persons during the financial year 2020-21.
- Under promotion for beekeeping scheme, 128 proposals for 282 bee boxes have been sanctioned, 17 training programmes have been approved to train around 360 persons during the year 2021-22.
- Under share capital to local entrepreneurs and self employed scheme 2015, ₹ 329.87 lakh has been disbursed to 102 beneficiaries
- Konkan maritime cluster was accorded approval for setting up of Common Facility Centre (CFC) at Verna Industrial Estate Salcete, Goa with total project cost ₹ 1621.57 lakh with Grant in aid from Central and State Government of ₹ 1200 lakh and ₹ 150 lakh respectively. The applicant Konkan maritime cluster contributes its share of ₹ 271.57 lakh.

- **Scheme for Fund for Regeneration of Traditional Industries (SFURTI):-** The Central Government provides 100% funding to set up Common facility Centre (CFC) to regenerate cluster of traditional Industries. Government of Goa has identified the six clusters for CFCs. They are (1) Paddy processing cluster, (2) Sugarcane /Jaggery cluster, (3) Khola chilly cluster, (4) Multi fruit processing cluster, (5) Coir cluster, (6) Food processing Cluster.
- The efforts are being taken up to improve the sector-wise exports of State and the issues /suggestions outlined in the export strategy referred to the concerned authorities of State Government and to the concerned Ministry of Government of India.
- The District Export Promotion Committees have been formed in both districts of the State and the district export plan for North Goa and South District has been finalized.
- District Export Action plans have been formulated to build on the profile of the district i.e available logistics infrastructure, agriculture scenario including major crops as well as industrial scenario.
- The plan also analyzes the comprehensive strengths of the district and suggests regulatory reforms for boosting exports from the districts.
- Geographical Indication for Goan Khaje, Myndoli Banana and Harmal Chilli have been successfully notified

The Chief Minister's Rojgaar Yojana (CMRY) scheme

- This scheme is being implemented with enhanced loan limits & added incentives of 25% subsidy on assistance granted towards fixed capital investment. 122 additional beneficiaries have been sanctioned loan assistance amounting to ₹ 610.94 lakh under the scheme, during Financial Year 2021-22, upto 28.02.2022. Since inception, EDC has assisted 7,631 beneficiaries. The total CMRY loan sanctioned amounts to ₹ 23,465.50 lakh and disbursements of ₹ 20,041.49 lakh on cumulative basis.
- The Government of Goa has notified the Exit Policy for distressed beneficiaries under CMRY scheme. This scheme provides relief from repayment of outstanding borrowed loan amount to the distressed beneficiaries as per the modalities of the scheme. As on 28/02/2022, EDC has approved adjustment of ₹ 158.14 lakh from corpus fund for 171 beneficiaries on a cumulative basis.

The performance of the CMRY Scheme for the last 5 years is as under:

(₹ in lakh)

Year	2016-17 (Actual)	2017-18 (Actual)	2018-19 (Actual)	2019-20 (Actual)	2020-21 (Actual)	2021-22 (as on 28.02.22)
Sanctions	1,786.64	1,891.82	2,791.69	2,104.95	1,111.15	610.94
Disbursement	1,591.27	1,654.36	2,399.97	1,893.29	959.81	474.62
Recovery %	92.17	92.80	93.33	95.24	94.96	94.15

- Under the “Goa Tribal Employment Generation Program” (GTEGP) loan scheme, EDC has sanctioned loan assistance to 91 beneficiaries amounting to ₹ 611.52 lakh and disbursed ₹ 475.53 lakh on cumulative basis upto 30.09.2021, since inception.
- The Modified Interest Rebate Scheme -2012 (MIRS-2012) has been providing interest rebate to units in backward talukas. Additional interest rebate is also provided to resident / non-resident Goans and Women Entrepreneurs. The MIRS-2012 scheme has been extended till 31.03.2023 and is actively promoted and operated to promote industrialization in the State.
- The Government has made EDC as Nodal agency to implement the “Debt Relief Scheme for mining affected borrowers of Financial Institution”. The cumulative subsidy sanctioned by EDC is ₹.10,841.79 lakh to 4,696 applications under the scheme. Out of sanctioned cases, EDC has cumulatively disbursed subsidy of ₹9,787.85 lakh to 4,564 beneficiaries as on 30.11.2021.
- EDC has been assisting the Government by actively participating in the Atmanirbhar Bharat and Swayampurna Goa programmes (ABSG) with an objective to increase awareness about Government Schemes. The scheme information vide ABSG programmes are meant to reach remote areas of the state. Over 100 panchayats have been covered, so far. The Corporation have also actively participating in various online programmes organized by schools and colleges so as to create awareness of self employment schemes
- **IGNITE-EDC Innovation Hub (Ignite)** is now a 111 seater facility, which have been increased from its original capacity of 78 seats. So far it has supported 29 start-up incubates and has provided co-working space to numerous entities ranging from MNC’s to freelancers running their ventures. One of these start-ups have also attracted equity funding from external investors even in these unprecedented times.

Mining Industry

The Directorate of Mines & Geology is governed by the Mines & Mineral Development and Regulation Act (MMDR) of 1957 which is a uniform Central Legislation governing Major Minerals in the country and Rules framed there under. The Minor Minerals are governed under the Goa Minor Mineral Concession Rules of 1985. The Directorate looks after the work of mineral administration of major and minor minerals which involves Grant, renewal of Reconnaissance permits, Prospecting licenses and Mining leases within the ambit of the MMDR Act;1957. So also, quarrying leases which are granted and renewed under the Goa Minor Mineral Concession Rules, 1985.

Achievements

- For the financial year 2021-22 (till 31st January 2022) total royalty collected on extraction of major mineral is ₹ 112.04 crore. Royalty collected on minor minerals for the above period is ₹ 4.08 crore.
- As per the order of the Hon’ble Supreme Court of India, the State Government conducted 27 e-auctions of the mineral ore stacks lying at various mines/ stack yards in

the State of Goa. A total quantity of 16.03 million tons of mineral ore (upto 26th e-auction) was sold through e-auction. During 27th e-auction, a total 1.46 million tons ore was bid successfully by bidder.

- District Mineral Fund collection from 01/04/2021 to 31/01/2022 are as under:

- North Goa: ₹ 0.54 crore
- South Goa: ₹ 5.97 crore
- Total Goa State: ₹ 6.51 crore

- An amount of ₹ 40.00 lakh has been collected and transferred towards National Mineral Exploration Trust (NMET), New Delhi for the period 2021-22 (till December, 2021)

- Monitoring the extraction and transportation of minor minerals is extensively carried out so that value of the minor mineral is recovered from illegal transportation. Total amount of ₹ 1.38 lakh was recovered towards compounding charges during the financial year till 31st January, 2022.

- The extraction of sand is governed under the Goa Minor Mineral Concession Rules, 1985 and permits are issued on yearly basis. Currently, process for grant of sand permission for Chapora river/stretch is in progress.

- A Information Technology (IT) enabled solution has been put in place i.e. Bhumija ore monitoring system through Goa Electronics Ltd. (GEL), which is a state designated agency for providing IT solutions. This system can run on Point of Sale (POS) terminals which will help in efficient collection of royalties, regulation of transportation activities, curbing of illegal activities &

transportation of minor minerals and above all help in ease of doing business for the lease holders and also in attainment of objective of zero tolerance to corruption. POS terminals are integrated with Global Position System (GPS) data. This system will also be extended to cover quarrying and transportation of minor minerals.

Measures taken

- The Goa Minor Mineral Concession Rules, 1985, have been amended and notified.
- Provision is made for online payment of royalty and other payments for both major and minor minerals.
- Necessary steps are being taken to utilize the District Mineral Foundation Trust Funds for the benefit of public in the mining affected areas. Priority is accorded for drinking water supply through PWD, provision of school buses for transportation of school children and necessary upgradation in the mining affected areas like drilling of bore wells, creation of infrastructure so that every household in mining affected areas have regular supply of tap water.
- A dynamic website of the mines updates about each and every important issue and the details of all the 26 e-auctions are available on the website.
- All the permits of import & export, transit & sale of minerals are issued online and processing fees towards the major minerals are collected through e-wallet.
- A robust Global Position System (GPS) enabled Vehicle Tracking System (VTS) has been put in place to monitor the movement of mining trucks and to keep a check of parameters such as traffic

congestion, over speeding, over loading etc.

Welfare of Mining Affected People

- The Government has introduced the scheme called “Debt Relief Scheme for mining affected borrowers of Financial Institution” to provide financial relief to the borrowers in the mining sector who are defaulters with the banks and are in financial distress due to closure of mining industry.
- The scheme notified in September 2014 was further extended up to 31st March, 2021. Further, the scheme has been reintroduced as per the decision taken by the Cabinet extending the benefit of the scheme to 133 beneficiaries whose proposals have been received. The said scheme is valid for a period of one year i.e. upto 05/01/2023.

CHAPTER 8

INFRASTRUCTURE

TRANSPORT SECTOR

ROAD TRANSPORT

- Road Transport is the life line of the society and it plays a key role, in promoting socio-economic development and national integration.
- Department of Transport is a regulatory authority and it implements Motor Vehicle Act 1988 & Rules framed there under.
- Department functions through its Head Office at Junta House and 12 Sub-Offices of Assistant Director of Transport at taluka level as well as 5 border check posts.

Vehicles Registered

- As on 31st December 2021, the number of Motor Vehicles registered in the State stands as 15.27 lakh. On an average, over 57,000 vehicles are being registered every year.
- The number of vehicles registered during 2021-22 (Up to 31st December 2021) is 31498. It is evident that about 70.81% of Vehicles are in the category of two wheelers followed by cars and jeeps including taxis which accounts for 22.77%.

Table No. 8.1
Number of vehicles registered from 2018-19 to 2021-22 (upto 31/12/2021)

Sr. No.	Year	Number of Vehicles registered
1	2018-19	75076
2	2019-20	57817
3	2020-21	38135
4	2021-22	31498

Achievements

- 18178 new driving licenses are issued for the year 2021-22 (Upto December 2021).
- SKOCH Award instituted in 2003, salutes people, projects and institutions that go the extra mile to make India a better nation. The SKOCH Award covers the best of efforts in digital, financial and social inclusion.
- Department of Transport, Government of Goa has been awarded the SKOCH SILVER AWARD for the 'online issuance of permits' for the year 2021. The department has successfully designed and implemented end to end online issuance of permits where in the applicant does not require visiting RTO office for availing services and also can make online payment 24x7.
- The applications received are auto approved and auto issued to the applicant, thereby reducing the footfall in the RTO.
- Faster Adoption and Manufacturing of Hybrid and EV (FAME) II Scheme, 35 Nos. of 12 mtrs AC Electric Buses are received and are operational from 1st July 2021. Delivery of the balance 15 AC Electric Buses is expected by June 2022.



- Construction of Mapusa Bus stand is completed and has been inaugurated.
- Foundation stone has been laid for Quepem Bus stand on 06/01/2022.
- Construction of Sankhali bus stand has been completed and was inaugurated on 25th December 2021.
- Under Digital India initiative, 100% of offices are digital and 80% transactions are cashless, except at border check post.
- Identification of black spots is done for accident prone area and remedial measures are taken by Public Works Department. A total number of 1354 Motor Driving Licenses have been suspended during the year 2021 -22 (up to December 2021) for violating traffic rule.
- Road Accidents database software (iRAD) implemented/launched on 13/10/2021.

Welfare & Safety Measures

- **Vehicle Location Tracking Device (VLTD):** Vendors has been empanelled for both Digital Fare Meter & Vehicle Location Tracking Device (VLTD). VLTD project is done in 2 parts: (a) Taxis are fitted with Digital Fare Meter within built tracking devices. (b) Other public service vehicles are being fitted with only VLTD's. Backend monitoring system is developed by NIC. Command Control Centre for monitoring the vehicles, for which the centre has sanctioned ₹ 6.24 crore under Nirbhaya scheme is in process and temporary arrangement is done at Integrated Command Control Centre of Imagine Panaji Smart City Ltd. 408 Kadamba Transport Corporation buses are fitted with VLTD along with panic button and they are working satisfactorily and are already on boarded on VLTD portal of NIC and 8196 taxis are fitted with Digital Fare Meter.

- **Under Goa State Interim Compensation to Road Accident Victims, 2020:** The Scheme provides for financial assistance to the victims/families of victims against accidental death or bodily injury caused by external, violent visible means in road accidents. An amount of ₹ 66.00 lakh has been disbursed to 33 beneficiaries during the year 2021-22 (upto December 2021).
- **Under Goa State Public Transport Reimbursement of cost of Digital Fare Meter, 2021:** The scheme for Installation of Digital Meter for Commercial Vehicle has been notified. The objective of this scheme is to reimburse the cost of the device upon fitment of fare meter of digital type with printer and Global Positioning System (GPS) tracking device. The taxi owner is provided financial assistance through reimbursement of cost of meter in 2 installments. An amount of ₹ 16.99 lakh has been disbursed to 238 beneficiaries.

Strengthening of State Transport Network through KADAMBA TRANSPORT CORPORATION LIMITED (KTCL)

Policy Decisions of KTCL

- 50 Electric Vehicles under FAME Phase II 2019 (lot 1) by Ministry of Heavy Industries Government of India. Letter of Award has been issued to M/s. Evey Trans Pvt. Ltd., Hyderabad. 35 buses are put into operation. 15 buses delivery is pending is expected by June, 2022
- 100 Electric Buses under FAME India Phase II (lot II) by Ministry of Heavy Industries, Government of India. Letter of Award has been issued to Evey Trans Pvt. Ltd., Hyderabad.

Pandemic Initiatives

- Kadamba Transport Corporation Limited (KTCL) has played a vital role during Covid-19 pandemic as a frontline warrior by conducting various activities.
- During Covid-19 period KTCL has played a vital role in transportation of Migrants, Seafarers and stranded passengers.
 - KTCL operated buses for distribution of cooked food and grocery items during lockdown period in co-ordination with the Department of Civil Supplies.
 - Sanitization of buses was done after every schedule and bus stands on regular basis.
 - Dedicated services to the staff of Essential Services & Government Servants, Hospicio Hospital, GMC, various Health Centres, Collectorate, Disaster Management Cell staff during covid-19 pandemic.
 - Awareness of covid-19 through displaying banners & counseling of crew staff members of KTCL.
 - Railway passengers were transported from Margao railway station to Hospicio hospital for Covid-19 test as per the prevailing SOP issued by District Magistrate.
 - Shifting of patients from Dharbandora, Sanguem & Canacona talukas to Hospicio hospital/ESI hospital by buses for Covid-19 testing.
 - Providing buses for Health Centres in containment zones at various places declared by the District Magistrate during Covid-19 pandemic.

- Transportation of passengers from Goa Airport to various quarantine hotels identified by the Govt. of Goa.
- Transportation of stranded migrant's people from Goa to various states like Kerala, Karnataka, Maharashtra, Rajasthan and Madhya Pradesh.
- Hospicio ambulances were driven by KTCL drivers during covid-19 pandemic period.

Major Achievements

- Introduction of 86 Government School mini buses, 40 aided School Buses, A/C sleeper buses on Pune route.
- Connected around 30 villages to main town with new KTC route service.
- KTCL operated 103 buses for National Parliamentary conclave.
- Provided buses for distribution of cooked food to the needy people and also supplied essential items at the Covid Camps.
- Drivers were imparted training by Petroleum Conservation Research Association (PCRA) and Central Workers Education Board, New Delhi.
- Introduced Bus Transport Service from Airport to Calangute.
- Successfully taken trial of Electric Buses.
- Provided free transportation to the Specially Abled Student for Educational trips.
- Conducted Programme for sensitizing employees on HIV/Tobacco as well as Road safety.
- Audio announcement system on all major bus stands to announce bus timings.
- Plotting of routes & timings in goggle map.
- The Statistical year wise data of no. of accidents, earning and total cost are shown at Annexure 30.

INLAND TRANSPORT

Minor Ports

Initiatives to improve the Service delivery

- Under Sagarmala Central Sector Scheme, nine coastal passenger jetties are proposed in the River Mandovi, River Zuari, River Mapusa and Kumbharjua Canal. The locations of these nine jetties are at Aldona, Ribandar, Old Goa and Pilgao Banastarim, Rassaim, Durbhat, Shiroda and Savordem.
- Connectivity of passenger & cruise vessels in all the rivers would be achieved including bunkering and fresh water including Crew change.
- The applications for all the nine jetties project have been submitted for Coastal Regulation Zone (CRZ) clearance. The scheme is on 50-50 sharing pattern between Central and State Government.
- Proposed to take up reconstruction of advanced lighthouse at Campal for navigation. Plan for new construction of lighthouse at Campal under preparation with PWD. PWD architect is preparing drawings and estimates for construction of new light house at Campal, Soil testing is completed.
- Department has requested the Public Private Partnership (PPP) Division for hand holding support in preparation of RFP and concession Agreement for setting up Maritime school at Britona on Boot Basis.

Major achievements

- Two floating concrete jetty were completed & commissioned at Panaji in Mandovi river and one at Old Goa. This Project is 100% funded by the Inland Waterways Authority of India (IWAI).

- Jetty at Campal in River Mandovi is in progress for river cruising.
- Desilting of River Sal of the 1st phase of Phase II, from the Telaulim-Varca new Bridge downstream upto shatlalley in river Sal in an area of 6.0 Kilometers in length, 12.0 Metres wide and 3.0 Metres depth is completed and 2nd phase of Phase II of another 6 Kms from Shatmalley to Ambelim, work order was issued and work is in progress, so as to facilitate free movement of passengers and helped in cleaning the rivers as per NGT orders
- Work of construction of Terminal Building on Panaji Jetty is in progress, the design of the building resembles the form of ship, ground floor with a double height lobby for passengers and an open terrace for recreation, accumulated with all other amenities. 75% of the work is completed.
- During the financial year 2021-22 under Maritime school Britona, training facilities to 50 students combining in Deck and Engine Discipline for undergoing New Entrance Training course (N.E.T.C.) to beginners were commenced who were intending to make career in Inland waters of Goa.
- Continuous upgradation and modernization of 35 ferry boats. In last three years, 6 new ferry boats has been commissioned to connect islands replacing the old ones and are in process of commissioning two more ferries in the mid of April 2022.
- 25 lakh passengers are commuted monthly on all routes.
- Uninterrupted 24X7 ferry service to islanders/locals on 18 ferry routes even during pandemic period were deployed.
- Shifting over to III shifts system for 24X7 operation of ferry boats from existing II shift system in order to reduce overtime allowance

expenditure and for more employment generation.

- Continuous upgradation of landing facilities at various ferry ramps such as Panaji, Madkai, Volvoi, Pomburpa, Durbhat, Sarmanas, Chodan - Raibander, Old Goa – Diwar side, Betim, Camurim, Jua, Raya – Shiroda, St.Pedro – Diwar Routes and one Jetty at Aldona.
- Provided rest room and toilet facilities on shore at various ferry routes for commuters and ferry crew in order to avoid direct discharge in the rivers and to avoid water pollution.

PUBLIC WORKS

- The works completed under Roads & Bridges by Public Works Department (PWD) during the financial year 2021-22 are shown at Annexure- 28

WATER SUPPLY AND SANITATION

- The present water supply demand in the State is catered through seven Regional Water Supply Schemes installed at Opa, Assonora, Sanquelim, Salaulim, Canacona, Dabose and Chandel. The Salaulim Water Supply Scheme is the largest amongst all the Regional Water Supply Schemes covering most part of South Goa District.
- The works completed under Water Supply & Sanitation scheme by Public Works Department (PWD) during the financial year 2021-22 are shown at Annexure- 29

Departmental Housing

The following works were completed during the year 2021-22:

- Urgent Pre-monsoon repairs to General Pool Qtrs Sada in Mormugao at a cost of ₹ 10.04 lakh.
- Urgent Pre-monsoon repairs to Junta Qtrs Baina in Vasco at a cost of ₹ 10.16 lakh.

PUBLIC WORKS

- Laying of Pavers for crematorium including other miscellaneous works at Pajwada in ward no 09 in Bicholim at a cost of ₹ 13.85 lakh.
- Proposed Construction community hall along with and seater Toilet in s. no. 108/26 in ward no -111 at Khodgini Surla in Bicholim Taluka at a cost of ₹ 34.05 lakh.
- Construction of Ganpati shed and Beautification of surrounding area and construction of retaining wall at patto Gaonkarwada Narva Bicholim at a cost of ₹ 32.42 lakh.
- Construction of crematorium at Matavwada V.P. Penha de france in Porvorim at a cost of ₹ 168.28 lakh.
- Providing additional water proof pandal and adequate facility for pilgrim house on the rear side of Basilica at old Goa at a cost of ₹ 32.98 lakh.

URBAN DEVELOPMENT

Achievements

- **Under Deendayal Antyodaya Yojana- National Urban Livelihood Mission (DAY-NULM)**, during the financial year 2021-22, 1233 individuals have completed training in courses such as Fashion Designer, CRM Domestic Non Voice, Multi cuisine cook, Assistant Nail Technician, Field Technician Computing And Peripherals etc. for pursuing skill development courses across all 14 ULBs.
- **Under Shelter for Urban Homeless**, 09 Urban Homeless women have been provided Shelter at Mapusa and 09 Urban Homeless men have been provided Shelter at Verna by the NGO empanelled with Goa State Urban Development Agency (GSUDA).

- **The PM Street Vendor's AtmaNirbharNidhi (PM SVANidhi)**
PM SVANidhi is a special micro credit facility for street vendors. Under the scheme 2458 street vendors have been identified. The details of Street Vendors applications for PM SVANidhi is given in Table No 8.2

Table No. 8.2
(₹ In lakh)

No. of Appl. Received	No of App Uploaded	No of App Sanction	Loans Disbur-sed	Loan Amt in
1763	1702	1498	1372	137.20

- **Under Swachh Bharat Mission-Urban (SBM-U)**, the Urban Local Bodies (ULBs) in the State have been certified as Open Defecation Free+ (ODF+) by the Quality Control of India (QCI)/IQVIA team which is a certifying agency notified by Government of India. There is 100% door to door collection of waste and segregation is at 86% (Average) in all 14 ULBs.
- The process of augmentation of Material Recovery Facility (MRF) in all 14 ULBs is ongoing. In ULBs like Ponda, Margao, Valpoi, Sankhali, Mormugao, Mapusa and Canacona, a plan of action is proposed to augment wet waste treatment capacity using Bio-Methanation technology and the status is as under:
 - a) 0.5 TPD Bio-Methanation plant (Valpoi)- Operational
 - b) 5 TPD Bio-Methanation: Canacona & Mapusa municipal council- 95% completed.
 - c) Bicholim Municipal council- work commenced.
 - d) Mormugao Municipal Council (5+5 TPD) – Work order issued, Margao Municipal Council (3 plants of 5 TPD) - 1 unit of 5TPD-95% Completed. 2 plants- Work orders to be issued

- **Under Pradhan Mantri Awas Yojana- Housing for All (Urban) Mission**, Goa State Urban Development Agency has released financial assistance of ₹ 4,20,000/- to 3 beneficiaries to construct new houses under Beneficiary Led Construction-New vertical of Pradhan Mantri Awas Yojana-Urban (PMAY-U).
- **Under Credit Linked Subsidy Scheme** vertical of PMAY-U a total of 2435 subsidy loans have been provided for the EWS/LIG/MIG-I in MIG-II category for acquisition of houses.
- The no. of beneficiaries are given at Table no. 8.3

Table No: 8.3

Credit Linked Subsidy Scheme (CSS) component Pradhan Mantri Awas Yojana – Urban Goa (₹ in crore)			
No. of beneficiaries	Amount sanctioned	Amount Disbursed	Subsidy Amount
2435	629.21	529.52	53.63

- **One Demonstration Housing Project (DHP)** of ₹ 5.54 crore has been approved by the Government of India which will accommodate homeless/old age homeless persons and can accommodate 51 beneficiaries. The proposed project will come up in Chimbel and the land has been provided by Institute of Public Assistance (IPA).
- The following E-Governance applications for the Urban Local Bodies has been implemented:
 - Implemented BRAP 2020 reforms related to trade, sinages and construction license services in goa online portal. All reforms related have been implemented.
 - The report module of ULB portal goaulbservice.gov.in to display user manual of services of ULBs

on a single page in keeping with BRAP guidelines.

- Developed and deployed the Spot fine mobile application for violation of Garbage Control Act.

Integrated Development of Major Towns (IDMT)

Under IDMT scheme the following projects are completed :

- i. Construction of Commercial building in Sy. No. 367/2 of Cuncolim Municipal Council at a cost of ₹ 15.50 crore.
- ii. Construction of fish market in Sy. No. 3/0 in Quepem Village for Quepem Municipal Council at a cost of ₹ 7.00 crore.
- iii. Proposed Development of Hindu Crematorium & Burial Grounds at St. Inez, for Corporation of the City of Panaji. S.H- Development of Hindu Crematorium, Muslim Kabrastan, Burial grounds of other religions and Animal Shelter (Phase-I) at a cost of ₹ 8.60 crore.
- iv. For the financial year 2021-22 (upto December, 2021) a total of 110 projects and 41 agents have been registered with Goa RERA.

TOWN & COUNTRY PLANNING

- The Town & Country Planning Department has advisory role to the Government in land use related decision making and to ensure orderly and planned development of this State.
- To achieve the goal, the preparation of Regional Plan at state level has been undertaken. Outline Development Plans are prepared by respective Planning & Development Authorities for notified planning areas.
- The Department also involve in framing land use policies for the State of Goa. The physical development of the state is governed by Regional Plan, while in notified planning areas the development is

governed by Outline Development Plans. Building control and land development are governed by Goa Land Development and Building Construction Regulation.

- The Department is also involved in the field of Heritage Conservation; Traffic & Transportation related planning, Environmental protection issues etc.
- The Department with its headquarters at Panaji is having two District level offices i.e. one at Mapusa town having jurisdiction over North Goa District and another at Margao town having jurisdiction over South Goa District.
- Also there are seven branch offices located at Taluka Headquarters of Talukas of Tiswadi, Pernem, Bicholim, Mormugao, Ponda, Quepem and Canacona.
- The Department plays a vital role in guiding physical development in planned manner by way of preparation of Regional Plan and development control by way of issuing of Technical Clearances through District/Taluka level offices under the Goa Land Development and Building Construction Regulations 2010.
- The Department through District/Taluka Offices also plays important role by way of submitting reports under Section 32 of Land Revenue Code, 1969 in respect of applications of conversion of use of land received from District Collectors/Deputy Collectors as the case may be.
- Its functions include issuing of Zoning Certificate, NOC for registration of plots under section 49(6) of the Act, heritage conservation, issue of NOC under petroleum Act etc.

New initiatives

- Procedure for empanelment of Notary Architects and Notary Engineers to issue third party certification for grant of building permission of lower risks was notified as part of EoDB initiative.

Achievements

- The process of registering professionals like Engineers, Structural Engineers, Landscape Architect, Urban Designer and Town Planner under the Goa Land Development and Building Construction Regulations, 2010 is continued. The total number of Professionals registered under Goa Land Development and Building Construction Regulations, 2010 (GLDBCR) is 67 for the calendar year 2021 and total number of renewals of registration under GLDBCR, 2010 is 162 for the calendar year 2021.

FIRE & EMERGENCY SERVICES

- The foundation stone for the construction of the Fire Station building at Vasco was laid on 01.09.2021 and work of construction is under process.
- The Project for Re-designing and Re-construction of existing building and additional Construction of new Administrative and Training Block at Fire Force Head Quarters, Panaji has been entrusted to the Goa State Infrastructure Development Corporation (GSIDC) for execution and the construction is commenced on 18.02.2019 and the work is in progress.
- The construction of the Fire Station building at Bicholim on the land admeasuring 5479 Sq. mtrs is entrusted to the Goa State Infrastructure Development Corporation (GSIDC) and the

construction commenced on 10.09.2019 and the work is in progress.

- The Construction of the Fire Station Building at Valpoi on the land admeasuring 2235 Sq. mtrs at Naguem Village of Sattari Taluka is entrusted to the Goa State Infrastructure Development Corporation (GSIDC) and the construction work is commenced on 10.10.2019 and the work is in progress.
- The Coastal Fire Station cum Multipurpose Cyclone Shelter at Porvorim in North Goa was inaugurated on 05.01.2022 at the hands of Hon'ble Chief Minister, Government of Goa.
- The Department has transferred the land for setting up of Multi-Purpose Cyclone Shelter at Pilerne Fire Station under the National Cyclone Risk Mitigation Project (NCRMP) at Pilerne Fire Station and construction work has been completed and the same will be commissioned.
- The Cuncolim Fire Station was inaugurated on 04.01.2022 at the hands of Hon'ble Chief Minister, Government of Goa.
- **Enrolment of Aapda Mitra/Aapda Sakhi (Community Volunteers in Disaster Response):** Government has approved enrollment of 400 Aapda Mitra /Aapda Sakhi (Community Volunteers in Disaster Response) for the State of Goa. Accordingly, Memorandum of Understanding (MoU) has been signed between the Government of Goa and the National Disaster Management Authority. Out of approved 400 Aapda Mitra/Aapda Sakhi 350 volunteers has been enrolled.

The training for the enrolled Aapda Mitra /Aapda Sakhi Volunteers will be commenced in the financial year 2021-22, after release of 1st installment of funds by the Government of India.

MAJOR ACHIEVEMENTS

- On 14th April 2021, Sixteen (16) fire personnel of various ranks were awarded commendation certificates for good discipline and general behavior, exemplary performance in the field of fire fighting and rescue operation, best fire fighter and outstanding performance at the hands of Hon'ble Chief Minister, Government of Goa.
- On 2nd October 2021 Forty Seven (47) Fire Personnel of various ranks, 11 Life Guards from Drishti Saving Services and Six (06) volunteers who have assisted the Fire Personnel in rescue operations during cyclone Tauktae were awarded Commendation Certificates for Exemplary Performance and Outstanding Performance at the hands of Hon'ble Chief Minister, Government of Goa.
- Forty Seven Fire Personnel's were granted cash reward for their commendable work in Fire Fighting & Rescue Operation in the financial year 2021-22.
- During the financial year 2021-22 till 31st December 2021, the Fire & Emergency Services have collectively attended 4843 Fire and Emergency Calls (870 Fire and 3973 Emergency calls), during which 254 human lives and 274 animal lives were saved.
- Property worth ₹45.85 crore have been saved/salvaged due to timely action of the Fire Personnel.

GOA STATE INFRASTRUCTURE DEVELOPMENT CORPORATION LTD.

Major Achievements

During the year 2021-22, GSIDC completed infrastructure for 4 Liquid Medical Oxygen (LMO) tanks and seven Pressure Swing Absorption (PSA) plants of 1000 Litres Per Minute (LPM) in the State of Goa in record time during the Covid-19 pandemic. A 6000 litres LMO tank has been procured, installed and commissioned at North Goa District Hospital and also completed the works of providing and upgrading the Medical Gas Pipeline System (MGPS) in various hospitals.

The following major projects were completed and commissioned during the period from 01/04/2021 to 31/12/2021

- High Court Complex at Penha de Franca, Porvorim, Goa (₹175.00 cr.)
- 500 Bedded District Hospital at Margao, Goa (₹ 220.00 cr.).
- Interior and furnishing work of Commercial Tax Office at Altinho, Panaji, Panaji (₹ 19.00 cr.).
- II nd Phase of Goa Dental College and Hospital at Bambolim, Goa.
- Ashram School under centrally sponsored scheme of Ministry of Tribal Affairs at "MOSHIPHOND", Poinguinim, Canacona, consisting of school building, Boys' Hostel and Girls' Hostel – Phase I (₹30.50 cr.)
- Swimming pool at Headland, Sada in Mormugao (₹ 13.40 cr.).
- Development /Infrastructure of Shree Mahalasa Devi temple at Verna-Ph. II (₹ 15.00 crore)
- Construction of Bridge across Rua de Ourem Creek (₹ 24.00 crore)
- Rejuvenation of Mandovi River Promenade from Kala Academy to Youth Hostel, Miramar (₹ 12.00 crore).

- Construction of Bus Stand & Mini Depot at Sankhali, Goa (₹ 21.00 crore)
- Construction of bridge over Valvanti river connecting Bhandarwada to Vithalapur in Sankhali (₹ 7.50 crore)
- Development of Government Village school playground at Anandwadi in Sanguem taluka (₹ 6.70 crore)
- Construction of Multipurpose Community Hall for Department of Tribal Welfare in Bicholim Taluka at Harvalem Sankhali Goa (₹ 2.11 crore)
- Major repairs to Old Aged Home of IPA Provedoria at Margao, Chinchinim and Majorda (Phase-I, Majorda) (₹ 2.00 crore)
- Construction of Multipurpose Hall and Office Building for Village Panchayat, Salvador Do Mundo (Additional work) (₹ 1.88 crore)
- Upgradation /Renovation of Government College of Arts, Science & Commerce, Sanquelim, Goa-Additional work I- Furniture works (₹ 1.48 crore)
- Repairs of office premises of excise station, Pernem, Goa (₹ 1.45 crore)
- Construction of Retaining wall (Phase-I) at Parra-Verla-Canca Football ground, Parra, Bardez Goa (₹ 0.42 crore)
- Upgradation of ward nos. 120, 123, 124, staff rest rooms and other miscellaneous works at Goa medical College and Hospital and Extension of ward no. 125 for Cardiology Department at at Goa medical College and Hospital, Bambolim-Office Furniture (₹ 0.27 crore)
- Repairs/constructions/upgradation of various schools (52 nos.) in various talukas of Goa State at a cost of ₹ 8.38 crore.
- Construction of Panchayat Ghar for VP Querim-Toracol, VP Tuem, VP Mandrem at a cost of ₹ 4.17 crore.

- Construction of Panchayat Ghar along with market complex at VP Menkurem at a cost of ₹ 1.23 crore.
- Construction of Market complex cum Community Hall in Chodan Village Panchayat at a cost of ₹ 1.64 crore.

WATER RESOURCES

Policy Decisions

- The State water policy -2020 has been formulated & notified on 23/08/2021.

New initiative

- **River Rejuvenation Programme:** In the second phase of Sal river, the damaged embankment will be restored and an barrage structure, with mechanical gate opening with large aeration units will be installed to continuously improve the water quality of the river, at a cost of around ₹ 20 Cr.
- **Flood control and Mitigation Programme:** The state witnessed a disastrous flood in the month of July'2021 in most of the rivers causing huge destruction and losses to the properties. The department proposes to evolve flood control measures to the areas badly affected on Mhadei river, Chapora river, Mapusa river and Khandepar river. The flood area demarcation of the river basins has been completed. We propose to implement a comprehensive flood mitigation project consisting of flood mitigation bunds, protection walls and flood pumping stations for Mhadei river, Mapusa river and Chapora river at Cost of ₹ 200 crore.
- **Raw Water Supply Project:** To ensure uninterrupted water supply in the Tillari canals, which disrupts due to annual repairs or unforeseen breaches, the department envisages to make alternate water supply scheme viz:“Construction of Barrage

and 400 MLD Raw water pumping station on Chapora river at village Sal/Dhumase, to feed the Tillari left bank main canal to cater supply to water treatment plant at Assonora, and Guirim, for Bicholim and Bardez Taluka and to augment the supply of right bank main canal of Tillari by pumping water from Kalna River to cater water to 30 MLD water treatment plant at Chandel and 30 MLD raw water plant at Dhargal in Pernem taluka". Estimated cost of project is around ₹ 300 crore.

- **Research and data documentation:** Under World bank funded National Hydrology Project. The river gauging, establishment of all weather stations at various locations in the state is being carried out. A State Water quality laboratory is also installed at Sinchai Bhavan-Porvorim, to monitor the quality of water in the state. To promote scientific studies on the data generated and to prepare a mathematical model a centre of excellence is planned at Margao under the World bank funds.
- **Dam Rehabilitation and Improvement Project:** State has created large dams such as Salaulim and Anjunem dams. These dams play a very vital role for the progress and development of the state. Under the funding of world bank, it is proposed to conduct safety audit of the dam and take up their rehabilitation and improvement on the recommendation of Dam safety panel (DSP) for ensuring their longevity and safety. The project cost is around ₹ 58 crore.
- **Automised Scientific Community Irrigation Systems:** Under the concept of more drop per crop and to improve the water use efficiency and to enhance the income, it is proposed to implement "Piped automated irrigation system to the

farmers in Anjunem Irrigation Project and group of farmers in various villages in the state. The project cost is around ₹ 150 Crore.

- **Mhadei Inter- State River Water Dispute:** Due to diversion of Mhadei river water to Malaprabha river basin by Karnataka and to Tillari basin by Maharashtra, the department approached Supreme Court of India in 2006. The Hon. Court was pleased to set up a water dispute tribunal in the year 2010. After taking various hearings from 2012 onwards, the tribunal published its award on 14/08/2018 restricting the claims of Karnataka and Maharashtra substantially and also imposing certain restrictions for proceeding further with their projects. However, aggrieved with the continuation of illegal activities of Karnataka and also not fully satisfied with the award, the department has filed Contempt as well as Special Leave petitions before the appropriate fora. Same is being pursued by a specially set up Mhadei Cell in the department in coordination with Advocate General of the state.

Major achievements

- The Tillari Irrigation Project an inter-state project conceived in the year 1987 is one of the 99 prioritised projects, being regularly monitored by PMO for its speedy implementation. It is in final stage of completion at the cost ₹ 1465.60 crore. Department has targeted to declare the project completed by may, 2022. Upon its completion, 14,521 Ha. land will be brought under irrigation benefiting 1.50 lakh of farmers families in Pernem, Bardez, and Bicholim talukas. The project is expected to, enhance the agriculture production in the state, create employment in the farming

sector generating direct and indirect income of ₹ 300 crore/year (approx.).

- Under River Rejuvenation Programme - Two important projects have been envisaged under this programme:

➤ **River Sal** which is a lifeline of Salcete Taluka, due to urbanisation and lack of maintenance for decades, was silted and the water quality deteriorated. This river was categorised, by the NGT court as a **polluted river of the state**. The department has taken the initiative for rejuvenating it by way of desilting and improving its water way which has controlled the flooding of vast paddy fields and the quality of the water has improved significantly.

➤ **Rejuvenation of Colva Creek**:-The Colva beach is iconic beach of the state which attracts thousands of tourists on day to day basis. The water quality of the Colva creek was very bad due to ingress of pollutants into the nallah which culminates and discharges into the sea. It proposed to desilt the nallah and improve the water quality, provide side protection walls, bandhara and STP plant for irrigation and also beautification of the banks. The said project costing ₹ 9.00 crore is in progress and will be completed the year, 2022.

- **Cyclone Risk Mitigation Project**:- Under the World Bank aid, National Disaster Management Project is being implemented costing ₹ 66 crore. Under this project out of Multi-Purpose Cyclone shelter projects, 9 multi-purpose cyclone shelters have been completed in the various locations in the state at cost of ₹ 30 crore. To have advance alert about the impending disaster such as cyclone, Tsunami etc. 38 Early Warning Dissemination Towers have been proposed to be installed along the coast line, out of which 23 towers

have been installed and commissioned. The project will be completed by December'2022.

- **Under Raw Water Supply Project** A barrage and 130 MLD raw water pumping station at Ganjem on Mhadei river has been implemented at a cost of ₹110 crores in a record time of 2 years. The said structure has impounded 65 lakh cubic meter of raw water to secure the water requirement of Tiswadi and Ponda Taluka. Similarly, for the North Goa District, three raw water supply plants have been implemented with a cumulative 55 MLD capacity at Guirim (20MLD), Dhargal (30MLD) and Mopa (5MLD) and are completed at a cost of ₹ 60 crores, which will ensure uninterrupted drinking water supply to Porvorim, Pernem taluka, Mopa Airport and surrounding areas.
- **Utilisation of abandoned mining pit water**: A unique initiative to use abandoned mining pits which have enormous storage of water, for the purpose of community farming, drinking and groundwater recharge all over the state is being implemented at a cost of ₹25 crore.
- Geo-tagging of the water bodies in the state is in final stage of completion.

POWER

NEW INITIATIVES

- The online services for change of name, change of load, change of category, and shifting of meter has been implemented for the convenience of the public. The consumers can simply scan and upload the required documents on the Department portal or on Goa Online and avail facilities by online payment of the requisite fees.

- Any Time Payment Machine (ATPM) has been installed in association with its BBPS partner, TJSB Bank at its HO at Panaji for 24x7 payments of Electricity Bills on all the days of the year. There is plan to install similar ATPM machine across various locations in the state for the convenience of the public.
- The project related to Real Time Data Acquisition system has successfully completed for obtaining online data for all 11KV feeders so as to monitor indices such as SAIDI and SAIFI for improved power system reliability and quality.
- The capacity of the 24x7 Call Centre of the Electricity Department located at Kadamba Plateau has been enhanced during the 4 months of monsoon season for providing better and timely services to its consumers.
- Help Desk Operators have been placed at its office located in the rural areas for assisting the public in carrying out online operations related to New Power Connections and other services of the Department.
- The Government has accorded approval for signing MoU between Department of New & Renewable Energy (DNRE) and Energy Efficiency Services Limited (EESL) for implementation of CONVERGENCE project including setting up 110 MW decentralized Solar Power Projects on Government land. The Petition for approval of Tariff and for execution of PPA from the said Convergence Project has been filed with JERC.
- In order to alleviate the sufferings of the people of the State on account of the outcome of the Covid-19 pandemic, the Government took a considerate view by deferring the implementation of the Tariff approved by the Hon'ble JERC for the year 2021-22. The revenue loss has been absorbed by the Government.
- The Public Lighting Duty Act has been accorded approval. Under this, all the Streetlights, High Masts, Façade lighting etc including that installed by other Departments such as P.W.D., GSIDC, Tourism, Forest, GSUDA will be maintained by the Electricity Department. The Draft Rules under the Act are under finalization.

ACHIEVEMENTS

- The Petition for the Business Plan for the control period 2022-23 to 2024-25 and the Annual Revenue Requirement for the control period 2022-23 to 2024-25 and Tariff Determination for 2022-23 has been filed before the Joint Electricity Regulatory Commission (JERC) as mandated under the Regulations. JERC held the Public hearing on 24/01/2022 via video conferencing. JERC will issue Order for the same.
- The Fuel & Power Purchase Cost Adjustment Formula (FPPCA) for quarterly adjustments in the Tariff of consumers are being notified regularly. Quarterly adjustments are being done as per notified Formula.
- The Chief Minister's Rozgar Yojana (CMRY) launched by Public Works Department has been extended to the Electricity Department for Civil Engineering related works by notifying the same.
- The Government of India has launched the Reforms based and result linked Revamped Distribution Sector Scheme (RDSS) for the Distribution Company (in India) (DISCOMS) to improve their operational efficiencies and financial sustainability by providing financial support for prepaid smart metering &

system metering and up-gradation of the distribution infrastructure, training & capacity building and other enabling & supporting activities.

- Initiatives have been taken for availing the financial assistance by appointing REC Power Development and Consultancy Limited (RECPDCL) as consultants for assistance in preparation of Action Plan and Detailed Project Report (DPR). The Action Plan and DPR have been prepared and has been submitted to REC, the Nodal Agency of the Ministry of Power for according sanction. The Distribution Reforms Committee has also been constituted as per the requirements of the scheme.
- A Pilot Project for setting up of 2.5 MW Floating Solar in Selaulim Dam by DNRE along with CESL is under consideration.
- The work for erection of a 33/11 KV, 2x20 MVA capacity Gas Insulated Sub-Station at Tuem to cater to the loads of the Electronic Manufacturing Cluster (EMC) being set up through central funding at Tuem has been tendered and will be taken up for execution.
- Outsourcing of Advertisement on Poles, RMUs, Feeder pillars and DTC fencing along with drawing of Telecom / Cable TV cable on department poles has been tendered and work has been awarded. The estimated Revenue generation is ₹ 2.98 crore for 3 years.

MAJOR ACHIEVEMENTS

- An “Ultra-Modern” GIS substation 33/11KV, 2 x 20 MVA capacity has been commissioned at Navelim. This will benefit around 18000 consumers. Similar Sub-Stations at Altinho-Panaji, Patto-Panaji and Calangute are under progress and in

very advanced stage of completion. This will further enhance the power supply quality and reliability in these areas.

- The “State of Art” Substations of capacity 33/11KV, 2 x 10 MVA Capacity at Karaswada in Mapusa Constituency and 33/11KV, 2 x 6.3 MVA Capacity at Sal in Bicholim Constituency have been commissioned to further enhance power supply availability in these areas. The Karaswada substation will supply power to city of Mapusa and the surrounding areas besides the industrial estate at Karaswada. The Sal substation will supply power to the Bicholim taluka.
- A new 33/11kV, 10 MVA compact substation has been commissioned at Anjuna to provide enhanced power supply to the consumers along the coastal belt of Anjuna.
- The existing 33/11 KV Sub-Station capacities have been augmented by the addition of new 6.3 MVA and 10 MVA power transformers totaling 20 Nos.
- The 33KV S/C cable from 220/110/33/11 KV Tivim Sub-station to 33/11 KV Nachinola Sub-station along with associated equipments has been commissioned thereby increasing power supply reliability to the village of Nachinola.
- The 33KV D/C underground cable from Amona 220/33KV Sub-substation to Marcel has been completed. This will also benefit the Corlim Sub-station by providing alternate supply.
- Conversion of 33 KV Chandel feeder to D/C line with HTLS conductor at Mopa is in advanced stage of completion. This will provide power supply for the Mopa Airport.

- The work of Change of existing 33 KV overhead Racoon conductor with HTLS conductor from Nachinola to Saligao via Porvorim has been completed. Similar work of change of conductor from Tivim to Nachinola has also been completed. Work is in progress for major 33KV feeders in Goa thereby enhancing the capacity of the 33kV network.
- The work of conversion of HT/LT Overhead Line to underground network at Anjuna under NCRMP Scheme funded by World Bank is almost completed thereby enhancing power supply quality and reliability along the coastal belt of Anjuna.
- The Real Time Data Acquisition System (RT-DAS) has been completed. This will enable to accurately measure the reliability indices and thus enable to take corrective measures.
- Work of conversion of HT/LT Overhead Line to covered conductor taken up in Veling, Priol and Cuncollem has been completed. Similar work in Tivre-Orgao, Bhoma-Adcolna and Betki-Khandola in Priol is under progress.
- The underground cabling works undertaken at Netravali, Old Goa, Mollar, Dhulapi, Cumbarjua feeder, in Margao/Fatorda, Porvorim, and Curchorem have been completed.
- The Electricity Department is ranked 2nd in the Country for carrying out digital transactions. Out of the total transactions around 83.5% pertain to digital transactions.

CHAPTER 9

CIVIL AVIATION

DEVELOPMENT OF GREENFIELD INTERNATIONAL AIRPORT AT MOPA IN PERNEM TALUKA



Construction of Mopa Airport has achieved a physical progress of 66.01% till 28th February 2022. The project is proposed to be completed and commissioned by August 2022 to commemorate the 75 years of Independence of India.

GOA TO HAVE UNIQUE STATUS WITH TWO AIRPORTS

Government of Goa received an in-principle approval from Government of India for development of Greenfield airport at Mopa in Pernem taluka vide letter No. AV-20015/8/95-VB(VOL-III) dated 01.05.2000 with a proviso that the Dabolim Airport will be closed for civilian operations once the new Airport becomes operational. However, this in-principle approval amended by the Government of India vide letter No. AV-20015/11/2008-AD dated 1.7.2010 informing Government of Goa that the Dabolim Airport will continue to undertake civilian operations even after commissioning of the new Airport. Therefore, it is clear that Dabolim Airport will not be closed by the Government for civilian operations even after commissioning of Mopa Airport. With two operational airports, air connectivity to Goa will get increased tremendously connecting the State

various parts of India as well as world over. Goa is expected to emerge as gateway for international flights coming to India.

TENDER PROCESS

The tender process for development of Mopa Airport on Public Private Partnership basis was initiated in October 2014 and got concluded in August 2016. In two-stage bidding process, GMR Airports Limited emerged as the winning bidder offering highest revenue share of 36.99% to the Government of Goa. The winning bidder i.e. GMR Airports Limited created a Special Purpose Vehicle viz. GMR Goa International Airports Limited (GGIAL) for development of

Mopa Airport on Design, Build, Finance, Operate and Transfer (DBFOT) basis. Government of Goa signed concession agreement with GMR Goa International Airports Limited for development of Greenfield International Airport at Mopa

in Goa on PPP basis on 8th November 2016. The project has environmental clearance from Ministry of Environment, Forests & Climate Change vide letter No.F.No.10-29/2011-IA.III dated 28.10.2015 and Addendum letter No. F.No. 10-29/2011-IA.III dated 13.03.2020.

PHASE-WISE DEVELOPMENT

The Airport is being developed in four phases. The design capacity of Phase-I is 4.4 million passengers per annum (mppa) followed by 5.8 mppa in Phase - II, 9.4 mppa in Phase-III and 13.1 mppa in Phase-IV with ultimate potential being over 35 mppa. The trigger for phase-wise development is upon achievement of 80% of traffic envisaged in the previous phase. The Airport is designed to cater to both Code 'C' and Code 'E' aircrafts in the initial phases and Code 'F' aircrafts in the later phase. The construction of Phase-I has commenced from 4th September 2017 with 3 years completion period and COD being 3rd September 2020. But, the project faced restraints by the Courts including stay order by the Hon'ble Supreme Court of India causing time overrun of 638 days. Further, covid-19 pandemic too has affected construction progress leading to additional 90 days time overrun.

Due to time overrun, the project cost has been revised to ₹ 2615 crore as against the initial estimated cost of ₹ 1900 crore. Accordingly, the project completion date has been revised to 28th Aug 2022. Presently, the construction work is in progress with cumulative physical achievement being 66.01% till end February 2022.

The project is proposed to commissioned and dedicated to the

nation in August 2022 to commemorate the 75th year of independence of India.

CONSTRUCTION OF RUNWAY

The Airport is designed as an integrated international and domestic airport, primarily catering to origin and destination traffic. The Airport is designed to adopt an airfield layout which would protect for future widening of runway and taxiway to accommodate wide body aircraft (Airbus type 380 aircraft).

The salient points considered to determine the runway layout are:-

- Runway orientation, length
- Land use Map, keeping the original split between airside, passenger Terminal and landside areas
- Restricted area landside, for parking, buses, STP and WTP.
- Access road entry point to the site
- Proactively safeguard space for a second runway.
- The Terminal Building is of a linear configuration, designed for incremental growth in the east-west direction with minimal disruption of operational capability.

The Airport has a provision for two runways. Initially, the Airport is designed for only one main run way, which is 3500 meters long with east-west orientation (10-28).

Provision is made for second runway in the future and area is safeguarded at a distance of 415m between centrelines from the main runway.

Presently, the Wet Mixed Macadam (WMM) for runway is 100% completed and 99.96% work of primary conduit

ducts is completed. A picture depicting the actual progress is given below:-



CONSTRUCTION OF TAXIWAY

The runway is provided with a parallel taxiway and associated taxiway system. The separation distance between the main runway, allows for a holding position for aircraft of maximum length of 77.5 m. This allows to by-pass of A380 aircraft (Code 'F') on the parallel taxiway. Entrances are located at runway ends and at points giving the necessary take-off distance for the aircrafts. The taxiway system has been proposed with clearances that safeguards the operation of both Code 'E' and Code 'F' (wide bodied) aircrafts.

Rapid exit taxiways (RET) are designed to allow aircraft to exit the runway at higher speeds due to their angle of connection with the runway. This results in the landing aircraft occupying the runway for a shorter period of time, thus enhancing runway capacity. The exits are located such that landing aircraft can vacate the runway as soon as possible. The main runway is planned with the 2 RET at 30° angle. Presently, 92.38 % work of Wet Mixed Macadam (WMM) for taxiway, 69.47 % work of primary conduit ducts and 100% work

of WMM for RET is 100% completed. A picture depicting the actual progress is given below:-



CONSTRUCTION OF INTEGRATED PASSENGER TERMINAL BUILDING

The Integrated Passenger Terminal Building has a design capacity of 4.4 mppa in phase-I (with a provision for creating a shell for 7.7 mppa) followed by 5.8 mppa, 9.4 mppa and 13.1 mppa in phase-II, phase-III and phase-IV respectively. It is a three level terminal building where ground level or apron level is for departures & arrivals, Level-1 is for arrivals and Level-2 is for departures. The building is designed in such a way to give enhanced passenger experience, highly efficient and upgradable baggage handling systems, and airport plaza and food court. The building is designed in compliance to green building regulations.

The Passenger Terminal Building (PTB) is of a linear configuration consisting of a Central Processor and a connected pier. The central processor has check-in and baggage claim facilities on the ground level. The security control and gate hold areas are located on first floor level. The linear pier has contact stands

on the north side which allows for a highly efficient airside operation, with multiple taxi lanes running parallel to the pier. The remote stands are located to the north and west of the pier.

The Airport Plaza is located between the traffic forecourt and the PTB facade. It is a general circulation area for passengers and airport staff. It contains ticketing counters, retail units and food and beverage outlets. Departing passengers enter the PTB from the Plaza, and arriving passengers exit the PTB into the Plaza. The Plaza is sheltered from sun and rain by the terminal roof, which extends over the outdoor space.

The Central Processor is a two level space with a roof that cantilevers over the large airport plaza. On the ground floor, the Central processor contains check-in, outbound/inbound baggage functions, service areas and airline offices. Passenger security screening, immigration, emigration, offices and commercial, food & beverage offerings are located on the first level. The departure facility of the Central Processor grows westward as the terminal expands. The Arrivals facility expands eastwards.

The Pier is a two level space with a mezzanine over the first floor level in the later phases. Bus lounges, airport service areas, mechanical functions and service roads for baggage handling are located on the ground floor. The first floor contains boarding gate areas, circulation for arriving and departing passengers and area for additional food & beverage units.

The roof over the Pier is an independent element, separate from the roof over the central processor.

Departing and arriving passengers travel through passenger boarding bridges (PBBs) to the aircraft parked at the contact stands. The PBBs consist of a fixed bridge that crosses the service road, to a ramp house. The ramp house and the aircraft are connected by a movable apron drive bridge.

Presently, the work of PPC footing , Columns for arrival and departure floor is 100% completed and Block work of 37.09% is completed. Various other works relating to plastering, erection of roof truss, erection of bull nose, roof sheet liner etc are in progress. A picture depicting the actual progress is given below:-



CONSTRUCTION OF AIR TRAFFIC CONTROL (ATC)

The ATC tower is a state of the art structure with modern facilities and equipment. Adjacent to the ATC tower is a technical block. The ATC is managed by the Airport Authority of India. The ATC, centrally located towards west of the terminal building, is provided with a ground level entrance, tower level-1 for technical, tower level-2 for technical/support (break room) and tower level-3 for the control room. The cabin for the air traffic controllers is designed as a rounded structure to allow for almost 360 degree view of the

aerodrome. The Air Traffic Control Tower is intended to handle both Air Traffic Control and Ramp Control. A clear unobstructed view of the entire movement area of the Airport and of air traffic in the vicinity of Airport is necessary.

The position and height of the tower allow a clear visibility to runways, taxiways and the surrounding airspace, especially the approach and departure areas. The maximum extent possible a direct view is provided from the tower to all apron areas and aircraft stands.

Presently, the work relating to Raft and Core Wall for Air Traffic Control, PCC for foundation, Block work, external steel erection, Column concreting for ATC and ATCTB is 100% completed.

HVAC, Electrical, FD&P and PHE works are in progress, Purlin works are in progress for ATC Tower. A picture depicting the actual progress is given below:-



COMMUNICATION AND NAVIGATIONAL SYSTEM

As a modern international airport, the Mopa Airport is being equipped with state of the art Instrument Landing Systems (ILS). The use of ILS is to provide safe approach and landing during periods of low visibilities as well as enhanced safety during more favourable visibility conditions. The ILS consists of localizer antennas (LLZ) providing the aircraft with information about the course and a Glide path (GP) antenna providing the aircraft with information about the correct glide slope. The LLZ antennas are located 300m from the end of each runway. GP antennas are located 120-150 m away from the runway centre line and 300-400 m from the runway threshold. Within the critical zones and the sensitive zones indicated on the site plan drawing, these zones are inside the perimeter fence. The critical area and the sensitive area are LLZ and Glide Path. The DVOR with co-located Distance Measurement Equipment (DME) is being established on the airfield intended for the purpose of en-route navigation and non-precision approach of the Airport. The coverage range is typically 185 NM from the

Airport. The Air Traffic Management services are being provided by the Airports Authority of India (AAI). The picture depicting the actual progress is given below:-



GLIDE PATH



LOCALISER

AIRPORT SURVEILLANCE RADAR (ASR)

The Airport Master plan caters for the provision of radar facilities providing Terminal Area control (TMA) and Area control (ACC). The radar used for the area control (between 60 and 200nm from the airport) is a Monopulse Secondary Surveillance Radar (MSSR), which in addition to the horizontal information provides altitude, speed and direction of the aircraft as this radar

interrogates the transponder in the aircraft.

A picture depicting the actual progress is given below:-



AIRFIELD GROUND LIGHTING (AGL)

The AGL is planned to comply with the requirements for a Category I precision approach runway in accordance with ICAO Annex 14 and DGCA CAR, which allows operations at a decision height not less than 60 m, a visibility not less than 800 m, and a runway visual range of not less than 550 m. The AGL comprises of the following systems:

- Approach lighting
- Precision approach path indicator (PAPI)
- Runway edge lights
- Runway center line lights
- Runway end lights
- Runway threshold lights
- Taxiway lighting
- Stop bars or runway guard lights
- Illuminated wind cones
- Cabling and intensity control for the individual system

CRASH, FIRE AND RESCUE (CFR) FACILITIES

In order to meet the more stringent regulations, a satellite facility has been planned on the North Side of the Runway. A fire drill facility is located in the northern part of the Airport area. The objective is to achieve a response time of maximum two minutes for all crash fire rescue (CFR) and fire fighting services. Since the proposed location of the Airport is away from the city, the infrastructure for fire fighting needs to be self-sufficient. Considering the diverse requirements of airside and landside firefighting services, multiple underground fire reserves along with pumping stations are being developed.

The static fire reserves for the air side are designed to meet a Category-9 rating. This includes adequate water and foam storage facilities to replenish any fire fighting vehicles in case of an emergency. Further, provision of airside hydrants across the airfield to supplement the water requirements for the fire fighting vehicles is considered. A picture depicting the current progress of work is indicated below:-



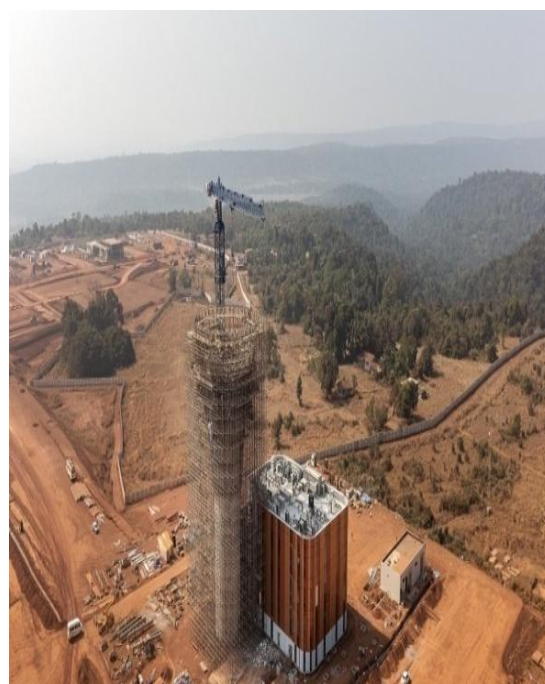
SITE BOUNDARY WALL AND OPERATIONAL AREA WALL

As safety and security of airports is paramount, having a proper perimeter security arrangement is important, so that any intrusions are immediately detected. The master plan provides for a masonry wall with adequate security surveillance all along the site boundary. In addition an airside perimeter fence is required to safeguard key operational areas. Such a fencing system is BCAS compliant with a provision for monitoring the boundary.

Presently, out of total site boundary length of 13.4 km, panel erection of about 8 km and chain-link fencing of about 1.5 km is completed.

Out of total operational area boundary length of 14.7 km, panel erection of 11.7 km is completed.

A picture depicting the actual progress is given below :-





AVIATION SKILL DEVELOPMENT CENTER (ASDC)

Construction of Aviation Skill Development Centre (ASDC) at the Mopa Airport site has been completed. The ASDC will conduct various short terms courses to impart training/skills to the unemployed youth in different types of jobs likely to be created once the Airport becomes operational. The objective is to make the unemployed youth become eligible for the jobs when the airport becomes operational. Candidates for Aircraft Rescue & Fire Fighting Operations (ARFF) and Baggage Screeners have already been selected and sent for training in recognized institutions outside Goa.



EXPRESSWAY CONNECTIVITY TO MOPA AIRPORT

The Ministry of Roads, Transport and Highways (MORTH), Government of India has approved the alignment of 6-lane express way connectivity to Mopa Airport from NH-66.

The proposed express way is given a unique identification number of NH-166S. The land acquisition for the same has been completed. The MORTH through Goa PWD has completed the tender process and awarded the work to the selected bidder. The work is expected to be completed and commissioned in the year 2023.

MOPA AIRPORT PLANTATION PROGRAMME

Government has taken up the Mopa Airport plantation programme for planting 5.5 lakh saplings over a period of five year, of which, 50,000 saplings are proposed to be planted within the airport boundary by the GMR Goa International Airport Limited.

The Goa State Bio Diversity Board (GSBB), as nodal agency, has been entrusted with the task of planting 5 lakh saplings through its village level Bio Diversity Committees and other possible plantation programmes.



The GSBB will keep track of the plantations done including its management, monitoring, creation of data base, conduct of audit etc. People are encouraged to plant fruit bearing saplings, which motivates them to take good care of saplings considering future economic returns from the same. So far, GSBB has planted 4.6 lakh saplings at various locations



Salient features of the plantation program are as follows

- So far, GSBB has planted 4.6 lakh saplings under the 'Mopa Airport Plantation Program' with the involvement of village level Bio-Diversity Management Committees and people's participation.
- Created livelihood opportunities to the local farmers and youth.
- Young students were engaged in distribution of saplings, for keeping records, taking undertaking from the beneficiaries. They were further motivated to start up their own nursery and GSBB assured to buy back the sapling from them for the year 2022.
- With the help of Water Resource Department (WRD) arrangement was made to provide water to ensure long term survivability of trees in the village of Mopa.
- Encouraged locals to plant indigenous species of plants along with cash crops in order to provide healthy habitat for local fauna.
- Training for Apiculture has been taken for the locals to promote apiculture as a means of livelihood as associated benefit from plantation activity beyond fruits and timber.
- For the year 2022 GSBB has placed an order for purchase of about 1.5 lakh saplings from the local farmers and youth.

Table No 9.1

Various types of courses proposed to be conducted at the ASDC are given in the following table.

Sl.No.	Job profile	Name of the matching course	Duration of training	Location
1	Retail sales in Non-Aero/ Duty Free & Customer Service Execs.	Retail sales Associate	2 Months	Full course at ASDC
2	Food & Beverages Services	F& B Steward	3 Months	Full course at ASDC
3	House Keeping Services	Housekeeping Executive	3 Months	Full course at ASDC
4	Cargo Assistants	Airline Cargo Assistant	2 Months	Partly at ASDC
5	Landside Security	Landside Security	1 Months	Screening at ASDC
6a	Eng. & Maintenance	HVAC Technician	3 Months	Full course at ASDC
6b	Eng. & Maintenance	Plumbing	3 Months	Screening at ASDC
6c	Eng. & Maintenance	Electrician	3 Months	Full course at ASDC
7	Gardening & Landscaping	Gardener cum Nursery Raiser	3 Months	Full course at ASDC
8	Drivers	Commercial Vehicle Driver	3 Months	Full course at ASDC
9	Trolley Pullers	Trolley Puller	2 weeks	Partly at ASDC
10	Ground Handling Staff (Behind the Counter)	Airline Baggage Handler (Ground handling staff)	2 Months	Partly at ASDC
11	Airside Operations	Airside Operator	2 Months	Partly at ASDC
12	Façade Cleaners	Façade Cleaners	2 Months	Partly at ASDC
13	Airside Drivers (Special Vehicle)	Airside Drivers (Special Vehicle Drivers)	2 Weeks	Partly at ASDC
14	Parking Services/Traffic Wardens	Traffic Warden	2 Weeks	Partly at ASDC
15a	Equip. Operators– Buggy, forklift Operators	Airline High Lift Truck Operator	2 Months	Partly at ASDC

15b	Equip. Operators– Buggy, forklift Operators	Forklift Operator	2 Months	Partly at ASDC
16	IT Services Support Staff	IT service support staff	3 Months	Full course at ASDC

No.	List of opportunities at Airport	Domain Experience	Name of the course	Duration of Training
1	Aircraft Rescue & Fire Fighting Operations (ARFF)	Trained as per DGCA Norms	Basic Fire Fighters course	6 month
2	Baggage Screeners	Trained as per BCAS Norms	Baggage Screeners	3 month

CHAPTER 10

RURAL DEVELOPMENT

Towards developing a sustainable village economy, Government has initiated various schemes in order to generate employment in rural areas and to raise the standard of living of the rural poor.

Apart from providing employment, these programmes also create social assets for strengthening the rural economy which are meant for poverty alleviation.

Policy decisions

- The work of construction of Goa Bazar Project at Mercedes will be carried out during the financial year 2022-23.
- Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) will be implemented from the financial year 2022-23.

Pradhan Mantri Awaas Yojana - Gramin (PMAY-G)

Pradhan Mantri Awas Yojana - Gramin (PMAY-G) is a Centrally Sponsored Scheme sharing in the ratio of 60:40 between Central & State which is replaced from earlier housing scheme i.e. Indira Awaas Yojana (IAY).

Under the scheme, an amount of ₹ 1.20 lakh is provided for the construction of a house only for those whose names appear in the Socio-Economic Caste Census 2011.

There are 2,619 person's names all over Goa as per Socio Economic Caste Census 2011.



PMAY-G House

Under the scheme, houses are provided to the rural poor i.e. 42 houses provided with 1st Installment, 23 – 2nd Installment and 24 – Final Installment during the financial year 2021-22 (upto February 2022), incurring an expenditure of ₹ 39.03 lakh.

Shyama Prasad Mukherji Rurban Mission Scheme

Under the scheme, Phase I - One cluster of Xeldem Quepem, South Goa District and Phase II - Saligao cluster in Bardez Taluka, North Goa District are approved by the Ministry of Rural Development.

As on 31st December 2021, 30 different type of infrastructural works amounting ₹ 14.74 crore are tendered of which Work Order to 04 works amounting to ₹ 5.46 crore has been issued and the work will be taken shortly.

The final Integrated Cluster Active Plan (ICAP) of Saligao has been forwarded to the Ministry of Rural Development for approval and the State Technical Support Agency has been requested to expedite the preparation of detailed project report (DPR).

Goa State Rural Livelihood Mission (GSRLM)

The aim of the NRLM is to reduce poverty through building strong grassroots institutions of the poor. These institutions enable the poor households to access gainful self-employed and skilled wage employment opportunities, resulting in appreciable increase in their incomes on a sustainable basis.

Benefits for formation of Group/Federation

Under the scheme, 150 New Self Help Groups (SHGs) were formed, while 135 Self Help Groups revived for building gainful self-employment and skilled wage employment opportunities and 21 new Village Organizations were formed during the financial year 2021-22 (upto February 2022).

478 SHGs were provided with Revolving Fund. Start-up funds were provided to 41 Village Organizations and Community Investment Funds were provided to 89 Village Organizations.

Recently, the State Government has been launched online website for all SHG members i.e. www.goasbazaar.org to show case their products for online selling.



Inauguration of Goa Bazar website i.e. www.goabazaar.org

Under Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PMFME) scheme, the seed capital of ₹ 76.11 lakh and bank linkage under One District One Product (ODOP) (Jackfruit for North Goa & Coconut for South Goa) of ₹ 17.00 lakh has been sanctioned to 250 SHG members who are involved in Micro Food Processing Industries.

Goa SARAS

During the month of December 2021, the National Level Exhibition-cum-Sale i.e. 11th Goa SARAS was organized exposing different items produced by SHGs and providing market to Swarogaries all over the country.

The SHGs/ Artisans from 12 States including Goa were participated in the exhibition and ₹ 117.64 lakh sale were preceded during the exhibition. Under the scheme, an expenditure of ₹ 483.41 lakh has been incurred during the financial year 2021-22.



Goa SARAS Exhibition 2021-22. Agarbatti Making training

National Rural Employment Guarantee Act (NREGA)

The objective of the scheme is to provide at least 100 days of guaranteed wage employment in a financial year to every rural household whose adult members volunteer to do unskilled manual work. The Scheme being demand driven, the provision of work is triggered by the demand for work by the

wage seekers who are registered in the respective Village Panchayats under this Scheme. The current notified wage rate is enhanced to ₹ 294/- w.e.f. 1st April, 2021.

Under the scheme from April 2021 to February 2022, 91204 mandays have been generated and whereas 376 new Job Cards are issued. 298 new works are sanctioned, while 193 works are completed which were sanctioned during the financial year 2020-21 & 2021-22.

Desilting/Cleaning works of Canals are done in collaboration with of Water Resource Department in Bicholim, Pernem, Sanguem, Bardez, Quepem, Salcete and Dharbandora Talukas.

Since Goa Libration, there was no road for villagers of Kazugotto connecting to nearby pucca road. To fulfill the villagers dream of having road, the construction of 3.5 kms katcha road from Kiskon to Corla in V.P. Caurem-Pirla connecting to tar road was undertaken under the scheme. During monsoon seasons, it becomes extremely difficult for villagers to walk due to flowing of water onto the pathway and lack of transport facility.

Water harvesting and water conservation projects such as bandh, staggered trenches, contour trenches, check dams, nallah bandhs, farm ponds, sunken ponds, dig out pits, etc. were undertaken at hillock areas of Village Panchayats in Bardez, Pernem, Canacona, Sanguem, and Ponda talukas.

The expenditure incurred during the financial year 2021-22 (upto February 2022) under the Scheme is ₹ 670.89 lakh towards works and administrative cost.



Construction of steps and other development works at Marlim in VP Poinguinim (Phase I) & work repair of existing well at Maxem loliem V.P Loliem Polem Canacona Taluka.

National Social Assistance Programme

• Indira Gandhi National Old Age/Widow/Disability Pension Scheme

Indira Gandhi National Old Age/Widow/Disability Pension Scheme is a 100% Central Scheme covering the beneficiaries residing in rural areas and also from urban area comes under BPL category.

The beneficiary must be a deprived in the sense of having little or no regular means of subsistence from his/her own source of income or through financial support from family members or other sources.

Under this programme, pension of ₹ 200/- per month to Senior Citizen and ₹ 300/- per month to Disabled & Widow is provided to the beneficiaries of 60 years of age and above till the age of 79 years and thereafter ₹ 500/- is provided to all beneficiaries at age of 79 and above.

During the year 2021-22, 4804 Senior Citizen, 3918 Widow and 330 Disabled Pensioners (9052 Pensioners) comprises were benefited incurring an

expenditure of ₹ 47.85 lakh and another 13,580 Pensioners have been identified for monthly pension under the scheme.

• National Family Benefit Scheme

Under the scheme, an assistance of ₹ 20,000/- is provided to the family on the death of its primary bread winner (male or female) should have occurred while he or she is in the age group of 18 to 59 years, i.e. more than 18 years of age and less than 60 years of age. Families benefited for last 5 years is given in table No. 10.1

TableNo: 10.1
National Family Benefits Scheme

Year	Families	Amount (₹ in lakh)
2017-18	130	26.00
2018-19	181	25.80
2019-20	56	10.61
2020-21	142	27.40
2021-22 till Feb.'22	177	31.70

Goa Gram Samrudhi Yojana (GGSY)

The scheme provides creation of infrastructure assets in the rural areas such as Panchayat Ghars, Village Community Halls, Crematoriums, Rural Roads, Development of Open Space/ Beautification and Construction of Retaining Wall/ Compound Wall on the basis of demand driven etc. and are carried out for the benefit of the rural people.

Under the GGSY scheme, 182 new works are sanctioned, while 26 works are completed which were sanctioned during financial year 2020-21 & 2021-22. An amount of ₹ 1087.83 lakh has been spent during the financial year 2021-22 (upto February 2022).



Beautification at Devnamol VP Kalay in Sanvordem constituency & near Shree Krishna Devalaya at Shiniwada, Peddem in V.P. Shiroda

Goa Grameen Urja Yojana (GGUY)

The BPL families are provided with free LPG installation comprising of one gas stove with two burners and two cylinders with all other required accessories for the total cost of ₹ 6,087/-. This scheme is 100% funded by the State Government.

Under the GGUY scheme 584 BPL families have been provided LPG connection in order to minimize the use of firewood incurring an expenditure of ₹ 35.52 lakh during the financial year 2021-22 (upto February 2022). Amount distributed for last 5 years is given in table No. 10.2

Table No: 10.2
Year wise Beneficiary (Families) under
Goa Grameen Urja Yojana

Year	Families	Amount (₹ in lakh)
2017-18	323	19.66
2018-19	192	11.69
2019-20	392	23.84
2020-21	326	29.63
2021 till Feb. 2022	584	35.52



LPG Connection provided to BPL beneficiaries

Goa Bazar

The foundation stone for Goa Bazar Project at Mercedes was laid down on 08.01.2022. The project will give the platform for SHGs members from the State of Goa as well as the members from all over Country to showcase and sell their products. The infrastructure will also have the training facilities for the skill development of SHG members.

Directorate of Panchayats

Rural Garbage Disposal Scheme

Under this scheme, any Village Panchayats is eligible to get financial assistance from the Government to deal with plastic garbage menace in the village.

An amount of ₹ 2.00 lakh per annum is sanctioned to each Village Panchayat for the work of door to door garbage collection, segregation and disposal of garbage including dry plastic garbage within the jurisdiction.

An amount of ₹ 7.00 lakh is sanctioned to the Panchayats in the vicinity of Airport for disposal of garbage.

An amount of ₹ 5.00 lakh per annum is sanctioned to the Panchayats in the costal belt and all the Panchayats which are Tourism centric.

An amount of ₹ 5.00 lakh per annum is sanctioned to all the sub-urban

Panchayats that are nearby and located on the boundary of four major Cities/Municipalities i.e. Mapusa, Panaji, Margao and Ponda.

An Amount of ₹ 3.00 lakh per annum is sanctioned to the Village Panchayats who is having weekly Village Market and all the Panchayats whose annual income is upto ₹ 25.00 Lakh.

An Amount of ₹ 5.00 lakh has been sanctioned to the 10 best performing Village Panchayats. Under the scheme, an expenditure of ₹ 124.80 lakh has been incurred during the financial year 2021-22 (upto December 2021).

15th Finance Commission

Under 15th Finance Commission, grants received in form of Tied Grants and Untied Grants sharing 50%-50% equally. A provision of ₹ 8427.00 lakh has been made in the Budget Estimate for the year 2021-22. An expenditure of ₹ 3792.77 lakh has been incurred upto December 2021.

Tied Grants are utilized to carry out the basic services of (a) sanitation and maintenance of open-defecation free (ODF) status and (b) supply of drinking water, rain water harvesting and water recycling etc.

Untied Grants are utilized for developmental work in nature, based on the locally-felt needs. The emphasis would be towards increasing the efficiency of capital assets already created and to add to the productivity and welfare. (b) The funds should be used for works of non-recurring nature.

Unconditional Matching Grants has been released to 111 Village Panchayats according to the annual income collected through local taxes & fees. The budget outlay of ₹ 970.00

lakh (North Goa District and South Goa District) has been made and an expenditure of ₹ 62.30 lakh has been incurred upto December 2021.

Swatch Bharat Mission Grameen

The scheme is aimed to provide toilet in each and every household in the rural areas of all the Village Panchayats and also to construct community sanitation complexes to make Open Defecation Free wherever land is available. Also, awareness is created among rural population for segregation of dry and wet waste.

20,022 individual household toilets have been provided and 514 community toilets have been constructed under this scheme. Steps are taken to motivate and educate the communities in making Village clean with the theme “Nital Ghar, Nital Gao, Nital Goecho Raakhno Haanv.”

A budget provision of ₹ 500.00 lakh has been made and an expenditure of ₹ 5.10 lakh has been incurred upto December 2021 and a budget provision of ₹ 10000.00 lakh has been made in the capital Outlay and expenditure of ₹ 4860.58 lakh has been incurred during the financial year 2021-22 (upto December 2021).

Taluka wise Income and expenditure of 191 Village Panchayats during the financial year 2020-21 is given in Annexure- 31.

Atal Gram Development Agency Goa (AGDAG)

Keeping in view to boost Agriculture and Horticulture in the village and to ensure economic upliftment of the farmers,

This Agency promoted cultivation of strawberries. About 26,000 high yielding varieties of strawberry saplings have been procured from strawberry farms in Wai, Mahabaleshwar and provided to the Self Help Groups for cultivation. This scheme has benefited about 22 households in the village of Verlem.

The Agency has also provided all necessary logistic support towards cultivation of strawberries. Trainings of various durations have been provided to farmers at Netravali through accomplished strawberry farmers.

The Agency succeeded in its efforts in implementation of Atmanirbar Bharat Swaymapurna Goa scheme launched by Chief Minister, Government of Goa on 2nd October 2020. The Agency has distributed 43,500 saplings of chillies, 1500 saplings of brinjals, 1000 saplings of capsicum, 1000 saplings of watermelon, 1500 saplings of marigold, 200 saplings of drumsticks and 6500 saplings of tomatoes, 2500 gms of cluster beans and 2500 gms lady fingers. This has helped farmer's families to not only fetch better income from agriculture but also has inculcated the practice of agriculture continuously in future.

Further, as a part of Atmanirbhar Bharat Swayampurna Goa Programme, the Agency resolved for adoption of Surla village in Bicholim taluka to transform large tracts of non-cultivable land into cultivable land by adopting suitable measures in the jurisdiction of Village Panchayat Surla in Bicholim Taluka.

This scheme will benefit around 337 families in Surla village to start practicing agriculture and become self-reliant.

An area of around 70,000 sq. mts. has been made cultivable in Ward No. 2 (Joshibhat) in the jurisdiction of V.P. Surla by following appropriate strategies. Also, said area has been brought under local alsando cultivation. 200 kgs of local alsando seeds have been procured and have been provided to the farmers. The local alsando have been cultivated in an area of

70,000 sq. mts and the first crop has been harvested.

Further, area of around 44,000 sq. mts. has been brought under paddy cultivation during the rabi season made in Ward No. 9 (Ghotkatad) in the jurisdiction of V.P. Surla. 250 kgs of paddy seeds (Jyoti variety) have been procured and have been provided to the farmers.

CHAPTER 11

TOURISM

The State of Goa is a land that, redefines holidays with its exquisite mixture of scenery and beautiful beaches. Goa is the smallest State of India located on the west coast of India in the region known as “Konkan”. Goa is also recognized at a Global level for its scenic beauty, thereby witnesses lakhs of international and domestic tourists every year. The State is blessed with its rich flora and fauna owing to its location on the Western Ghats range which is classified as biodiversity hotspot.

Tourist Arrivals

During the Covid pandemic, in the year 2020, 26,71,533 Domestic and 3,00,193 Foreign Tourist preferred Goa as their tourist destination and in the year 2021 (upto December) is 33,08,089 domestic tourists and 22,128 foreign tourists arrived in the State. The year wise domestic and foreign tourists arrival in the State of Goa and its percentage change over the previous year is given in table below.

Table No: 11.1

Year wise Domestic and Foreign Tourist arrival in Goa

Calendar Year	Domestic	Foreign	Total	% change
2018	7081559	933841	8015400	2.95
2019	7127287	937113	8064400	0.61
2020	2671533	300193	2971726	-63.15
2021(P)	3308089	22128	3330217	12.06

Source: Department of Tourism, Goa

Mobilization of Resources

The department has outsourced the services for e-Registration of the various activities under Goa Registration of Tourist Trade Act 1982 has been

outsourced to M/S Goa Electronic Ltd. (GEL) facilitating hassle free registration.

The revenue collection has considerably increased owing to timely registration, renewals, collection of registration fees, imposition of fines for default, penalty for malpractice etc. The revenue collected from various tourist related registration activities during the period from 01/04/2021 upto 28/02/2022 is given in the table below.

Table No. 11.2

Registration of different tourist related activities and revenue collection for the period April 2021 to February 2022.

Name of the Trade/ Activity	Total Registration / Renewal	Revenue Collected (₹ in lakh)
Hotels	2170	413.90
Travel Agencies/ Tour Operators	104	10.18
Water Sports	672	14.11
Government Beach Shacks	315	177.03
Pvt. Beach Shacks/Huts/ tents	37	8.80
Deckbed & Umbrellas	346	18.13

Source: Department of Tourism, Goa

Goa Tourism Development Corporation (GTDC)

Development of Infrastructure around Old Goa is a Centrally Sponsored Scheme under Pilgrimage Rejuvenation and Spirituality Augmentation Drive (PRASAD).

Development of Hinterland Tourism Circuit scheme is Centrally Sponsored Scheme under “Swadesh Darshan”.

- Under Swadesh Darshan-I, conceptualizing, designing, supplying, installing, testing and commissioning of the sound and light show for Tourism and Heritage Promotion created with combination of immersive storytelling, advance multimedia, Animation technology and projection mapping at the inner courtyard, at Aguada jail and construction of Mini Convention Centre and Development of Rua De Ourem Creek Side at Panaji, has been undertaken.
- Installation of New High Mast Lights and street lights at various coastal touristic location both in North Goa and South Goa District including maintenance for a period of 05 years.(Phase-I)has been undertaken.
- Under Swadesh Darshan, construction of Jetty Bridge at Dona Paula and beautification of Mae-De-Deus Church at Saligao has been undertaken.
- Beautification & Illumination of Shree Bhumika Temple Premises, Bicholim, Radhakrishna Temple Sanquelim, Vithal Temple (near Tripurari Purnima location) Sanquelim, Bicholim, Bhagwati temple at Parcem, Kamleshwar Bhumika Temple at Korgao, Swamy Siddharud Matt Mandrem and Shree Bhumika Devi Temple at Paliem have been undertaken.
- Art Park at Porvorim has been completed.
- Development, beautification and providing signages on the road leading to Anjuna beach (ODR) from Bodgeshwar Temple to Sankhleshwar at Verla Canca has been undertaken.
- Under Swadesh Darshan Scheme, Construction of Public amenities such as Toilet blocks, Changing rooms, Construction of Tourist Facilitation Centre and signages both in North Goa and South Goa District has been undertaken.
- Under Hinterland, upgradation /beautification from Ravindra Bhavan to Shivaji Circle has been undertaken.
- Development of Tourism Infrastructure at Mangueshi at Ponda, Mahadev Temple at Kakoda, Curchorem has been undertaken.
- Under Swadesh Darshan Scheme- II, Tourism Infrastructure Development, Parking and Illumination at Colva and Benaulim have been undertaken.
- Providing hotspot and wifi connections at Touristic locations at Santa Monica Jetty Panaji, Colva church and Sernabatim Beach.
- Development of Hinterland Tourism at Curchorem by providing wayside amenities near Bus stand.

Major Achievements

Beach Shacks/ Deck beds in Government property

During the current tourist season, Government has granted 50% concession in license fees to the shack allottees taking into account the financial losses incurred by them due to Covid-19 pandemic and the consequential restrictions imposed thereto. Clause No. 20 of the “Tourism Shack Policy”, which stipulates that the license fee payable by the shack allottees latest by 10th September every year was relaxed and the date of remittance of the license fees was extended upto 31/10/2021 for the adversely effected people due to covid pandemic. 240 shack allottees in North Goa and 72 in South Goa paid the license fees within the extended period. The Tourism Trade Support scheme, 2021 has been notified wherein registration of the B, C & D category

hotels/ accommodation and travel and tour operators will be provided with an Interest subvention on working capital Loans upto ₹ 25 lakh.

The International Charter Support scheme (waiver of landing fees) 2021 is provided to encourage more international chartered flights in the State, and also to reduce the burden on chartered flights reimbursement of a part of parking and landing fees at Dabolim International Airport, has been notified to a maximum of ₹ 1.00 lakh on the landing charges for international charters.

The Development of Tourist Villages various villages schemes has been notified based on their potential such as (1) demographics, (2) natural attractions, (3) potential for tourism development will be assisted for their development as Model villages. For creating necessary infrastructure in these villages a provision of ₹ 5.00 crore has been made.

The Goa Tourism Board has been constituted and notified with planning, policy making, strategizing and overseeing the implementation of various programmes and initiatives related to Tourism in the State for which a provision of ₹ 1.00 crore has been provided at the initial stage.

Tourist Facilitator Programme is proposed to increase the base of Tourist Guides to around 1000 guides over the next two years and the same will be applicable to Goan domicile persons in the age group of 18 to 40 years who have completed 10+2 or equivalent from a recognized board in India. Every participant will be granted access to: (1) Incredible India Tourist Facilitator (IITF) certificate program (Basic) of MOT and (2) State sponsored advanced curriculum covering state-specific content on various tourism attractions /

sites / services etc., soft skills, and etiquettes After completion, the participants are registered as a "Tourist Guide" with the Department of Tourism.

Scheme to provide financial assistance to the Scheduled Tribe community for skill development for undertaking tourism related activities and for development of tourism infrastructure in their areas has been formulated in order to undertake tourism related activities for the benefits and overall development of tribal community in the State of Goa. The same is notified in the Official Gazette on 02/09/2021.

Under the scheme, three proposals have been received under Tribal Sub Plan Scheme in Quepem Taluka. All the three proposals were placed before the Screening Committee and after discussion and deliberation the Committee has recommended one proposal for undertaking of Infrastructure development at Survey No. 1/4 of Barcem Village Panchayat of Quepem Taluka for benefit of Tribal Community at an estimated cost of ₹ 88.01 lakh under State Tribal funds Accordingly, GTDC has been entrusted for undertaking Infrastructure development at Barcem Village Panchayat.

Beach Lifeguarding and Water Safety Services

The Contract of Beach Lifeguarding and Water Safety Services has been outsourced to M/s. Drishti Lifesaving Pvt. Ltd., Dona Paula for the work of development, deployment, management and operation of Water Safety Services with all state-of-the-art facilities/systems on turnkey basis at 41 nominated beaches and 2 inland water bodies in the State of Goa.

The contract is now further extended for a period of 3 years w.e.f. 01.07.2019

and thereafter further extended upto 30.06.2024 aggregating a total period of extension of 5 years.

Since April 2021, 584 lives were saved from drowning by the Lifeguards.

Single Window System

Permission was granted for only one event under Major Event entitled “Seventh Edition of the RFC India- an International Off Road Motor Sport Challenge in Goa” during the period 01/04/2021 to 28/02/2022, the event was organized from 28th August to 04th September. The revenue generated from Major events is ₹ 76,700/-.

During the period 01/04/2021 to 28/02/2022, 235 minor events were authorized by the department and it has earned revenue of ₹ 36.40 lakh towards various fees.

Beach Cleaning

The scope of the work involves rendering services at 37 nos. of beaches in the State. The beach cleaning contract has been outsourced to M/s. Karnataka Commercial and Industrial Corporation Ltd., Bengaluru for a period of three years w.e.f. 01/10/2019 and has collected/transported the following quantity of waste to the Industrial Solid Waste Management (I.S.W.M.) at Saligao since April, 2020.

Wet waste in Kgs. – 11,60,380
Dry waste in Kgs.– 13,41,472
Besides, the contractor has collected 7,11,580 Kgs. tree waste/log.

Awards and Accolades

The State has received several awards and accolades for its participation in various events due to its professional and strategic approach as under:

Goa has been adjudged as a runner-up of the Best Adventure Destination award in the adventure category by India Today Group for Bunjee Jumping Mayem Lake, Bicholim Goa.

Goa was adjudged as Runner-up for the best beaches of Ashvem Beach, North Goa and for Coastal Destination Award in the beach & Coastal category by India Today Group.

As a part of Tourism Marketing and promotion the State participated two domestic events:

Place	Dates
IITM Hyderabad	3 rd to 5 th Dec 2021
ITM Jaipur	17 th to 19 th Dec, 2021

CHAPTER 12

SWAYAMPURNA GOA PROGRAMME

A program “Aatmanirbhar Bharat, Swayampurna Goa” was launched on 1st October 2020 by the Hon’ble Chief Minister through the inspiration from the Atmanirbharat Bharat – Garib Kalyan Yojana. The main objective of this Programme is to ensure Human Development through the Government beneficiary oriented schemes to reach at the door steps of the every eligible person, attaining self-sustainability by identifying and tapping the potential, identifying skills of the unemployed youths and needs of the people, thereby fulfilling the aspirations of the needy people with less Government and more Governance.

The below focal points were emphasized for implementation under the programme:

1. Toilet for all
2. Electricity for all
3. Tap water connection to all
4. Housing for all
5. Eligible persons under Dayanand Social Security Scheme
6. Eligible persons under Deen Dayal Swasthya Seva Yojana
7. Eligible persons under Griha Aadhar
8. PM Kisan, Krishi Card, Kisan Credit card to all farmers (Agriculture/Horticulture/ Dairy/ Fisheries/Poultry)
9. Aids to divyangs & senior citizens
10. Financial Inclusion (Bank account& Insurance - PM Jeevan Jyoti & PM Suraksha Bima Yojana).

To achieve the target of programme, 237 Government Officers were designated as a Swayampurna Mitras (SM) for all 191 Village Panchayats, 13 Municipalities & 1 for Corporation of City of Panaji. These Swayampurna Mitras visiting respective Village Panchayat/ Municipality on every Saturday’s or Sunday’s. The role of these officers was to identify the potential and bottle neck for implementation of various Government beneficiary oriented schemes. He is the focal point who guides and helps the public in administrative hurdles. Taluka-wise No. of Swayampurna Mitras is given in Annexure 33.

After the commencement of the programme the main challenge came in the way was identification of probable beneficiaries for various beneficiary oriented schemes across village panchayats and municipalities. Since SM’s visits village panchayat or municipality once in a week. There were limitations to gather information at grass root level. In order to overcome the drawback of gathering ground level data, locality wise Swayampurna Sahayaks were appointed on 21st April 2021.

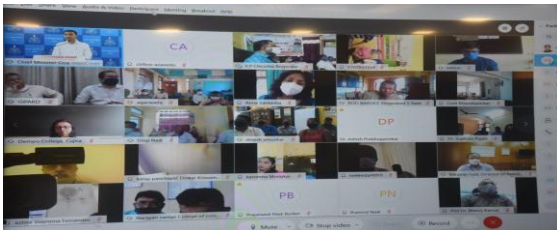
Further, in order to intensify the activities in municipal areas under the Programme, additional Swayampurna Mitras were designated on 19th November, 2021 covering 5-6 wards by each one of them.

During the review meetings it was noticed that there are many obstacles faced by the Swayampurna Mitras at the administrative level. In order to

overcome such circumstances Government has designated senior rank officers as Swayampurna Paryavekshaks to supervise and to provide hand holding support and motivation to SMs.

On 6th August 2021 Government has launched “Know Your Scheme” services under Goa online portal with the aim of “Less Government and more governance” in assisting the public by providing Government benefits at their door steps. Know Your Scheme is a platform developed under e-District Programme by Goa Electronics Ltd. through which schemes offered by various departments are easily accessible along with scheme notification, eligibility and benefits under one platform. The citizens are able to identify all the related schemes based on their personal, demographic, socio-economic, education, sector wise information on a single portal.

The Hon’ble Chief Minister is personally reviewing the implementation of the Programme along with the concerned Secretaries to the Government. Hon’ble Chief Minister has virtually conducted review meetings and addressed Swayampurna Mitras and Panch Members in order to sensitize, motivate and track its implementation. On 7th August, 2021 Hon’ble Chief Minister interacted with 10 Swayampurna Mitras who have done commendable work in their respective panchayats wherein these Swayampurna Mitras shared their ideas, suggestions and future plans.



Virtual Review meeting with the Hon’ble Chief Minister

A booklet was released in the hands of Hon’ble Chief Minister incorporating success stories & contact details of Swayampurna Mitras for the information of public at large.



In order to publicize about the Swayampurna Goa Programme, a website developed by Infotech Corporation of Goa Ltd. <https://swayampurnagoa.goa.gov.in> was launched on 2nd October, 2021 portraying various information such as contact details of Swayampurna Mitras & Link Officers of Line Departments, success stories & photographs of various activities conducted by the departments & NGOs in various Village Panchayats / municipalities for information of general public.

The office of the Hon’ble Chief Minister is regularly monitoring the progress of each & every Swayampurna Mitra on 10 focal points. The details of trainings & review meetings is given in Annexure 34. Initially, the progress by the respective Swayampurna Mitras was reported through google platform.

To avoid the limitations of the private platform and monitor data on real time basis, a reporting dashboard has been designed by the Goa Electronics Ltd. Online training has been imparted to the Swayampurna Mitras & Panchayat Secretaries for uploading and usage of the portal.

In the journey of Swayampurna Goa Programme one of the biggest mile stone was interaction of Hon'ble Prime Minister with stakeholders of the Programme. On 23rd October 2021 Hon'ble Prime Minister virtually interacted with the Swayampurna Mitras, Sarpanch, Chairperson and beneficiaries of the Programme. The live streaming of the said Programme was broadcasted on social media platform such as YouTube and Local DD channel. The same was also webcasted at the prominent locations such as Ravindra Bhavans, Community Halls of Municipalities & Panchayats.



Interaction with the Hon'ble Prime Minister

The progress of Swayampurna Goa Programme is being continuously monitored by Hon'ble Chief Minister in order to speed up the development of delivering benefit to the maximum number of people in the society. In this process on various occasions of Sarkar Tumchya Dari (Government at your doorstep) Hon'ble CM visited various talukas, constituencies and reviewed status of Swaympurna Goa Programme by interacting with respective Swayampurna Mitras, Sarpanchs, Panch members and obtained their feedback, suggestions about the Programme.

Government started “Sarkar Tumchya Dari” (Government at your doorstep) Programme with an objective to take Government services and facilities closer to the citizens. Such 12 Sarkar Tumchya Dari Programme/camps were

conducted in various Assembly Constituencies in the State. In this one day Programme more than 40 departments have placed their service counters at single location wherein common man could avail various Government schemes/services. Many appeals of pending applications of ration cards, Aadhar cards, Kirshi cards were addressed on the spot.

Under the initiation of this programme, the aids were provided to the *Divyangs* in the State. Kissan Credit cards were issued to the fisherman community. Various equipment's were provided to the women community and agriculture farmers.

Swayampurna Yuva is an initiative that Government has taken to make youth aware about the employment opportunities and offer wide range of selection to the recruiters in the State. Two events of Swayampurna Yuva were organised by Labour and Employment Department on 27th October, 2021 in North Goa District and 30th October, 2021 in South Goa District.

In this one day event eminent speakers from various fields have delivered talks on Career guidance, Entrepreneurship opportunities and competitive examinations. Some of Government Departments, Semi - Government Departments and Banks also participated in the event. Under this initiative, more than 6,500 youth registered for the events, 60 private companies offered jobs to more than 1000 youth of the State.

The Swayampurna Goa Programme has completed successfully one year of its implementation significantly influencing more than twenty three thousand beneficiaries on all 10 focal points and beyond. The activities

conducted by the Departments in the Village Panchayat & municipalities is given in Annexure 35 and sector-wise No. of beneficiaries are given in Annexure 36.

In recognition of commendable work under the Programme, best performing Swayampurna Mitras, best Panchayats & Municipality and beneficiaries were felicitated on the occasion of 60th liberation day of Goa i.e. on 19th December 2021 in the hands of Hon'ble Prime Minister Shri Narendra Modi ji.



Felicitating of Best Swayampurna Mitra on 19/12/2021

During the same occasion Coffee Table Book on the theme "Swayampurna Goa" was released at the hands of

Hon'ble Prime Minister, covering few success stories and Government initiatives under Swayampurna Goa programme.



Release of Coffee Table Book

Some achievements of the program

- Common Service Centre has conducted 67 camps across the state in various Village Panchayats and more than 10,000 unorganised sector workers are registered on e-shram portal within two months.
- SLBC organised 102 camps to sensitize financial literacy of people across the State.

Special Initiatives by the Swayampurna Mitra

- Non Government Organisations also came forward to help people one such example is that the Swayampurna Mitra approached Rotary Club of Mapusa and under their 'Women Empowerment Program' extended generous support and donated 21 sewing machines to 21 women belonging to low income group from Assonora Village on 28/06/2021 for making them self-reliant through swayamrojgar.
- Beautification of Gonsua Tollem at Village Panchayat Betalbatim has been carried out with joint efforts of Sarpanch and Swayampurna Mitra in coordination with Water Resources Department. The revival of lake will help many villagers of Betalbatim.
- As per the request of Swayampurna Mitra and Panchayat, 143 people from Village Panchayat Usgao jurisdiction are recruited on Permanent/ temporary/ apprentice/ contract basis in major industries i.e. Nestle, MRF, P & G and Devayani foods under the ABSG Mission.
- Free Eye check-up camp organised on 25/08/2021 at Assonora total 69 persons were detected with cataract. They are facilitated for free cataract surgery in batches. This was conducted in association with the North Goa District Hospital, Mapusa and Rotary Club of Mapusa.

PHOTO GALLERY



PM interaction with Swayampurna Mitra and Beneficiaries on 23/10/2021
Villagers watching the program at VP Guleli



Swayampurna Yuva Program



Hon'ble CM reviewing Progress of Swayampurna Goa Program on the occasion of Sarkar Tumachya Dari at Shiroda Constituency on 26th November 2021



PM interaction with Swayampurna Mitra and Beneficiaries on 23/10/2021 at Rajiv Gandhi Kala Mandir Ponda



Distribution of Stitching Machines at Assonora Village Panchayat



Fish Seller ID card Distribution at Salem Village Panchayat

CHAPTER 13

SCIENCE, TECHNOLOGY AND ENVIRONMENT

Various schemes, activities and programmes are implemented by the Government towards popularization of Science and Technology projects relevant to the State.

To achieve objective of popularization of Science and Innovation and also to bring about scientific temperament among the young generation, various Science and Technology (S&T) based activities/schemes are undertaken by the Department of Science and Technology and Waste Management (DS&T&WM) with the help of line departments, educational institutions, NGOs, other research institutions etc. Further, DS&T&WM is mandated with management and treatment of all types of wastes generated in the State, in safe and scientific manner.

Science and Technology Programmes

Grant-in-aid was released to appropriate S&T based research projects of applied nature, relevant to the needs of the State. The projects are being implemented through Educational Institutions, Government Departments and deserving NGOs. Preference is given to S&T projects in the fields of energy conservation measures, treatment and disposal of solid waste, agriculture, biodiversity, sustainable management of natural resources, etc.

The programmes are implemented through two major schemes which are notified for providing financial assistance to researchers in Science and Technology and to organize science seminars/ workshops/ science exhibition etc. and providing financial assistance to travel within India and

abroad to attend seminars/ workshops etc.since 2020-21.

In addition, a scheme "To provide grants to students of High Schools and Higher Secondary Schools to visit reputed institutions/ seminars / exhibitions in India" has been notified in which 40% reservation is kept for ST students.

Grant-in-aid amounting to ₹ 23.93 lakh has been released for researchers in the field of Science & Technology and for projects of students as part of academic curriculum for the year 2021 - 22 till date and the details are given in Annexure -37A.

Grant-in-aid amounting to ₹ 6.57 lakh has been released to conduct seminars, workshops, awareness programmes, exhibitions & providing financial assistance to teaching faculties, researchers and subject specialty experts to participate in science seminars & workshops in India and abroad in the field of science and technology and the details are given in Annexure- 37B.

Besides, Grant-in-aid amounting to ₹ 59.85 crore has been released to other organizations in the field of Science and Technology and Innovations under special pattern of Assistance and the details are given in Annexure- 38

Remote Sensing Applications

State Remote Sensing Centre at Saligao, Bardez- Goa provides grants to develop infrastructure and procure state-of-the-art equipment and data.

Various projects related to the State viz, zoning atlas for sitting of industries, cropping/ plantation pattern for irrigated

areas, agricultural pattern areas, land use estimation, etc are carried out.

Promotion of Information Systems in Science & Technology

Grants are provided to science Association/ GSCST regularly for their activities and common facilities are provided in school / institutions to cover maximum possible areas for promotion of information systems.

Major achievements of different schemes during 2021-22

Financial assistance of ₹ 33.50 lakhs have been sanctioned to various educational institutions / NGOs in the State for taking up research projects in Science and Technology and Innovations.

Grants to the tune of ₹ 17.20 are provided to the Association of Friends of Astronomy to conduct various annual science popularization and awareness programmes for students and public at the Public Astronomical Observatory (PAO) at Junta House, Panaji and also other branches of PAO in the State.

Goa State Innovation Council (GSInC) has been also supported financially by providing grants to the tune of ₹ 50.00 lakhs, to take up programmes for school teachers, teaching science subject with the objective to train them in innovation and creativity.

Goa State Council for Science and Technology (GSCST)

Initially, Goa State Council for Science and Technology (GSCST) has obtained Geographical Indication (G.I.) for Feni and thereafter for Khola Mirchi, Harmal chilli, Goan Khaje and Mandoli Banana.

Applications have been filed for obtaining GI Indication for Goan popular

sweet Bebinca, Sat Siro Bhendo, Goa Mankur (Mango), Goa Cashew and Agassium Brinjal which is under consideration of the GI Registry.



Launching logo of Goa Kunbi Saree

The GSCST is also in process of filing application for Geographical Indications for other popular Goan products i.e. Korgut Rice, Taleigaon Brinjal, Coconut Feni, Goa Mangelal Mango and Kunbi Saree. Further, it is also proposed to file GI applications for Coconut, Jaggery, Halsano, Fish Curry Rice and Dodol (Goan Sweet).

Till date, the total financial grants released to GSCST for the above purpose is ₹ 10.82 lakh. In addition, NABARD, Goa office has sanctioned and released financial assistance of ₹ 2.45 lakh to GSCST to take up the project of GI filing for Goan produce.

The Goa State Innovation Council (GSInC)

The Goa State Innovation Council (GSInC), which is constituted by the State Government is financially supported by the Department of Science and Technology and Waste Management (DS&T&WM) by releasing annual grant-in-aid to the maximum of ₹ 50.00 lakh under Special Pattern of Assistance.

The initiatives taken up by GSInC during the year (2021-2022) till date are given in the Annexure - 39

Goa Waste Management Corporation (GWMC)

The Goa Waste Management Corporation (GWMC) has been formed by the Government under the aegis of this Department on 2nd October 2016 with the mandate to collect, segregate, treat and dispose the solid waste and other wastes generated in the State in a Safe and Scientific manner.

The Saligao Solid Waste Management Facility



The Saligao Solid Waste Management

The Saligao Solid Waste Management facility caters to the waste of 27 Village Panchayats. The facility for scientifically treating dry waste is extended to all over the parts of Goa. The recyclable waste is disposed through recyclers and baled non-recyclable waste is transported to Cement Factories at neighboring states for Co incineration.

Whereas, the Bio-degradable waste after screening is sent to bio digester fermenter tank, where due biomenthanisation, Methane Gas is extracted which is fed into Bio Genset as fuel to generate electricity. The Facility generates about 0.7 MW of electricity daily, which is partly used in the facility and remaining is fed into electricity grid.

The facility helps in reducing releasing methane into the atmosphere which in turn supports in reducing Green House gases, which otherwise such waste would have been dumped in open which releases gases due to decomposition into the atmosphere. The total waste treated by the Saligao Waste Treatment Facility from April 2021 till December 2021 is 31,313 tonnes.

Work of Enhancement of Integrated Solid Waste Management Facility at Saligao, Bardez Goa from 100 TPD to 250 TPD, to treat and dispose additional waste scientifically as per SWM Rules 2016 was completed.

Goa Waste Management Corporation, (GWMC) has proposed following 3 such similar facilities in 3 different zones of Goa for effective waste management i.e Cacora, Bainguinim & Verna.

Integrated Solid Waste Management Facility at Cacora, Quepem Goa.

This facility will cater waste from villages of Sanguem, Dharbandora, Quepem & Canacona Talukas. The plant is designed to treat and dispose solid waste scientifically as per SWM Rules 2016. The construction work commenced in 2019-20 and is likely to be completed by April 2022

Integrated Solid Waste Management Facility at Bainguinim, Tiswadi Goa.

This facility will cater waste from the Ponda and Tiswadi Talukas. The plant is also designed to treat and dispose solid waste scientifically as per SWM Rules 2016. The land has been transferred to GWMC by CCP Environment clearance has been granted by SEAC committee. RFQ has been re-floated on 28-07-2021. The same is opened and scrutiny is under process.

Common Hazardous Waste Treatment Storage and Disposal Facility at Pissurlem, Sattari Goa

The construction of common hazardous waste treatment storage and disposal facility at Pissurlem is under process which will treat the hazardous waste from the state of Goa. Till date, 60% work has been completed.

Common Bio-Medical Waste Treatment facility (CBMWTF) at Kundaim – Goa

The facility will treat the biomedical waste from the State of Goa. The Biomedical waste will be treated and disposed scientifically as per the Bio- Medical Waste Management Rules, 2016.



Biotic plant

The work of the plant was commenced during the year 2020-21 and now the plant is ready and has made operational under trial run basis.

E-waste management facility at Pissurlem - Sattari Goa

This facility will manage scientifically all E-waste generated in the State of Goa, i.e. collecting, storage, dismantling and disposal through authorized recycler. Work order is issued to contractor on 27/08/2021. A total of 78.95 tonnes e-waste is collected and sent to recycler till date.

Collection, segregation and transportation of solid waste from National Highways, State Highways and other District roads

The objectives of the above initiative is to keep the major roads clean and free from road side littering. The total quantity of 380 tonnes of dry waste is collected from April 2021 to December 2021 and deposited at SWMF at Saligao.

- The total Dry Waste Collected from Panchayats and schools all over the State from April 2021 till date is 1123 tonnes.
- The total RDF disposal from Saligao Waste Treatment Plant is 16274 tonnes.
- Total RDF disposal from GWMC baling stations is 7535 tonnes.

Remediation of Legacy waste dumpsites in the State of Goa

The objectives of this initiative is to manage scientifically all the legacy waste dumpsites in the State of Goa. So far, GWMC has completed the remediation of below mentioned legacy waste dumpsites.

- Sonsoddo Legacy Waste Dumpsite - 1,20,000 m³ (Completed)
- Campal Legacy Waste Dumpsite – Completed
- Mapusa Legacy waste Dumpsite - 70,000 m³ (Completed)

ENVIRONMENT & CLIMATE CHANGE

Up gradation of environment and abatement of pollution in the State is undertaken through various schemes. To achieve these objectives, environment based activities and environmental programmes are undertaken including research projects with the help of line departments,

educational institutions, NGOs, other Research Institutions etc.

Major Work

- Preparation and finalisation of the “Coastal Zone Management Plan (CZMP)” for the State of Goa of 2011 which is in final stage.
- Identification of wetlands in the State of Goa to harness water.
- Noise Monitoring mechanisms to effectively implement the Noise Rules, 2000; in the State of Goa.
- Preparation of Action Plan for Noise Level Monitoring in the State.
- Preparation of EPR policy is in process.
- For engaging the services of National Institute of Oceanography (NIO) for monitoring riverine and riparian biodiversity on sampling mode.
- Action Plan for restoration of polluted river stretches.
- Establishment of seed bank for preservation of Germ plasm which is endemic and endangered is in under process.
- PPR for Integrated Coastal Zone Management through Society of Integrated Coastal Management (SICOM) grant towards World Bank and Central Govt.
- Demarcation of Ecological Sensitive Areas (ESAs) of Western Ghats is under process.
- Zonal Master Plan is in process.
- Action Plan for Plastic Waste Management in the State.

Achievement

- Grant has been released to Goa University for research project

entitled “Biodiversity of metals in Zuari estuarine sediments and their bio-accumulation in edible biota, Goa, west coast of India

- GSBB has been entrusted with the task of taking up systematic plantation program as a part of compensatory afforestation for Mopa Airport.
- All 205 People’s Biodiversity Registers (PBRs) are already validated at BMC level, out of which 36 have been validated by Thematic Expert Committee (TEC) on PBR and its Validation at State level.
- GSBB has distributed 2,41,845 plant saplings under, the Compensatory Afforestation of 10 times the number of trees felled at Mopa airport site for year 2020-21, in association with Department of Civil Aviation, Department of Forest and concessioner GMR.
- GSBB has virtually celebrated International Day for Biological Diversity (IDB)-2021 on 22nd May 2021.
- GSBB has organized Goa State Biodiversity Conservation Awards 2021.
- State Action Plan on Climate Change (SAPCC) is presented and approved by Cabinet.
- GSBB has started Project GoVan-Conservation of Biodiversity through Livelihood Interventions in the State of Goa. The first multiprocessing center is set up at Pali- Surla Goa.
- GSBB is implementing agency for Herbal and Spices cluster under Cluster Development Committee (CDC) under SFURTI. MS, GSBB is coordinator for CDC.
- The first Biodiversity Heritage Site was notified at Purvatli Rai, Surla, Bicholim, Goa.

Goa State Wetland Authority (GSWA)

Achievements

Goa State Wetland Authority (GSWA) has notified seven (07) Wetlands under Wetland Conservation and Management Rules 2017, in the State of Goa. Other identified wetlands are in the process of notification.

CSIR-NIO is empanelled agency for the task of preparing brief document.

GSWA has constituted Technical Committee (TC) to review brief documents, management plans and advise on any technical matter referred by GSWA and Grievance Committee (GC) to provide a mechanism for hearing and forwarding the grievances raised by public to the authority.

GSWA through local public participation and voluntary organizations, have taken initiative and started a project “*Shram Sahkti se Jal Samrudhi*” for restoration and management of waterbodies in the State.

Every year World Wetlands Day is celebrated by GSWA in association with Goa State Biodiversity Board and Ministry of Environment, Forest and Climate Change. Wetland day 2021 celebration was held at Van Bhavan, Altinho and virtually through zoom platform.

Goa State Pollution Control Board

The Goa State Pollution Control Board monitors the air and water quality under the Central Pollution Control Board sponsored projects National Air Monitoring Programme (NAMP) and National Water Monitoring Programme (NWMP).

The NAMP and NWMP projects covers 18 air quality monitoring locations and 64 water quality monitoring locations

respectively within the State of Goa, funded by the Central Pollution Control Board, New Delhi under the National Air Monitoring Programme (NAMP).

FOREST

Large stocks of seedlings are provided every year by the Department to individuals, institutions and private organizations / government departments etc., to plant in areas available with them. Efforts are being taken to promote ecotourism in the State to enable people to see and appreciate the rich biodiversity and scenic beauty of the forests.

Government of Goa, for promotion of agro forestry and commercial tree plantations on non-forest lands has exempted registered commercial tree plantation area and all the trees raised there in from the provisions of the Goa (Preservation of Trees) Act, 1984.

A dedicated online portal on Goa Online has been made available for registration of such plantations. This is one more step of Government towards Swayampurna Goa, Atmanirbhar Bharat and Ease of Doing Business.

Forest Cover

As per the “India State of Forests Report (ISFR), 2021” the forest cover of the State is 2,244.21 sq km which is 60.62% of the State’s geographical area in the State. Forest cover in the State has increased by 6.72 sq km as per ISFR, 2021 compared to the previous assessment reported in ISFR 2019.

Tree Cover

Tree cover of the State as per ISFR, 2021 is 244 sq. km., which is 28 sq. km. lesser than previous assessment reported in 2019. Altogether, 67.21% of the geographical area of the State is under forest and tree cover as per ISFR, 2021.

Mangrove Cover

A total mangrove cover in the State of Goa is 27.34 sq. km., as per India State of Forest Report 2021, which has recorded an increase of 1.34 sq. km. over the previous assessment in ISFR, 2019.

Afforestation

A Gram Upvan has been created at Harvalem Village, Sankhali and subsequently named as “Netaji Subhas Chandra Bose Gram Upvan” on the occasion of the World Environment Day, 2021.

Conservation and Improvement of Forest, Biodiversity and Tree Cover

Awareness programmes has been conducted in various schools and colleges and other locations in the State of Goa about tree plantation and environment on the occasion of Vanmahotsava 2021. More than 5.0 lakh saplings of forestry, ornamental and medicinal species has been distributed free of cost to public and institutions from the nurseries raised by the Forest Department.

Protection of Wildlife

The Wildlife Awareness campaign was assumed in the month of October 2021 with the participation of schools and colleges in different competition like online drawing, video on activity, build a Bird Nest, Photography, Poster making, Essay competition, etc. through online media / web and Essay competition in English, Marathi and Konkani, Debate / Quiz competition.

A total of 1509 wild animals were rescued and re-habilitated during the current financial year.

Table No. 13.1

No. of wild animals rescued and re-habilitated

Sr. No.	Types of Wildlife	No. of Wildlife rescued & rehabilitated (Nos.)
1	Mammals	75
2	Reptiles	5645
3	Birds	49
4	Others(insects etc.)	3
	Total	5772

A revenue of ₹ 1.74 crore has been generated from entry fees and other ecotourism activities and ₹ 1.27 crore has been generated through sale of forest produce and other activities for 2021-22 (till December 2021).

Turtle Conservation Programme

Turtle Conservation Programme was initiated at Agonda, Galgibag and Morjim beaches. Total 32 nesting's of Olive Ridley Sea turtle were recorded during the year 2021. A total 2,614 eggs laid of which 1,567 hatchlings successfully emerged out and released back to sea. The survival of the hatchlings is approximately 60%.

Promotion of Nature Education and Ecotourism in Protected Areas

During this year total 268 local youths have been trained as Nature Guides. Three Nature Interpretation Centres and Nature Education Centres are being developed with stay facility for students and others in forest area.

05th Bird Festival at Chorao was organised. The festival has gained wide popularity and delegates both national as well as foreign, participated enthusiastically. Malabar Tree Nymph was declared as the 'State Butterfly of Goa' on the occasion.

Soil and Water Conservation measures

Under Soil Conservation measures, more than 100 check dams of various sizes have been constructed.

Under the scheme of Tribal Sub Plan and Schedule Caste Development Scheme, 4 retaining walls of various sizes have been constructed at the cost of ₹ 12.8 lakh.

Under the Rehabilitation of Degraded Forest Scheme, 12 ha. Cane plantation has been maintained involving an expenditure of ₹ 19.88 lakh generating an employment of 4,911 man-days.

The staggered trenches are made at the cost of ₹ 19.54 lakh generating an employment of 4,825 man-days. Apart from this, 108 water bodies / waterholes have been created under Soil and Moisture Conservation (SMC) works in the forests to ensure availability of water to wildlife throughout the year and to harvest rain water in forests as per 'Catch the Rain' campaign of Government of India.

Conservation and Medicinal Plants

State Medicinal Plants Board has been organizing awareness programmes and workshops for farmers to sensitize towards development and cultivation of medicinal plants.

Around 2.92 lakhs medicinal plant seedlings were distributed to the public, under various schemes during 2021. Ninety-Seven (97) Vaidya Mitras were registered for conservation and promotion of Traditional Medicinal knowledge with the Forest Department.

Further, 77 School Herbal gardens and Nurseries have been created with the provision of planting stock. Scientific documentations such as 'Medicinal plants at Aushadhi Vatika' and 'Trees of

Panjim' were released during the period.

INFORMATION TECHNOLOGY

The Department of Information Technology (DoIT) has been created for evolving a suitable IT ecosystem with an aim to utilize the benefits of ICT tools for efficient citizen service delivery in a convenient, affordable, accessible and transparent manner thereby making Goa a promising IT Destination in the Country.

Achievements

Setting up of Electronic Manufacturing City at Tuem Village, Pernem Taluka

The Government of Goa has identified and approved the setting up of Electronics Manufacturing Cluster under the Electronics Manufacturing Cluster (EMC) Scheme of the Electronics & Information Technology (Meity), Government of India in Tuem village of Pernem Taluka in an area admeasuring 5,97,125 square meters.

The Park has been designed with a capability to generate employment for around 2,000 to 3,000 employees for a period of 3 to 5 years. The same is being implemented through Info Tech Corporation of Goa Limited (ITG).

The Land Allotment Policy was notified in August 2021. Department of Information Technology has invited applications for allotments of plots vide notice dated 16/08/2021 for Industrial Plots-15 nos. (ranging from 2-8 aces) and Micro Industrial Zone Plots-45 nos. (300 sq. Mtrs to 800 sq. Mtrs.).

Investors Meet was organized on 24/09/2021 in order to showcase the project to various investors and to create better visibility among the ESDM

ecosystem. The event was supported by the various industry associations and by Invest India team.

There was an overwhelming response and as many as 45 representatives from various corporate houses attended the event. Further, 30 representatives undertook the site visit to Tuem as part of the Investor Meet.

Currently, 09 applications has been received out of which approval the Government for allotment of land has been received for 03 applications as per recommendations of the Screening Committee.

Accordingly, Initial Offer of Allotment was issued to all 3 applicants. Thereafter, Allotment Order has been issued to 2 applicants; based on their acceptance of initial offer. The name of the applicants are as follows.

(a)	M/s SamanviiDigimedia Art & Solutions Pvt. Ltd.	Industrial Plot No. 14 10,925.59 sq.mtrs.
(b)	M/s Tangentia India Technologies (Pvt) Limited	Industrial Plot No. 09 11,185.92 sq. Mtrs.

Special Paper Vehicle (SPV) by name "Tuem Electronics City Ltd." has been constituted to manage the cluster in accordance to Meity guidelines.

The infrastructure works are currently in full swing wherein internal roads and street lighting are nearing completion; construction of Administrative Block is underway which shall be completed shortly and construction of Fire Station would be commenced shortly.

Goa Startup Policy

The Goa Stat-up Policy 2017 was notified in 2017 and 14 set of Schemes has been formulated for disbursement

of Incentives under the Start-up Policy. A total of 116 registered start-ups have been registered in the State of Goa under the Policy.

Incentives amounting to ₹ 2.21 crore have been approved for start-ups of which ₹ 1.42 crore have been disbursed.

New Startup policy has been launched in October, 2021 wherein special focus has been given to women led start-ups and also incentives disbursement process has been eased and provision for VC fund has been made.

The State Government has also conducted various events to support the Startups within the state which saw an immense participation from the Startups and the response was overwhelming. Following two major events were included.

‘Anthaprerna’

Start-up Promotion Cell, Department of Information Technology, Government of Goa in collaboration with Atal Incubation Centre (AIC) & Goa Institute of Management (GIM) hosted the Goa Start-up Conclave & Entrepreneurship Summit- Anthaprerna on 29th August and 03rd September 2021, wherein Goa’s innovation ecosystem, infrastructure, presence of sector-agnostic and sector-focused incubators and accelerators were highlighted.

Besides, this event also provided a platform for start-ups, investors, mentors and other ecosystem enablers to connect and grow as a community by sharing knowledge, network and resources.

Virtual Start-Up Conference and Exhibition

Start-up Promotion Cell, Department of Information Technology, Government of

Goa and Confederation of Indian Industry (CII) Goa had organized a virtual Start-Up Conference & 15 Day Exhibition on the theme 'Enhancing the Start-up Eco-system in Goa' on 09 December 2021. Eminent speakers from Indian Startup Ecosystem shared their thoughts on entrepreneurship, innovation, start-up- industry partnerships and early stage investing.

Goa IT Policy-2018

Under Goa IT Policy-2018, 66 applications have been received till date, out of which 22 applications are for IT Policy Registration and 44 applications are for scheme incentives. A total of 15 IT policy Registrations have been approved and 9 scheme incentives have been approved and disbursed.

IT Knowledge Centre (ITKC)

The Department of Information Technology (DoIT), Government of Goa, through M/s Info Tech Corporation of Goa (ITG), has setup various IT Knowledge Centres (ITKCs) across the State.

M/s Info Tech Corporation of Goa (ITG), after following the necessary codal formalities, had initially empanelled two training institutes M/s Agate System Pvt. Ltd and M/s Vocman India Pvt. Ltd. Considering the Scope to train more Students, M/s ITG has now selected four training institutes, namely M/s Agate System Pvt. Ltd, M/s Comtech Computer Academy, M/s Gyan Tech, M/s Infotech Training Academy LLP.

A total of 898 beneficiaries have been benefited during the year 2021-22 (till December 2021).

Table No.13.2

Course-wise No of Beneficiaries during the year 2021-22 (till December 2021)

Sr. No.	Courses	No. of Beneficiaries.
1	Certificate in Basic IT Skills	202
2	Certificate of Basic Internet	238
3	Certificate of MS Office skills	58
4	MS Excel	3
5	DTP course with Photoshop and PageMaker	18
6	Accounting with Tally	76
7	Course in CorelDraw	13
8	Diploma in MS Office and DTP	161
9	Diploma in MS Office and web designing	12
10	Diploma in Web Designing and DTP	23
11	Diploma in MS Office & Tally	14
12	Web Designing course with Front Page / Dreamweaver	17
13	Basics in Hardware and Networking	48
14	Soft Skill Development Course	4
15	Programming in C++	5
16	Programming in C	6
Total Beneficiaries		898

Empower ST/SC Communities using ICT Tools through IT Knowledge Centre (ITKC)

The Department of Information Technology has formulated the scheme "Empower ST/SC Communities using ICT Tools through IT Knowledge Centre (ITKC)" under the Tribal Sub Plan (TSP) and Schedule Caste Sub Plan (SCSP). This scheme is implemented through M/s ITG through the IT Knowledge Centers (ITKCs) located at various areas in the State. 882 ST/SC (ST: 837 SC: 45) beneficiaries were trained during the year 2021-22.

Table No.13.3
No of ST/SC trainees trained under different courses during the year 2021-22 (upto December 2021)

Sr. No.	Course Name	No. of Beneficiaries.
1	Certificate in Basic IT Skills	202
2	Certificate of Basic Internet	238
3	Certificate of MS Office skills	57
4	MS Excel	3
5	DTP course with Photoshop and PageMaker	18
6	Accounting with Tally	75
7	Course in CorelDraw	13
8	Diploma in MS Office and DTP	161
9	Diploma in MS Office and web designing	12
10	Diploma in Web Designing and DTP	23
11	Web Designing course with Front Page / Dreamweaver	17
12	Basics in Hardware and Networking	48
13	Soft Skill Development Course	4
14	Programming in C++	5
15	Programming in C	6
Total Beneficiaries		882

Website Accessibility Campaign

This Project is part of the Accessible India Campaign (AIC) wherein Government websites are to be made accessible to Persons with Disabilities as per Guidelines for Indian Government Websites (GIGW) and Web Content Accessibility Guidelines (WCAG).

The project is in progress through the implementing agencies for M/s Terasoft Technologies and M/s R.V. Solutions Pvt. Ltd., identified by ERNET India.

Table No 13.4
Status of websites during the year 2021-22.

No. of Websites	No. of Websites made accessible	No. of Websites work in progress
18	15	3

During the year 2021-22 (till December 2021), websites of General Administration (GAD) and Directorate of Technical Education are at hosting Stage and website of Directorate of Public Grievance is at User Acceptance Stage.

E-District (Goonline)

The Goonline portal (www.goonline.gov.in) acts as the single window portal for various Governments to Citizens (G2C), Government to Business (G2B) services of all Government Departments and also various Ease of Doing Business services. The portal is being extensively used by the citizens for availing various services.

a) Current status of Goonline

- Currently 163 services of 27 Departments are live.
- 6.25 lakh unique registered users (Almost 50% of the State population).
- 21.16 lakh transactions including utility services
- 8.79 lakh utility services availed.

b) The Portfolio of service included NOCs, Licenses, Certificates, Utility, Payment, etc.

c) Number of services delivered without any visit to any office - 50+.

d) EoDB achieved –All services –Single Window clearance.

e) 84% of the users have reviewed with Good and Very Good feedback for Goonline portal.

f) “Know Your Scheme” service for Eligibility Verification for Government Schemes has been Launched .Currently, 210 schemes of 21 Departments are available under the service.

g) “No Visit to No Document” Complete paperless service application with end to end Interdepartmental data integration of various e- Governance Databases like PAN, Aadhar, Birth, Death, Record of Rights, Property registration.

e-Tendering

The State has migrated to new e-Tendering portal of NIC with effect from 25-08-2021 and is hosted at <https://eprocure.goa.gov.in>.

The new solution offers tendering cum auctioning (forward and reverse) with the objective of automating the entire Tendering and Auctioning process for the Government of Goa.

A total of 2939 tenders have been floated by 46 departments on the GePNIC portal till date.

Data Entry Agency Empanelment

In order to assist/ facilitate the State Government Departments, PSUs, Corporations and other entities falling within the jurisdiction of the Government of Goa, the Department of Information Technology has empanelled the Agencies for providing Data Entry Services to various Government Departments, PSUs, Corporations, Autonomous bodies etc. as per their need.

Currently, department has empanelled 9 agencies for a period of 5 years with effect from 17/11/2021.

CHAPTER 14

SUSTAINABLE DEVELOPMENT GOALS

SDG INDEX: GOA STATE

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), having 169 targets which work on three pillars viz: Economic, Social, and Environmental pillars. If anyone of this pillar is weak then the system as a whole is unsustainable. These goals oblige as an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth - all while tackling climate change and working to preserve our oceans and forests.

The SDG Index is an assessment of each country's overall performance on the 17 SDGs, giving equal weight to each Goal. The score signifies a country's position between the worst possible outcome (0) and the best, or target outcome (100). Accordingly the score is classified in four categories viz: Achiever (100), Front Runner (65-99), Performer (50-64), Aspirant (0-49).

SDG India Index is published annually by the NITI Aayog which tracks the progress of all the States and Union Territories (UTs) on a set of important National Indicators, measuring their progress on the outcomes of the interventions and schemes of the Government of India.

The SDG India Index is intended to provide a holistic view on the social, economic and environmental status of the country and its States and UTs.

As a State, it is necessary to evaluate the schemes and policies of the Government. This evaluation requires suitable indicators as guiding principle towards accomplishing the goals.

The SDG India Index is an essential step for comprehensive tracking of the State's performance at National level. Currently, the State is supposed to synchronise its data through the concerned Ministry's portal, which in turn is espoused by the NITI Aayog to judge the progress of each State, which is reflected in their dashboard.

A comparison table on SDG India Index, highlighting the Goa State performance is shown at Annexure no. 39, synchronising the SDG India Index 2018 (1.0), 2019-20 (2.0) and 2020-21(3.0).

Evaluation of SDG India Index

Goa State

The State coincided its SDGs evaluation process through the Indicator Framework selected by NITI Aayog for ranking in its annual publication of SDG India Index since 2018.

The evaluation of ranking provided in the SDG India Index publication has been shown in a tabular form at Annexure No. 39.

The State has elevated in the composite score from 7th position to 4th position in comparison from SDG India Index 2.0 (2019-20) to SDG India Index 3.0 (2020-21) publication. It is remarkable to note that the State of Goa is the only State in the country to achieve 100 index score in the SDG-6: Clean water & sanitation and SDG-7: Affordable & clean energy, thereby securing 1st position.

The State needs to upraise its performance in SDG-12 Sustainable consumption & production and SDG-13: Climate action, as these goals fall in the Aspirant category.

The State also needs to focus on SDG-5: Gender Equality, SDG-14: Life below water, SDG-15: Life on land and SDG-16: Peace, justice & strong institutions as they need to be lifted from the category of Performer to Front Runner.

The overall composite score of 'SDG India Index' is risen from 65 (SDG 2.0) to 72 (SDG 3.0), to conclude on the Annexure No. 39. It is observed that the State is improving its performance towards achieving the SDGs milestone. A lot needs to be done in coming years

for the betterment of the State towards becoming a role model to the country and achievers of the SDGs by 2029.

The State has recently finalised its Goa State Indicator Framework (G-SIF) as on March 2022, based on the National Indicator Framework (NIF) version 3.1 published by Ministry of Statistics & Programme Implementation. The State is in urgent need for evaluating its Goa-State Indicator Framework and preparing State's own dashboard for monitoring & evaluating its own working system.

The next step on G-SIF is to prepare a centralised dashboard of the State for monitoring all the indicators of G-SIF. The Planning Department is committed towards providing real-time data, so that the actual data is portrayed at any given point of time, which will certainly be an instrumental tool for achieving SDGs within the stipulated time.

SDG URBAN INDEX & DASHBOARD 2021-22

The SDG Urban Index and Dashboard ranks 56 urban areas on 77 SDG indicators across 46 targets of the SDG framework. The data on these indicators have been sourced by NITI Aayog from official data sources such as NFHS, NCRB, U-DISE, data portals of various ministries and other government data sources.

The index and dashboard will further strengthen SDG localization and institute robust SDG monitoring at the city level. It highlights the strengths and gaps of ULB-level data, monitoring and reporting systems. Tools such as this index and dashboard will contribute for creation of an ecosystem in which all

stakeholders will be equipped to adopt and implement data-driven decision making. This transformative change is quite essential, given the increasing prominence of cities and urban areas in charting the future of development in India.

A city wise detailed analysis of the Urban Index is given at Annexure No. 40, it may be seen from the said annexure that Shimla stood at 1st rank securing 75.50 score, followed by Coimbatore at 2nd rank securing average scoring of 73.29 score securing second position and Chandigarh with 72.36 score securing 3rdrank. The city of Panaji scored an average score of 71.86, thereby securing 6th position in the Index. The scoring pattern of the cities have been justified in accordance with their respective individual scoring in the respective SDGs. Category wise graphical representation of the SDG Urban Index 2021 is shown at Annexure No. 41.

WASTE-WISE CITIES: BEST PRACTICES IN MUNICIPAL SOLID WASTE MANAGEMENT

The NITI Aayog came with the publication in December 2021 namely 'Waste wise cities - best practices in Municipal solid waste management' which showcases the 'city wise best practices' adopted in the Country towards Municipal Solid Waste Management, in which the best practices of City Corporation of Panaji (CCP) for segregation of waste at source and Bicholim Municipality for Plastic waste management were highlighted.

ADOPTING SOURCE SEGREGATION

The Best practices over source segregation of waste in Panaji city area were emphasized, Panaji has worked over the last 15 years to achieve 99 per cent segregation. Primary segregation was done in two or four bins by the households. In 2021, the city implemented 16-way segregation at source – this was done along with adopting several technologies and initiatives for waste management. The model provides significantly higher revenue from the sale of recovered goods, increasing the income of the workers involved in the value chain.

LESSON LEARNT:

The city has adopted a zero-waste and zero-landfill model by implementing decentralised waste management and treating waste at the source. Space constraints along with large quantum of waste in the city made the municipal city officials look into means such as innovative technologies, continuous information, education and communication (IEC), treating waste at source, waste reduction, etc., to manage waste.

The city has also looked into alternative mechanisms for channelizing non recyclable waste. Awareness campaigns have helped to promote source segregation of waste in the city.

Despite CCP's initiative, a few places still require continuous monitoring and regulation to ensure longevity of the zero-waste management initiative.

PLASTIC WASTE MANAGEMENT

The initiatives taken by the Bicholim Municipality were accentuated in the publication. The transformation of Bicholim Municipal Council (BMC) through the procedure for managing plastic waste begin with the collection of unsegregated waste, which was brought to the dumpsite at Lakherem. After maturing, the treated waste would be fed into a mechanical sorting machine to separate inert material from compost. But this method was inefficient, and the non-biodegradable component inevitably contained some biodegradable residue, which meant that it could not be processed and had to be dumped at the site. Due to this practice, Goa Waste Management Corporation (GWMC) dump became over 3,000 m³ in size.

The first positive steps were taken as early as 2005 when the BMC started door-to-door waste collection. But it was only after the Monitoring cum Working committee (McWc) was formed by the Government of Goa (in 2011) to aid Urban Local Bodies (ULBs) and other local bodies with technical guidance that BMC started paying attention to segregation of waste at source.

In 2015, the non-biodegradable waste components started being baled in machines, to be disposed of at cement factories for co-processing, with assistance of McWc. But not much non-biodegradable waste could be recovered since the BMC had not yet achieved proper waste segregation at the source. From 2016, when the Solid Waste Management Rules came into force, the BMC started actively addressing this issue by conducting

awareness camps about the necessity of segregation. BMC began sorting non-biodegradable waste into various categories to enhance sustainable plastic and other non-biodegradable waste management practices.

Finally, in January 2019, the BMC ventured into a Memorandum of Understanding (MoU) with the GWMC for five years to set up a Material Recovery Facility (MRF) at the existing dumpsite. BMC has allotted part of its land free-of-cost for operating this MRF for sorting and managing plastic waste. Thereafter this final step that Bicholim has been able to recycle or process all of its non-biodegradable waste, including plastic, and achieve 100 per cent material recovery, which means that pressure on the dumpsite has been reduced, resulting in health and environmental benefits to the city.

LESSONS LEARNT:

Waste can create value: Plastic waste management can be valuable to the community. In Bicholim, Sampurn(e)arth has made the project economically viable by increasing revenue generation with improved collection, segregation and disposal, and by prioritising valuable items when recycling waste. Since the staff is mostly local, their salaries are plied back into the local economy as well.

- Generation of livelihood: Many scrap vendors and others in the informal sector get an opportunity to be associated with the urban local body in terms of trading. Many direct job opportunities can also be created by setting up waste management facilities which hire locals.

- Outsourcing can help: The MRF is operated by Sampurn(e)arth Environment Solutions and UNDP. Through this outsourcing arrangement, BMC saves both time and money as it does not have to concern itself with processing and recovering waste.

- Plastic waste management: The best way to deal with plastic is to optimise segregation of waste. The more and more fractions of plastic is sorted into, the better the results are from a waste management perspective.

Export Preparedness Index 2021

NITI Aayog, in partnership with the Institute of Competitiveness, released the Export Preparedness Index (EPI) on 25th March 2022, which is a report on comprehensive analysis of India's export achievements. The index can be used by states to benchmark their performance against their peers and analyse potential challenges to develop better policy mechanisms to foster export-led growth at the subnational level.

The Export Preparedness Index is a data-driven endeavour to identify the fundamental areas critical for subnational export promotion, which is classified on the basis of 4 main pillars i.e. Policy; Business Ecosystem; Export Ecosystem; Export Performance.

The index ranks the States/UTs in 4 categories viz: Himalayan, Coastal, UT/City States and Landlocked.

The State of Goa is incorporated in the category of UT/City States, wherein it is ranked 2nd with a score of 41.95, 1st being Delhi with a score of 43.66. The overall position of the State is ranked at 14th position with 41.95 export preparedness scores. 1st being the State of Gujarat with a score of 78.86, followed by Maharashtra at 2nd with a score 77.14 and 3rd being Karnataka with a score of 61.72. The index promotes competitive federalism and a fair contest among States/UTs.

A lot needs to be achieved in this sector by strengthening our export promotion policy, export diversification, institutional framework, business environment, infrastructure, trade support, R&D infrastructure and growth orientation.

CHAPTER 15

UNIQUE IDENTIFICATION (UID) / AADHAAR

The Aadhaar system provides a single source offline/online identity verification across the country for the residents. Once residents enroll for Aadhaar, they can use their Aadhaar number to authenticate and establish their identity multiple times using electronic means or through offline verification, as the case may be.

This is the first nationally acceptable unique identity document which can prove both their identity and address. Ghost entries and duplicate entries can be checked by linking other documents with Aadhaar e.g. PAN card.

The Government of India in its Cabinet winter session has introduced making the linking of Aadhaar voluntary with the EPIC card, thus preventing the same voter to be registered in two different constituencies.

Vision

- To ensure security and confidentiality of identity information and authentication records of individuals.
- To ensure compliance of Aadhaar Act 2016 by all individuals and agencies in letter and spirit.
- To make regulations and rules consistent with the Aadhaar Act, for carrying out the provisions of the Aadhaar Act.

Aadhaar is not mandatory and cannot be enforced on the residents of India by the concerned authority. Hence there is a constant need to create a product whose benefits are strong enough to create a demand for enrolment.

The UID approach is designed on an on-line system i.e. data is stored centrally and authentication is done on-line which eliminates the hassles associated with different ID cards for different schemes

As per Regulation 12 of the Aadhaar (Enrolment and Update) Regulations 2016, the scheme implementing department is required to offer Aadhaar enrolment facilities to the beneficiaries who are not yet enrolled for Aadhaar in coordination with the existing Registrars in the State or by becoming a UIDAI Registrar itself.

Till such time that the individual/beneficiary gets an Aadhaar, alternate and viable means of identification shall be offered for extending the subsidy/ service/benefit if the beneficiary has enrolled for Aadhaar, Enrolment Identification slip and any of the documents such as Bank or Post Office Passbook with photo, Ration Card, Passport, Ration Card, Voter Identity Card, MGNREGA Card, Kisan Photo passbook, Driving license issued by the Licensing Authority under the Motor Vehicles Act, 1988 (59 Of 1988), Certificate of Identity having photo of such person issued by a Gazetted Officer or a Tehsildar on an official letter head or any other document as specified by the department

All Government Departments implementing Direct Benefit Transfer (DBT) schemes/ subsidies /services (Central) which have Aadhaar as an identifier for availing benefits are required to notify all such schemes/

subsidies/ services as required under Section 7 of the Central Aadhaar Act, 2016 to ensure that all these schemes are made Aadhaar compliant so as to migrate on the Aadhaar Payment Bridge (APB) to bring in total transparency in the implementation of Government programs thus eliminating ghost beneficiaries.

Further, on July 24, 2019, the Aadhaar and Other Laws (Amendment) Act 2019 has been notified which includes an amendment of Section 7 as under:

“In Section 7 of the Principle Act, after the words *the Consolidated Fund of India*, the words *or the Consolidated Fund of State* shall be inserted.

An Individual can check Aadhaar Authentication History of up-to 50 authentications in past 6 months with date and time of authentication, to help him in case of an unintended entry.

Aadhaar at Doorstep Facility:

Home enrollment facility is provided to very senior, old and infirm residents, divyangs (physically and mentally challenged residents) as well as bed-ridden residents on the basis of applications/requests made to the State Registrar or directly to the UIDAI.

UIDAI has roped in the services of India Post Payment Bank (IPPB) of Department of Posts through its network of postmen and Gramin Dak Seveks to provide doorstep services of child enrollment and linking of mobile phone to Aadhaar by using smartphones and biometric devices. Aadhaar helps pensioners to submit digital Annual Life Certificate online from home (without physically presenting oneself) through Jeevan Pramaan Portal. UIDAI has provided

details of all biometric devices which are permissible for capturing biometrics of a person on its official website www.uidai.gov.in

UIDAI provides ICT assistance to Health Centres/Hospitals and other institutions facilitating child birth and maternal care for provisioning of child enrolment lite client (CELC) to be deployed dedicatedly for Aadhaar linked birth registration (ALBR) of 0-5 years' children which also enables integration of Aadhaar enrolment ecosystem with the RGI's birth registration system.

The Age band wise Aadhaar coverage summary for the State of Goa as on December 2021, is as under:

Table No:15.1
The Age band wise Aadhaar coverage

Age	Projected Population (2021)	No. of Aadhaar assigned	(%)
0 to < 5 years	1,12,226	47,811	46.60
to < 18 years	2,39,952	2,68,030	111.70
18 years and above	12,06,822	12,81,223	106.16
Goa State	15,59,000	15,97,064	102.44

Aadhaar Centres /Kendras in Goa

There are 152 Permanent Aadhaar Enrolment Stations (PESs) in the State, extending Aadhaar enrolment and allied services to the public. Out of these, 33 PESs are operated by the State Registrar i.e. 24 nos. PESs through Government Departments implementing Beneficiary oriented schemes which require Aadhaar as an identifier for receiving benefits under the scheme, 06 through M/s Goa Electronics Limited (GEL) the agency on board the State Registrar. The remaining PESs are established by India Posts (85 PESs) and various Banks (37 PESs) throughout the State. The updated

details of the Aadhaar Kendras /PESs are available on the UIDAI website appointments.uidai.gov.in/leasearch.aspx.

21 Aadhaar Enrolment Kits have been acquired. Aadhaar services are also provided in camp mode given the countless requests for camps from Local Bodies, MLAs, Charity Homes, NGOs, Old Aged Homes, Hospitals and Other Institutions.

More than 80 special camps were organized at Village Panchayat level to facilitate the beneficiaries/applicants of the Aatmanirbhar Bharat-Swayampurna Goa program, the Chief Minister's initiative of Administration at your Doorstep-Sarkar Tumchea Dhari and Prashashan Gaonki Aur programs.

Table No:15.2

Aadhaar enrolments and updates carried out by the State Registrar (DPSE) as on January 2022

Sl. No.	Means	No. of enrolments
1.	PECs operated through GEL and Government Departments	10,81,774
2.	Anganwadi Camps	17,619
3.	Panchayat Camps	1,09,784
4.	Mobile updates/Home enrolments of bed ridden/physically & mentally challenged residents (divyangs)	1,055
5.	New born infants at 5 major hospitals	7,528
6.	TAB based enrolments (0-5 years) through Dte. of Women & Child Dev.	33,200
7.	Special enrollment drives in Government Primary schools	11,975
	Total	12,62,935

Direct Benefit Transfer (DBT)

The Central Plan Scheme Monitoring System (CPSMS), the earlier system of the Public Financial Management

System (PFMS), of the Office of Controller General of Accounts, was chosen to act as the common platform for routing of the Direct Benefit Transfer. CPSMS was used for the preparation of beneficiary list, digitally signing the same and processing of payments in the bank accounts of the beneficiary using the Aadhaar Payment Bridge of National Payments Corporation of India (NPCI), enabling digital payments and settlements systems in India, (an initiative of RBI and IBA).

Since the first payment made to a mother in Puducherry for the Janani Suraksha Yojana in January 2013, DBT emerged as a high priority and focus area of the Government in reforming Government delivery system by re-engineering the existing process in welfare schemes for simpler and faster flow of information/funds ensuring accurate targeting of the beneficiaries, de-duplication and reduction of fraud. In the past several years, DBT has emerged as the accepted way of delivering of over 450 development schemes to more than 900 million people through this mode. Since 2014, the Government has disbursed nearly 60 per cent of welfare and subsidies budget of the Union government directly to the bank accounts of beneficiaries.

Components of DBT

Primary components in the implementation of DBT schemes include Beneficiary Account Validation System, a robust payment and reconciliation platform integrated with RBI, NCPI, Public and Private Sector Banks, Regional Rural Banks and Cooperative Banks (core banking solutions of banks, settlement systems of RBI, Aadhaar Payment Bridge of NPCI) etc.

These systems constitute workflow based systems for Social Sector, Central Sector, Centrally Sponsored and State linked schemes and include functionalities such as application for schemes by beneficiary with details of bank account/Aadhaar, examination by scheme owners for eligibility of the beneficiary under scheme guidelines, initiate verification of bank account/Aadhaar, initiate payment through Fund Transfer Order, other MIS related functions etc. MNREGA, PM-AWAS, PM-KISAN, DBT-PAHAL etc. are some examples of such systems. While in many of the schemes, the payments are linked to Aadhaar, cases are processed with bank account number, in case Aadhaar is not available.

Payment and Reconciliation

On the selection of valid beneficiaries, the Scheme IT systems initiate the payment by payment instructions to PFMS which in turn is routed to banks after necessary validation of beneficiaries. PFMS has evolved as a robust payment and reconciliation platform integrated with more than 500 banks for verification of bank accounts of beneficiaries and for verification of Aadhaar seeding of bank accounts of beneficiary with NPCI. This pre-validation of benefit account/Aadhaar linked bank, drastically brings down the failure of the payments as the delays in amount being available in the hands of benefit core Banking Solutions Banks, being the last mile delivery channels play a very vital role in the DBT process flow. As all account based payments are routed through the core bank channels, processing efficiency at this stage coupled with flow of a reverse MIS impart desired momentum to the DBT program

Scope of DBT

All welfare/subsidy schemes or components of schemes operated by the Departments of Government of India and State Governments directly to beneficiaries implementing agencies, which involve cash/kind benefits transfers to individuals come under the purview of the DBT framework.

The transfer of cash benefits from Ministry/Department to beneficiaries happens through different routes, as given below.

- Directly to beneficiaries
- Through State Treasury Account to beneficiaries
- Through any implementing Agency as appointed
- Centre/State Government to beneficiaries

Public Distribution System (PDS), Food Corporation of India (FCI) is the Government agent responsible for procurement, movement, storage and distribution of food grains to Fair Price Shops. FCI issues the food grains at subsidized rates as fixed by the Government. The rates so fixed do not cover the full economic cost incurred by the Corporation. The difference represents the consumer subsidy for the PDS, and is paid to the Corporation by the Government of India.

Similarly, Government incurs internal expenditure for provisions of subsidies in kind on other products like kerosene, fertilizers, books, medicines, vaccines, etc. The matrix through examples depicts different categories of schemes which can be grouped on the basis of the type of benefits and the type of beneficiaries.'

Table No: 15.3
Type of benefits and the type of beneficiaries

Sl. No.	Type of Benefit	Individual Beneficiary
1	Cash	MGNREGA, PAHAL, NSAP, Scholarships
2	In-Kind	SSA, Mid-day meals, PDS, Assistance to State for control of animal disease.

Transfers/Payments from the Government to different Non-Government functionaries/ Service Providers

Apart from 2 categories of schemes, there is another category of Transfers/Payments from the Government to different Non-Government functionaries/ Service Providers who help in facilitation of Government schemes till the last mile. This category includes transfers made to various enablers of Government schemes like community workers, NGOs, in the form of honorarium, incentives, etc. for successful implementation of the schemes e.g. ASHA workers under NHM, Aanganwadi workers under ICDS, Teachers in aided schools, sanitation staff in ULBs, sanitation staff in ULBs etc. are not beneficiaries themselves but they are given salary/wages, training, incentives, honorarium etc. for providing their services to the beneficiaries/communities.

Pre-Requisites for DBT

- Identification of Beneficiaries and Digitization of Beneficiary Database
- Opening of Bank Accounts
- Aadhaar Enrolment
- Seeding of Aadhaar in Beneficiary Database and Bank Accounts
- Last mile Connectivity/ Service Delivery

The success of the DBT initiative depends on the above factors to achieve smooth rollout of the program.

JAM Trinity

DBT by leveraging the JAM (Jan Dhan Bank account, Aadhaar and Mobile phone) Trinity coupled with technological prowess enables this system to transfer benefits in a leakage proof, well targeted, cashless and timely manner.

Business Correspondents (BC) Infrastructure

Reserve Bank of India has introduced Business Correspondents/ Banking Correspondents (BC) as an alternative infrastructure to offer services such as cash transactions for villages lacking bank branches. Business Correspondents/ Bank Mitras which have a vital role in operationalizing the program and ensuring the last mile connectivity as this will ensure that payments are disbursed to the beneficiaries on time at their doorstep and of full value.

Payment Banks

A payments bank is like any other bank but operating on a smaller scale and can carry out most banking operations and enable transfers and remittances through a mobile phone but cannot advance loans or issue credit cards. The main objective of payments bank is to widen the spread of payment and financial services to small businesses, low income households, migrant labour workforce etc. in secured technology driven environment across the country. On 19 August 2015, the Reserve Bank of India has given in-principle licenses to eleven entities to launch payments banks. With Payments banks, RBI seeks to increase the penetration level

of financial services in the remote areas of the country.

Mobile Money

Mobile money is a fast moving way of payment and is very helpful in providing solution to last mile issue for better accessibility of DBT. There is a need to develop a comprehensive eco-system for carrying out cashless transactions over mobile platform using Aadhaar as identifiers. This revolutionizes the drive for financial inclusion.

With the outbreak of the COVID-19 pandemic and the imposition of lockdown and social distancing norms, DBT has emerged as a boon in providing relief to millions of citizens whose livelihood has been impacted. As the crisis looms large, and the frequent lockdowns imposed by the Government, the Public Financial Management System (PFMS) team took up the challenge during this adversity of facilitating smooth functioning of the financial machinery. The Government of India - PFMS recorded the highest number of transactions of ₹ 2.19 crore in a single day on 3 March, 2020 largely driven by DBT payments.

Aadhaar based Direct Benefit Transfer/Aadhaar Payment Bridge System (APBS)

Aadhaar Payment Bridge (APB) System, one of the unique payment systems, implementation NPCI, uses Aadhaar Number as a central key for electronically channelizing the Government benefits and subsidies in the Aadhaar Enabled Bank Accounts (AEBA) of the intended beneficiaries. NPCI creates an Aadhaar mapper in order to facilitate the transfer of funds. Aadhaar mapper is the backbone of

Aadhaar Payments Bridge (APB) where information pertaining to the banks seeded with the Aadhaar number is maintained in the mapper based on which, NPCI routes payments to the destination Bank and credit is accorded to the DBT beneficiaries.

Based on APBS and the property of 'uniqueness' of Aadhaar, Direct Benefit Transfer is the largest and most impactful of all the applications launched so far. As on date, crore of transactions have been carried out covering various major schemes such as PAHAL, MGNREGA and Pensions etc. This is a significant governance reform to ensure greater transparency and accountability in public service delivery through effective use of technology. Aadhaar as an identity proof ensures correct identification of intended beneficiaries and eliminates fake/ghost beneficiaries through de-duplication of beneficiary database. The process of de-duplication which seeks deletion of non-existent beneficiaries from the database will lead to tangible savings to the Government and other stakeholders.

DBT Project in Goa

The Directorate of Planning, Statistics and Evaluation (DPSE) is the Nodal Department for monitoring the implementation of the DBT Project in Goa. Even before the Centre had conceived the DBT initiative, the State of Goa had initiated DBT way back in 2002 for payment of salaries of Government employees. Goa is the foremost State in implementing DBT since the year 2012 and all cash benefits under beneficiary oriented schemes implemented by the Government are disbursed through the ECS mode directly into the bank accounts of the beneficiaries.

As on January 2022, the State has identified 16 departments implementing 151 DBT schemes (58 Central schemes and 93 State schemes). All these schemes are on-board the Goa DBT Portal. Efforts are on to identify all DBT schemes implemented in Goa so as to board all these schemes on the portal in order to bring in total transparency.

Aadhaar Payment Bridge System and Savings accrued on account of DBT

The flagship scheme of the State Government viz. Griha Aadaar scheme implemented by the Directorate of Women and Child Development is the only DBT scheme under which financial assistance of ₹ 1500/- per month is disbursed to housewives/beneficiaries through the Aadhaar bridge payment system (ABPS).

During the years 2020-21, out of 11.66 lakh beneficiaries, 5.12 lakh beneficiaries were paid through ABPS. Savings of ₹ 24.21 lakh were accrued towards recoveries on account of various reasons such as ineligible, expired, double benefit, missing, shifted out of Goa, duplications of beneficiaries etc.

Similarly, during the year 2021-22, upto November 2021, out of 5.63 lakh beneficiaries, 2.11 lakh beneficiaries were paid through ABPS. Savings of ₹ 21.76 lakh were accrued.

Under the 2nd flagship scheme of the State Government viz. Dayanand Social security scheme implemented by Directorate of Social Welfare, the State provides ₹ 2000/- per month to the senior citizens/persons with disabilities/single women/HIV and orphans and ₹ 2500/- is provided to children with 90% and above disabilities.

During the financial year 2020-21 and 2021-22 upto 31st December 2021, out of the sanctioned 1.38 lakh beneficiaries, cash benefits were not disbursed to 2,302 beneficiaries due to recoveries on account of various reasons such as ineligible, expired, double benefit, missing, shifted out of Goa, duplications etc. and savings to the tune of ₹ 44.46 lakh were accrued.

The total savings generated on account of 2 schemes were ₹ 90.43 lakh for the year 2020-21 and 2021-22.

CHAPTER 16

SOCIAL SECTOR

HEALTH

Health is an important indicator for the social development of the State and Government has great role in raising the quality, accountability and delivery the services fairly, effectively and courteously to the citizens.

The Government has rolled out Deen Dayal Swasthya Seva Yojana Scheme (DDSSY) in which Universal health cover is provided through insurance for the entire resident population of Goa. Health insurance is an innovative way of overcoming financial handicaps, improving access to quality medical care and provides financial protection against high medical expenses to the people of Goa.

Under Medical Scheme, financial assistance to the maximum extent of ₹ 1.50 lakh per illness is provided for availing super specialties which is not available under the State Government hospital to resident of Goa.

Table No. 16.1
No. of schemes and beneficiaries
as on February 2022

Schemes	Benefits availed	Expend. (₹ in lakh)
Deen Dayal Swasthya Seva Yojana	8871	4499.18
Goa Mediclaim Scheme	74	93.09

State Family Welfare Bureau

Screening of antenatal cases by doctors at all the Health Centres/Hospitals, wherein all the cases are screened for HIV, Syphilis, Hb & Urine tests as well as Ultra Sonography. The Labour Room of

North Goa District Hospital & Maternity Operation Theatre of Sub-District

Hospital, Ponda have awarded National certification under LaQshya.

Various activities are carried out under State Family Welfare Bureau are given in the below table.

Table No.16.2
Beneficiaries under State Family Welfare Bureau from April to Jan. 2022

Particulars	Beneficiaries
Institutional Deliveries	12237 deliveries
Pradhan Mantri Surakshit Matritva Abhiyan	2155 beneficiaries
Janani Shishu Suraksha Karyakram	19529 beneficiaries
Family Planning	1204 sterilisations
Janani Suraksha Yojana	62 beneficiaries

Child Health

From April to January 2022, 12297 babies were screened for inborn errors of metabolism and congenital defects. Out of which 50 are confirmed positive and managed. Infant Mortality Rate for Goa is 5.6 per 1000 live births (NFHS 5, 2019-20).

Every year, bi-annual rounds of National De-worming Day are conducted. The 1st round for the financial year 2021-22 was conducted on 12th October 2021 wherein, 3,49,433 (92.88%) children were de-wormed with a single dose of Albendazole tablet.

At North District Hospital, Mapusa and Hospicio Hospital, Margao District Early Intervention Centre (DEIC), where children identified with 4 Ds are

managed by team of Pediatricians, Psychologists, Dentists, Optometrists, Physiotherapists & social worker.

7473 children in the age group 0-18 years reached both the DEICs for the year 2021-22 (April 2021 to January 2022) who were confirmed with 4 Ds and of these 7473 received secondary or tertiary care and no children were referred out to higher centres for further management.

Village Health Nutrition & Sanitation day are held in all Anganwadis once a month. Health, sanitation and nutritional advice and various health talks related to maternal & child health are delivered to the public including mothers.

National Vector Borne Disease Control Programme

Under this programme various activities are carried out to control Vector Borne Disease.

Table No. 16.3

National Vector Borne Disease Control Programme from April to Jan. 2022

Disease	No. of persons affected
Malaria	1,59,530
Dengue	618
Chikungunya	11

Activities under National Programme for Prevention and Control of Cancer, Cardiovascular Disease and Stroke

- Activities Opportunistic Screening, IEC activities, diagnosis and treatment are done at PHCs and CHCs level.
- Opportunistic screening at all levels in the Health care delivery system from sub-centre and above for early detection of diabetes, hypertension and common cancers.
- Population Based Survey by house to house activity to identify patients suspected of Diabetes, Hypertension, Anemia, etc.

Table No. 16.4
Number of patients who received treatment (April to Jan 2022)

Indicator	Male	Female	Total
Persons attended NCD clinics (New & Follow Up)	1326 76	145068	27774 4
No. of newly diagnosed with			
Diabetes Only	3036	2828	5864
Hypertension Only	3175	2936	6111
HTN & DM (Both)	3352	3277	6629
CVD's	860	803	1663
Stroke	766	727	1493
COPD	744	687	1431
CKD	478	426	904
Breast Cancer	0	7	7

ST-Elevation Myocardial Infarction (STEMI) -Goa

STEMI Goa Project was launched on 15th December 2018 with Goa Medical College & Hospital, Bambolim being the PCI capable Hub & 12 selected peripheral institutions being the spokes. These are CHC Pernem, Sanquelim, Valpoi, Curchrem Canacona and Asilo Hospital, Mapusa, PHC Dharbandora, Aldona Sub-District Hospital, Ponda, Chicalim, Hospicio Hospital Margao, UHC Panaji. This project is done to get diagnosed using Tele-ECG and thrombolized for ST Elevation Myocardial Infarction with newer thrombolytics such as Reteplase and Tenecteplase. The patient once stabilized and thrombolysed is transferred to the apex (tertiary) institution, Goa Medical College & Hospital using either specialized Cardiac/ALS equipped ambulances. Doctors from these centres have received BLS, ALS and hands on trainings in management of Cardiac Emergencies. Till 31st December 2021, 2254 patients have been diagnosed and 1681 patients thrombolized. 5 new spokes namely CHC Bicholim, PHCs Balli, Betki, Candolim and Sanguem are operationalized and 3 more will be

made functional, mainly PHCs Shiroda, Siolim & Cansaulim.

Non-Communicable Diseases (NCD) Camps

These programmes are conducted monthly under each Health Facility. Free drugs and diagnostics are provided in NCD Camps. Focus of action is on health promotion, early diagnosis, prompt initiation of treatment as well as screening for complications and referrals to PHC/ District Hospital Goa Medical College, and Goa Dental College as the case may be.

Screening for Breast Cancers using iBreast Device

Government of Goa is launching 12 iBreast devices to screen for breast cancer. iBreast Exam device is a hand held, mobile connected, radiation free device operable by nurses and community health workers for early detection of breast lumps at the point of care. Screening of women will be done in the OPD, outreach and during the camps. Two machines have been already installed at SDH Chicalim.

More 20 machines are procured. Training of Medical Officers, Staff nurses and ANMs on use of iBreast Device has been already conducted. 523 camps were held till December 2021 & 1180 patient were screened.

Changing Diabetes Barometer

ACT (Awareness and Advocacy, Capacity Building & Treatment) to changing diabetes in Goa is a unique initiative for the common cause of "Diabetes Management". The Medical Officers have been trained for Diabetes Management (LEAD Training).

15 CDCs have been launched at various Government Health Facilities across Goa, manned by specially trained Diabetes Educators. Till December 2021, 1,06,222 patients with diabetes were counseled.

India Hypertension Control Initiative

The Programme was launched on 7th April 2021 in collaboration with Indian Council of Medical Research (ICMR), WHO, Resolve to Save Lives, MOHFW & DHS Goa. Opportunistic screening of Hypertension at all Health Facilities for population more than 18 years old is done. 21,085 patients are registered in the simple app till January 2022.

Health & Wellness Centres (HWC)

As per the directives from Ministry of Health & Family Welfare, all the 24 PHCs, 30 RMDs, 4 UHCs, 1 RHTC, 1 UHTC and 42 Sub Centres have been converted to Health & Wellness Centres. There are 102 Operational Health & Wellness Centres in the State of Goa. For the financial year 2021-22, approved 60 HWC, 60 sub centres have been operationalised as HWCs.

Enforcement of COTPA Act 2003 in GOA

Enforcement squads constituted for each District for implementation of COTPA Act 2003 including imposing penalties. Each squad comprises of Jt. Mamlatdar & Executive Magistrate, PSI, Sanitary Inspector and NGO Member. (VHAG, NOTE, GOACAN)

Table No. 16.5

No. of cases and fines Collected (in ₹) under COTPA Act from April to Jan. 2022

North		South Goa	
Cases	Fines Collected	Cases	Fines Collected
3421	682400	6558	656500

Table No. 16.6

Services provided to Elderly as on Jan. 2022

Care Services provided	Total
No. of Elderly persons attended OPD	107357
No. of Cases admitted inwards	4511
Number of Persons given rehabilitation services	2544
Number of Lab. tests performed on elderly	74892

Pradhan Mantri National Dialysis Programme

Under the Pradhan Mantri National Dialysis Programme, hemodialysis services are provided under Public Private Partnership (PPP) mode.

Table No. 16.7
Dialysis services provided under PMNDP
from April to Jan 2022

State	No. of operationa l machines	Patients availed services	No. of dialysis session
North Goa	55	3764	24952
South Goa	64	2426	21650
Goa	119	6190	46602

Atmanirbhar Bharat, Swayampurna Goa

It aims at reviving the rural economy, making each Village Panchayat self reliant through certain sector specific actionable points, covering various Departments. In first phase, programme covers 41 local bodies across the State, with 25 colleges under the Directorate of Higher Education. The activities carried out are Geriatric services – Health camps, Day Care Centres, Organize counseling sessions for youth, women and senior citizens, Counseling Centre, Health camps for women and senior citizens, Streamline procedures for better citizen oriented governance under the programme.

National Programme for Control of Blindness & Visual Impairment

National Programme for Control of Blindness was launched in the year 1976 as a 100% Centrally Sponsored scheme with the goal to reduce the prevalence of blindness from 1.4% to 0.3%.

Free Cataract detection and free cataract operations including free Intraocular lenses implants are conducted regularly at Goa Medical

college, Bambolim, North Goa District Hospital, Mapusa, South Goa District Hospital, Margao and Sub District Hospital, Ponda, IOL/drugs/consumables and spectacles are provided free of cost to patients.

Table No. 16.8
OPD attendance, cataract operations
Performed as on Feb. 2022

Number of patients examined	Cataract operations performed	
	Target	Achievement
72109	12000	13245

Under the School Health Programme detection and correction of Refractive error for Primary and Secondary school students is carried out by Specialist and trained technicians and free spectacles are provided.

Table No. 16.9
School eye screening and distribution of free spectacles as on Feb. 2022

Schools visited	Children screened	Detected with refractive errors	Provided free glasses children	
			Target	Achievement
13	1130	93	1000	78

Under NPCB 84 free spectacles were distributed to senior citizens against the target of 2000 for adults as on February 2022.

Cataract Detection Camps

Camps on annual schedules were held at various PHCs/CHCs. Preference in operations is given to these patients. IOL and drugs are provided free. During the financial year 2021-22 till February 2022, 49 Camps were held, total number of patients examined were 7730, total number of glasses prescribed are 2769, total number of cataract detected are 973.

Checking of all citizens under Vision for all

The Eye Camps under “Vision for All” Programme under ‘Sarkar Tumchya

Dari' initiative were held at village level which involved screening patients for cataract and other eye ailments, conducting surgeries and providing spectacles free of cost. Under vision for all Programm, 11 camps are held and Cataract detected are 524. Under Sarkar Tumchya Dari 3 camps are held and Cataract detected is 373.

National Leprosy Eradication Programme (NLEP)

During the year 2021-22 (till February 2022) 69 new leprosy cases were detected. 80 patients are under MDT (Multi Drug Therapy) Treatment. Reconstructive Surgery is conducted by Goa Medical College, Bambolim.

An incentive of ₹ 8,000/- is given for the beneficiary and ₹ 5,000/- for the institution performing the surgery.

Sexually Transmitted Disease Control Programme Control Programmen (STDCP)

STD programme closely co-ordinate with Goa State AIDS Control Society and execute Sexually Transmitted Disease control measures via the STD Clinic, the CHCs, UHCs, PHCs and the community.

Table No. 16.10
Activities of STD Control Programme as on February 2022

	North Goa	South Goa	Goa
No of STD Clinic under Goa	1	2	3
No of STD cases (excluding GMC)	808	3203	4011
Persons found Positive for RPR testing patient	759	2946	3705
Conducting RPR test on STD Patient	03	04	07
Conducted RPR test on Antenatal Patients	2714	4023	6737
Antenatal Patients found Positive	0	03	03

Covid -19 monitoring

Integrated Disease Surveillance Programme (IDSP) monitors SARS Cov-2 (COVID-19) situation in the state and conducts the surveillance and containment measures through all the peripheral unit. Throat swabs of suspected cases are sent to designated RT-PCR laboratory located in the periphery at North Goa District Hospital Mapusa and South Goa District Hospital Margao, SDH Ponda and SDH Chicalim and at Goa Medical College, Virology lab.

Table No. 16.11
Covid – 19 situations in Goa

Covid -19	2020	2021	2022 (upto Feb 22)
Positive cases	51066	12973	64147
Death cases	739	2783	279

Monitoring of Influenza A H1N1 (Swine Flu)

Integrated Disease Surveillance Program (IDSP) monitors H1N1 Influenza (Swine Flu) situation in the state and conducts the surveillance and containment measures through all the peripheral Units. Throat Swabs Suspected cases of H1N1 are sent to Manipal Centre for Viral Research-Manipal, Karnataka for testing.

AYUSH

Nine AYUSH Health Wellness Centres have been set up in 2020-21 & 2021-22 in the State. Another 21 Sub-centre and 10 AYUSH Dispensaries are approved for AYUSH HWCs. AYUSH Medicines are available free of cost to all patients at all Health Centres and AYUSH Health Wellness Centres. Up-gradation of co-located AYUSH Dispensaries at the PHCs, CHCs, UHCs, SDHs & DHs is under the National AYUSH Mission Scheme.

Goa State AIDS Control Society

The aim of Goa State AIDS Control Society is to reduce New HIV Infection, to provide Care, Support and Treatment to HIV infected persons and to reduce stigma and discrimination towards HIV + persons.

The reported number of AIDS cases and AIDS deaths during the period from 1986 to 2021 was 1862 and 1244 respectively. The number of AIDS cases and AIDS deaths reported to Goa State AIDS Control Society in the year 2021 is 10 and 23 respectively. In Goa, 17,800 HIV cases have been detected at the Integrated Counseling and Testing Centers (ICTCs) till January 2022. Presently around 13,388 PLHIV in Goa and 7537 are registered in Anti Retroviral Therapy Centre (ART) out of which 3112 PLHIV are alive on ART.

Ayushman Bharat -Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)

AB-PMJAY offers a benefit cover of ₹ 5.00 lakh per family per year irrespective of family size, age or gender. PM-JAY has defined 1,650 medical packages in Goa for covering surgery, medical and day care treatments. Benefits of the scheme are portable across the country i.e. a beneficiary can visit any empanelled public or private hospital for cashless treatment. A total of 36,974 families are eligible for AB-PMJAY in the state.

Table No. 16.12
Achievement under AB-PMJAY

	Total achievement	Achievement during 2021-22 (upto feb.22)
Golden Card generation	8542 families (22,091 individuals)	112 Families (239 individuals)
Hospital Empanelment	36 Hospitals (22 Public, 14 Private)	8 Hospitals (7 Public, 1 Private)
Preauths raised	356 preauths raised	155 preauths raised

Institute of Nursing Education

The Institute provides opportunities for students to pursue diploma, graduate and post graduate nursing studies through the programs. 674 students have successfully completed B.Sc. nursing program till date. Total 95 students of Batch XIII enrolled in fourth year B.Sc. Nursing in the year 2020-21 have appeared for the B.Sc. Nursing examination during the financial year 2021-22.

M.Sc. Nursing Program, 2-years programme started in October 2014 with enrollment capacity of 20 students per year. A cumulative of 18 students has successfully completed the program till date.

Post Basic Diploma in Neonatal Nursing and Cardio-thoracic Nursing was introduced in January 2019 and 6 students have successfully completed the program till date.

Under Auxiliary Nurse & Midwifery, 317 students have successfully completed the program till date. 44 students enrolled for the program in the year 2021-22.

GOA COLLEGE OF PHARMACY

The College has been ranked 56th by the National Institutional Ranking Framework (NIRF) - 2021 by MHRD, New Delhi. Three Scholars have successfully completed the Ph.D. in Pharmacy as of November, 2021. Sixteen Scholars are pursuing their Ph.D. in Pharmacy. Under the Central Scheme, 35 M. Pharm. students, (GPAT qualified students) have been receiving PG Scholarship of ₹ 12,400/- per month by AICTE.

The College in collaboration with G-CEIP organized the 6th Annual International Conference on 'Intellectual Property Rights' on 1st & 2nd December,

2021, where resource persons from India and abroad deliberated. A total of around 220 delegates attended the Conference. The College has started M.Pharm. in Pharmaceutical Chemistry in Academic year 2021-2022 with an intake capacity of 17 students.

GOA MEDICAL COLLEGE

Major achievements

- Super Speciality Block, Goa Medical College has been commenced and it is a center of excellence in areas like Nephrology, Neurology, Neuro Surgery, Pediatric Surgery, Burns and Plastic Surgery, Cardiology, CVTS, Urology, Endocrinology Etc.
- Deceased Donor Multi Organ Retrieval and Deceased Donor Kidney transplant program at Goa Medical College has been the major achievement during the year.
- The 100% coverage of the first dose of Covid 19 vaccination and 92% of the second dose at Goa Medical College.
- Under the initiative of National Programme for Control of Blindness, 1170 Cataract were successfully under taken.
- Medical College conducted two Cochlear Implant surgeries on 10/07/2021 providing the gift of hearing for deaf and mute children under ADIP Scheme of Government of India and carried out Cochlear implant surgeries on 11 children.
- TEVAR which placement of Aortic graft for dissection or leak in the aorta is a complex procedure was first time introduced in Goa.
- Carotid stenting has been started in Department of Cardiology and four procedures were done during 2021-22.
- Newer diagnostic tests have been introduced like Covid Makers

D-Dimer, LDH and Tumor Marker Ca 19.9.

Activities during Covid-19

- Covid Surgical patients received all necessary care as per the objectives of the SOPs.
- Successfully managed to control and contain the Covid - 19 outbreaks.
- Conducted two Cadaveric Organ Retrieval in Goa Medical College followed by Renal Transplant in December 2020 and March 2021.
- Deceased Donor Kidney transplant program was successfully initiated by Goa Medical College.
- The successful implementation of the Covid-19 vaccination programmes and successfully managed the patients attending the OPD-30 (Flu).
- Organized training programmes on AFP surveillance/ National Immunization / First aid for interns/ Residents / Staff at RHTC Mandur.
- Collaborated and networked with the panchayat and other stakeholders to ensure Covid appropriate behavior and to mobilize the community for Covid-19 vaccination.
- The Department of ENT was actively involved on treating post Covid Mucormycosis cases using latest equipments like Endoscopic Sinus surgery equipments & Microdebrider.

GOA DENTAL COLLEGE

A New Mobile Dental Bus with two dental chairs and units is plying across the state of Goa. Dental specialty clinic started at North Goa District Hospital, Mapusa. During the academic year 2021-22, total 50 students have been given admission for B.D.S. course and 18 students have been given admission for M.D.S. course as against target of 50 seats for BDS and 18 seats for MDS. As per the Revised BDS

Regulations 2011, Interns are posted to Peripheral PHCs to provide dental treatment in rural areas.

INSTITUTE OF PSYCHIATRY & HUMAN BEHAVIOUR

Construction of 100 bedded Hospital in Phase -II of expansion at IPHB complex at Bambolim under Centre of Excellence. The project is financed by the Centre and State Government through (Centre of Excellence, Manpower Development Scheme under NMHP) and is undertaken by GSIDC.

The construction of Day care Centre in IPHB for rehabilitation of mentally ill patients is undertaken. Construction of New Hostel Block in IPHB has been approved by Government and is undertaken by GSIDC for accommodating students for the newly approved courses. 37 Medical Officers from Directorate of Health Services were trained in the field of Psychiatry.

Asymptomatic and mild symptoms Covid Positive mentally ill patients were treated at IPHB. Nine Psychiatric awareness programme were conducted at various PHC/CHC/Health Centres /Schools and colleges in Goa.

Faculties and Resident Doctors participated in six camps "Administration at your Doorstep" organized by Government of Goa.

SCHOOL EDUCATION

The Government has implemented various schemes towards reducing dropout rate, improving quality of education, emphasising the skill development & vocational programmes to curb the employment, computer integrated education, infrastructure development etc.

Table No. 16.13
No. of students covered various schemes 2021-22 (upto Feb 2022)

Schemes	Beneficiaries	Expend. (₹ in lakh)
Mid Day meal	160564 students	3319.29
Note books to students of Std II,III & IV	56500 students	54.89
School buses for Govt. & Govt. aided schools	422 Bal Rath Buses	3.66
Education for children with special needs	237	11.31

- The Sanjay Centre for Special Education has 06 schools under their control. The school imparts training to hearing impaired, mentally retarded, physically handicapped, slow learners and specific learning disabilities with a view to train the children to become independent and self reliant. An expenditure has been incurred ₹ 1056.00 lakh till February 2022 towards maintenance and grants to Sanjay Centre for Special Education.
- There are five Sanskrit institutions in Goa that receive Grant-in-aid. About 1170 students are pursuing Sanskrit Education.
- 15 vocational courses are provided in 39 Aided and 1 Unaided Higher Secondary Schools and approximately 5889 students of std. XI & XII have been benefitted under Vocationalisation of Education at +2 Stage Scheme during this academic years 2021-22.
- 20 Aided High Schools are running the Pre-vocational Scheme. Approximately, 836 students of Std. IX & X have benefitted under Pre-Vocational Scheme during the academic year 2021-22.

- Bal Bhavan is an autonomous body and is financed by the State Government on the parallel lines of National Bal Bhavan, New Delhi. An expenditure ₹ 675.00 lakh has been incurred towards Bal Bhavan during the financial year upto Feb. 2022.
- Under One Time Grants Scheme, the educational institutions who have completed 100 years of establishment of schools are eligible for an amount of ₹ 50 lakh and those educational institutions completing 75 years will be eligible for an amount of ₹ 25 lakh. 18 Aided Educational Institutions who have completed 100 years and 75 years have been benefitted. An amount of ₹ 6.25 crore has been disbursed.
- District Institute of Education and Training conducts a centrally Sponsored Scheme of Restructuring and Reorganization of Teacher Education through IFIC-Wing. DIET is implementing NISHTAH 3.0 FLN, a training programme for all primary teachers from Std 1st to 8th in consultation with NCERT and Ministry of Education New Delhi.
- 52 Government Schools are repaired in the year 2021-22 at the cost ₹ 7.24 crore and 13 Schools have been undertaken by PWD for repairs and renovation.
- 904 students have benefitted and an amount of ₹ 18.08 lakh has been incurred towards the Incentive Scholarship to Meritorious Students schemes.
- 9 students have benefitted and an expenditure of ₹ 8.85 lakh has been incurred for the financial year upto December 2021 towards the Freeship to the Children of Service Personnel scheme.

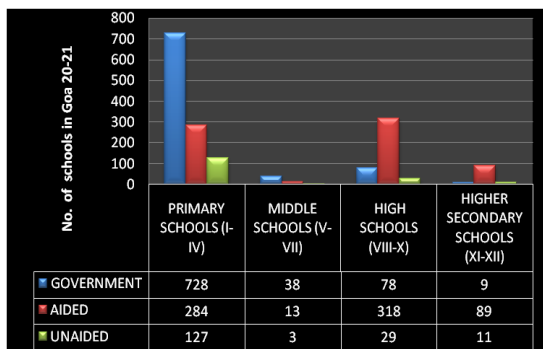
Table No. 16.14
Beneficiaries under various schemes of
Goa Samagra Shiksha as on Feb 2022

Schemes	Benefits availed	Expen. (₹ in lakh)
Free textbooks	140917 students	451.76
Free uniforms to all Girls, SC & ST Boys of classes I to VIII from Govt. Schools	17314 students	103.88
Activities for Safety and security (funds @ 2000/-per school)	734 Govt. Elementary schools	14.68
Library Grants	734 Govt. Elementary schools	39.9
Sports and Physical Education	694 pre - primary & 40 upper primary schools	38.70

State Council of Education Research & Training (SCERT) undertakes the work of teachers training, textbook printing, and research based activities. This Council does not have any avenue to mobilize the resources, but whenever the Central funds are available, SCERT puts efforts to get funds from MHRD, NCERT etc. in order to reduce the burden on state exchequer. After SCERT has been designated as an “Academic Authority”, it extended its functional capabilities in preparation of D.Ed curriculum, reviewing text books, preparing scheme of continuous comprehensive evaluation etc.

From the Graph no. 16.1, the total numbers of schools in Goa are 1727 for the year 2020-21 which includes Government, Aided and Unaided schools. From 1727 schools the total primary schools are 1139 (I-IV), middle schools are 54 (V-VII), high schools are 425 (V-X), and higher secondary schools are 109 (XI-XII).

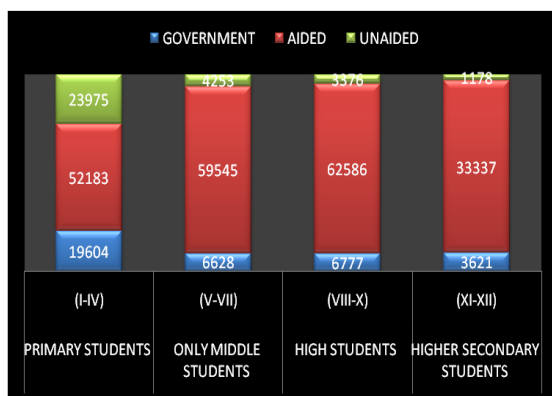
Graph No. 16.1
Number of schools in Goa 2020-21



Source: The Directorate of Education, Porvorim, Goa

From the Graph no. 16.2, the total number of students in Goa are 2,77,063 for the year 2020-21 which includes students from Government, Aided and Unaided schools. From total students the total primary students are 95,762 (I-IV), middle schools are 70,426 (V-VII), high schools are 72,739 (V-X), and higher secondary schools are 38,136 (XI-XII).

Graph No.16.2
Number of students in Goa 2020-21



Source: The Directorate of Education, Porvorim,Goa

Table No. 16.15
Number of teachers in Goa during 2019-20 and 2020-21

Management	2019-20	2020-21
	(I-XII)	(I-XII)
Government	2672	3062
Aided	8185	8284
Unaided	1510	1609
Total	12367	12955

Source: The Directorate of Education, Porvorim,Goa

From the Table no. 16.15, the total number of teacher in Goa are 12,367 for the year 2019-20, which is less compared to the teacher in 2020-21 which is 12,955 from the Government, Aided and Unaided schools.

HIGHER EDUCATION

Various initiatives has been taken up towards achieving Educational Excellence through Holistic and Conducive Knowledge Ecology.

- Digital Integrated System of Holistic Teaching and Virtual Orientations (DISHTAVO) is an initiative of the Directorate of Higher Education that provides e-content based on the prescribed syllabus for all the courses of the degree colleges in the stream of Arts, Science, Commerce, Law, Education, Agriculture, Music and Theatre for the students and general public to access videos.
- Training for MS 365 platform provides the MS 365 platform free of cost to the seven Government colleges that included 500 faculty and 7000 student licenses. These were provided free of cost through the Roshini Social Schooling Program implemented by Tech Avanta Garde and through the initiative of the Confederation of Indian Industry (CII) Young Indians, Goa Chapter.

- Integrated Academic Information Management System (IAIMS), the Directorate initiated the project to streamline all the academic activities of all affiliated colleges has been initiated by providing a centralized, electronic platform “Integrated Academic Information Management System (IAIMS)” to integrate all the colleges academic activities and process in one complete framework,

enabling the colleges to work as a single unit.

- Establishment of Teaching, Learning & Education Technology Centres in all Govt. Colleges to promote the use of the latest teaching pedagogies using advanced tools and technology, DHE has established Teaching, Learning & Education Technology Cells in all Government colleges.
- Massive Open Online Courses (MOOCs) create world-class learning resources in higher education, the Directorate, intends to design, develop and host Massive Open Online Courses (MOOCs), following the worldwide MOOCs standards.
- Organized Kaushalya Week a skill development vacation camp for school children from 8-13th November 2021 to provide essential skills including Computational Thinking, Coding, and Communication skills to children from ages 8-14 years. Youth Employment Programme (YEP) program helps college students across Goa to improve employability and Communication Skills. This program is designed for preparing youths especially from the weaker sections of society for employment by filling the required skill gaps.
- Placement by TCS and Infosys for BSc and BCA students, nearly 600+ eligible students were contacted for each placement drive to allow them to register for the hiring process
- Taken initiative of engaging the services of Institutes for Imparting Comprehensive Coaching to the Students aspiring for IIT, JEE, NEET and various Competitive Examination the Directorate of Higher Education has awarded 20 outstanding College and Goa University Teachers with

the Best Teachers award at a State level ceremony for the academic years 2018-19, 2019-20, 2020-21 and 2021-22. The awardees were honored with a cash prize of ₹ 1.00 lakh and a citation

- Astronomical observatory established at Government College, Pernem to promote experiential learning and stimulating interest of students in disciplines like space exploration, an astronomical observatory with fully automated telescope has been set up.
- Development of Botanical garden in Government College, Pernem in collaboration with the Biodiversity Board.
- Manohar Parrikar Goa Scholar Scheme for 30 students each were selected as Goa Scholars for the academic year 2019-20 and 2020-21 respectively.
- Interest free education loan is provided to undertake approved degree and diploma courses at undergraduate and post graduate levels, in India or abroad. 1179 students were benefited out of the Scheme with an aggregate sanction of ₹ 1231.00 lakh for the financial year 2021-22.

TECHNICAL EDUCATION

Upgradation of infrastructure and modernisation of laboratories are undertaken at all Technical Institutions in the State, immensely benefiting the students pursuing technical courses in these Institutions. Over 2900 Goa Common Entrance Test applicants were tested, results processed and declared within four working days. Over 2000 seats in the professional Degree courses and 1200 seats in the Diploma courses are being filled.

Diamond Jubilee - Government Investment for Technical Education Scheme (DJ-GIFT) has been launched in July 2021 to encourage, motivate and incentivise students to join technical Degree and Diploma Courses, thereby enhancing their employability, and contribution to socio economic growth & development of the State.

Under the Coding and Robotics Education in Schools Scheme, thousands of school students across the State are imparted coding skills, thereby enhancing their computational thinking abilities, creativity & innovativeness.

GOVERNMENT POLYTECHNIC, MAYEM

Under existing polytechnics scheme, the Ministry of Skill Development, New Delhi has released an amount of ₹ 150 lakh during the year 2010-11 & 2014-15 out of which ₹ 90.60 lakh was spent upto 30th November 2021 and a balance amount of ₹ 59.40 lakh will be spent for procurement of Laboratory material.

Under Community Development various training programmes, for school drop outs, unemployed youths & women for the period varying from three to six months duration under manpower development i.e. technical training non-technical programmes

Table No. 16.16
Students admitted and passedout during the year June/July, 2021

Name of the Branch	Students Admitted	Students Passout
Mechanical Engg.	36	66
Electrical Engg.	43	46
Civil Engg.	24	69
Eelct. & Comm. Engg.	13	54
Total	116	235

GOVERNMENT POLYTECHNIC, ALTINHO

The Polytechnic presently has 10 branches of Diploma Courses with the total intake of 287 students for the year 2021-22. Under the persons with Disabilities scheme, (minimum 40%) viz. Visual Impairment, Orthopedic Impairment, Hearing Impairment, and having mental retardation are admitted for the formal three-year diploma engineering Programme and Non-formal short term training programme ranging from 3-6 months.

Short term training programs are conducted in Desktop Publishing (DTP), Office Assistant, Computer Graphics and Screen Printing, Beautician, Fashion Designing, Tailoring, Repair of Electrical and Electronics household appliances, Baby Garments Making, Pot Decoration, Party Decoration, Computer Hardware, Automobile Repairs etc. as per need and capability of the students and availability of suitable resource persons. 292 students have been benefited under Skill Development Training Programme 2021-22.

GOVERNMENT POLYTECHNIC, CURCHOREM

The students in the final year are motivated to take up the mini projects and projects related to renewable energy and agriculture.

Table No.16.17
Placements for students, April 2021

Name of Programme	Students passed	Student placed	Higher education
Mechanical Engg.	45	15	16
Computer Engg.	44	0	17
Elect. & Elect.Engg.	45	15	08

GOA COLLEGE OF ARCHITECTURE

Completion of new computer Lab-II on the ground floor with a capacity of 25 additional computers. Installation of fire fighting system, has been carried out successfully. Two Master of Architecture Programmes, i.e., M. Arch in Urban Design and M. Arch in Sustainable Habitat were started in the Academic year 2020-21.

GOA COLLEGE OF ENGINEERING

This College has signed three MoUs. MoU with the Indian Plumbing Association, New Delhi was signed on 09-07-2021 for setting up a “Centre of international plumbing Advancements and Practices” at Goa college of Engineering Campus. The Laboratory is under PPP model and investment by IPA with the estimate cost of ₹ 1.00 crore. GEC has agreed to spare land for set up of the said unit.

MoU with the National Highways Authority of India (NHAI) was signed in November, 2021 towards working together with mutual cooperation for dissemination of respective expertise in Civil/Highway Engineering field through the road infrastructure development. NHAI shall facilitate the faculty, researchers and students of the Institute to familiarize with the latest trends in the highway/ transportation sector with a common objective of sharing the knowledge in their respective domain.

MoU with the Water Resource Department was signed on 21st October, 2021 for preparation of State Specific Action Plan (SSAP) for Water sector aligned with the State Action Plan on Climate change formulated by the State under NAPCC.

ART AND CULTURE

The Directorate endeavours to preserve, promote and perpetuate the traditional cultural forms and practices

as well as artistic manifestations including folklore, literature, indigenous crafts and allied cultural expressions of the Goan Society.

Table No. 16.18
The performance under various Schemes as on February 2022

Names of Schemes & objectives	Beneficiaries	Expend (₹ in lakh)
Kala Samman Scheme released to the age old artists who are in indigent circumstances	2157 artists	546.57
Special grants for various programmes	315 cultural institutions	457.97
Annual Maintenance Grants for conduct of cultural activities	18 Cultural institutions	8.31
Scheme for Establishment of Music Centres in Schools	17 schools	1.98
Assistance to students for education outside Goa in any field of Art & Culture	23 students	9.52
Scheme to provide Musical Instruments	59 Groups/ Institutions	8.85

Awards

- The Yuva Srujan Puraskar (Navsarjan Chetana Puraskar) was presented to 9 young achievers from the field of Art & Culture.
- The Goa State Cultural Award was presented to 13 eminent personalities from the field of Art & Culture and 1 State Cultural Award for Best Cultural Institution.
- The Kala Gaurav Puraskar was presented to 59 eminent personalities from the field of Art & Culture.

- The Best Library and Best Librarian Award function will be held by end of financial year 2021-22.

Other Cultural Programmes/Activities

- Organized “Black Art” Exhibition of African-American Artists in collaboration with Goan artists from 30th March to 8th April 2021, at Art Gallery, Sanskruti Bhavan, Patto, Panaji-Goa. 57 art works of Goan, American and African artists were displayed during exhibition.
- Organized ‘Patriotic Musical Programme’ in joint collaboration with West Zone Cultural Centre, Udaipur by Goan artist under ‘Azadika Amrut Mahotsav’ and 60 years of Goa Liberation on 18th June 2021 at Multipurpose Hall, Sanskruti Bhavan, Patto, Panaji - Goa.
- A Book Exhibition and Photo Exhibition on Goa’s Freedom Struggle were inaugurated on 18/06/2021 at Central Library at the hands of Hon. Minister for Art and Culture.
- Conducted ‘Archival Recording’ of Smt. Laxmi Harvalkar on 19th & 20th August 2021 at Multipurpose Hall, Sanskruti Bhavan Patto, Panaji-Goa
- Organized cultural programme to celebrate ‘Guru Purnima’ on 17th August 2021 at Multipurpose Hall, Sanskruti Bhavan, Patto Panaji-Goa.
- Under Atmanirbhar Bharat Swayampurna Goa, was conducted “Traditional paper craft workshop” at Rivona, Sanguem – Goa from 1st to 6th September 2021. Organized workshops in Panchayats i.e. (i) “Coconut Shell Craft Workshop” from 19th to 23rd October 2021 at Village Panchayat Caurem, Pirla, Quepem-Goa. (ii) “Beautician Workshop” from 19th to 23rd October 2021 at Village Panchayat Virnoda, Pernem-Goa. (iii) “Ghumat Aarti Workshop” from 23rd to 27th October 2021 at Village Panchayat Virnoda, Pernem– Goa and also Organized (i) Chitrakan-Contemporary Painters Camp at Chitrakala Studio of the Department from 20th to 25th September 2021. (ii) Art & Calligraphy workshop at Conference Hall of this Department from 20th to 22nd September 2021. (iii) Shaurya Art Exhibition at Art Gallery of the Department from 20th to 25th September 2021.
- Under the Atmanirbhar Bharat Swayampurna Goa, the Department conducted workshops from 26th to 30th October 2021 in different village Panchayats i.e. “Handmade Soap Workshop” at Village Panchayat Querim, Ponda-Goa. (ii) “Traditional Rangoli Workshop” at Village Panchayat Socorro, Porvorim, Bardez- Goa. (iii) “Mat Making Workshop” at Village Panchayat Shristhal, Canacona-Goa. (iv) “Traditional Folk Dance Workshop” at Village Panchayat Gaondongri, Canacona- Goa. Organized “Broom making workshop” at Vaizewada, Shristhal, Canacona from 22nd to 26th November 2021 for Village Panchayat Shristhal, Canacona – Goa. Also conducted workshop on Vegetable Carving in the Village Panchayat Cumbharjua, Goa from 07th to 11th December 2021
- Organized seminar on symposium on “Life and works of Fr. Thomas Stephens”, and on life and work of Late Sudesh Lotlikar well known Poet on 22nd and 23rd November 2021 in collaboration with Sahitya Akademi, Mumbai at Multipurpose Hall, Sanskruti Bhavan, Patto, Panaji.
- The Department in joint collaboration with West Zone Cultural Centre, Udaipur organized “Natyotsav 2021”

Multilingual Theatre festival at Ravindra Bhavan, Margao from 4th to 8th December 2021.

- The Department deputed one Goan Folk Group for Akhil Bhartiya Vidyarthi Parishad Programme on 04th December 2021 at Porvorim.
- Organized Selection Trial of Goan Folk Groups from 13th to 16th December 2021 at Rajiv Kala Mandir Ponda Goa.
- Digital National Tribal Dance Festival was organized on 17th & 18th December 2021 in collaboration with Ministry of Tribal Affairs, New Delhi at Rajiv Kala Mandir Ponda Goa.
- Regional Centre of Indira Gandhi Regional office was established at Ravindra Bhavan, Sankhali for organizing various programmes of music & drama.
- Process of establishment of Ravindra Bhavan at Canacona is under progress.
- Land has been earmarked for Ravindra Bhavan at Dhargal, Pernem. Land has been transferred by Water Resources department for establishment of Ravindra Bhavan at Sanguem
- The Swami Vivekanand Kendra was established at Ravindra Bhavan, Margao to inculcate Nationalistic values and to develop physically and mentally fit youth for the State.

DEVELOPMENT OF PUBLIC LIBRARIES

The Government regularly releases grants to various Voluntary Organisation/ Panchayat Libraries/ village libraries for their maintenance and to create reading culture among the youth and to develop library movement in rural areas. 90 Village Panchayat/ NGO Libraries were released grants of

₹ 201.64 lakh during 2021-22 till February 2022.

- Steps are being initiated to computerize all Government Libraries in the State & connect them through network so that the reader can access thorough it and get the required information at finger tips.
- Infrastructure is being created with well-equipped modern facilities in the Libraries to promote reading culture in the state.
- The financial scheme of Raja Rammohun Roy library foundation is made available to the Publishers and Authors of Goa.
- Town Library has been inaugurated at Sankhali on 03rd July 2021 for the benefit of local citizens and students.
- Six New NGO's libraries have been opened at different places in the State.

DIRECTORATE OF WOMEN AND CHILD DEVELOPMENT

The Directorate has various schemes for the welfare and uplift of women and children. The State & Central Acts are being implemented to safeguard women & children in the society.

Due to Covid-19 pandemic, Directorate has distributed supplementary nutrition in the form of Take Home Ration instead of Hot Cooked Meal to children in the age group of 03 to 06 years as well.



Table No. 16.19
The performance of various Schemes
as on February 2022

(₹ in lakh)

Schemes	Beneficiaries	Expen.
Pradhan Mantri Matru Vandana Yojana	3335 beneficiaries	60.21
Mamta Scheme	1425 beneficiaries	142.50
Supplementary Nutrition Programme	72852 (average) beneficiaries	2464.64
Internship Scheme for Student of Counselling/ Psychology/Social Work/Home science	13 students	14.48
Griha Aadhar Scheme	121086 beneficiaries	22737.65
Financial Assistance to the Mahila Mandals (Swalambhan)	918 Mahila Mandals/ Self Help Group	265.70
Ladli Laxmi Scheme	5000 beneficiaries	5000.00
Retirement Benefit Scheme for Anganwadi Workers/Helpers	16 Anganwadi workers & 07 Anganwadi helpers	58.50

- Child Protection Services is aimed at building a protective environment for children in difficult circumstances, as well as other vulnerable children, through Government-Civil Society Partnership. There are 56 registered Institutions in the State of Goa and 810 children are availing services and taken care of.
- Foster Care Scheme-Vatsalya scheme provides non institutional care for children in need of care and protection. During the year 2021-22, 07 children have been placed in foster care, however, the foster families have not claimed any allowances under the scheme.
- Poshan Abhiyaan, the Government of India's flagship programme aimed to improve nutritional outcomes of children, adolescent girls, pregnant women and lactating mothers is being implemented through use of real-time monitoring at grass-root

level on smart phones. For creating awareness among the public related to health and nutrition, 14395 Community Based Events (CBE) were conducted in the financial year 2021-22. 'Poshan Maah' was celebrated in September 2021, wherein, 9429 awareness activities were carried out at Anganwadi Centres with a focus on identification and tracking of children with Severe Acute Malnutrition (SAM) and plantation drive for promotion of kitchen garden. 1126 children with SAM have been identified and 207 kitchen gardens have been setup at Anganwadi Centres.

- Aadhaar related services through its WCD Block Offices are being provided. Till January 2022, 8521 new enrolments and 19400 biometric/ demographic updations have been done. Under 'Sarkar Tumchya Daari' program, Aadhaar enrolment camps were organised at various places.
- One Stop Centre (OSC) have been setup at Forensic Department, Goa Medical College-Bambolim and Junta Quarters, Pajifond-Margao, wherein, assistance including medical, legal, psychological & counseling was provided to 656 women affected by violence upto February 2022.
- Universal Women Helpline-181 setup at Goa Medical College-Bambolim is providing 24 hours emergency response to women affected by violence. During financial year 2021-22, 226 cases were attended upto Feb 2022.
- Under Shelter Home for Women Scheme temporary shelter and rehabilitation is provided to those women who have no social support system due to family problems, mental strains, social ostracism etc. Grants amounting to ₹ 21.06. Lakh is

sanctioned to Gomantak Lok Seva Trust, Anjuna and Street Providence Trust, Sangolda upto February 2022. 39 beneficiaries are there in these shelter homes.

- One packet of 16 napkins on monthly basis is provided to 60,000 beneficiaries belonging to ST, SC and economically weaker section through self help group w.e.f. October 2021.

SOCIAL WELFARE

The various welfare programmes and services to the Persons with Disabilities, Scheduled Castes, Other Backward Classes, Minorities & social security for the aged and destitute are provided and awareness amongst general public regarding the welfare measures/ schemes are created.

Table No. 16.20
The performance under various Schemes as on February 2022

Names of Schemes	Benefits availed	Expend (₹ in lakh)
New Schemes		
Covid-19 Relief to Marginalized/Unorganized Sector	53 Beneficiaries	2.65
Ex-Gratia Financial Assistance to the family of the victim of Covid-19	251 Beneficiaries	502.00
Dayanand Social Security Scheme (Freedom from Hunger) DSSS	134668	27509.69
Education Programme OBC/SC		
Post Matric Scholarships to OBC students	146 OBC Students	33.63
Post Matric Scholarships to SC students	179 SC Students	28.20
Pre Matric Scholarships to OBC Students	1066 OBC students	37.22
Grants to voluntary organizations for running hostels	2 Hostels	1.85

for SC students		
Extension of ST Schemes to SC's		
Merit Based Award and recognition of high performance in the Board Exams of SSC and HSSC for SC Students	12	0.97
Atal Asra Yojana to SC Community	5	3.75
Gagan Bharari Shiksha Yojana	18 students	1.35
Antya Sanskar Sahay Yojana	2 Beneficiaries	0.40
Welfare of Dhangar Community		
Antya Sanskar Sahay Yojana	5 Beneficiaries	1.00
Welfare of Persons with Disabilities (PwD)		
Welfare of Handicapped	184 students	4.04
Awards for marriage with Disabled Persons	5 Couples	2.50
Scheme to manage special homes for person with physical & mental disabilities	1 NGO	0.99
Schemes for the welfare of senior citizens		
Ummid - Day care centre & medical assistance to Senior Citizens	1 Centre	0.75
Various Welfare Scheme for Senior Citizens		0.17
SAHAYATA	1 NGO	0.25
Welfare Of Backward Classes		
Housing Scheme to OBC	32 Beneficiaries	25.25
Other Various Welfare Schemes		
Awards for Best Social Worker	10 Social Workers	3
Financial assistance to Self Help Groups	1 SHG	0.25
Detention Centre		21.86
Protection of Civil Rights (PCR Act)		6.14
Strengthening of the Department under Social Welfare Wing		400.20
Direction & Administration Directorate of Social Welfare		131.76

Achievements

- Hon'ble Union Minister of Social Justice & Empowerment, inaugurated the distribution camp of Aids & Appliances for person with Disabilities under the Assistance to Disabled Persons scheme of Department of Empowerment of Persons with Disabilities. 2175 identified eligible beneficiaries were given aids & appliances of ₹ 1.72 crore sponsored by the Central Government.
- The State Scholarship Portal is started accepting application through online mode for the following schemes, post matric scholarship for SC/OBC Students, pre matric scholarship SC/OBC Students and Dr. Ambedkar post matric scholarship for economically backward classes.
- Under Atmanirbhar Bharat/ Swayampurna Goa & Sarkartumcha Dari various awareness camps were held at different places & around 2323 application were registered on Unique Disability Identity Card (UDID) portal out of which 1172 UDID cards are generated.
- Special Camp was organized for person with Disabilities in Village panchayat Kudne, Bicholim Goa under the Atmanirbhar Bharat & Swayaampurna Goa for registration of online UDID card on web portal.
- The Hon'ble Chief Minister of Goa presented sanction order to family member of Covid-19 Victim under the "Scheme to provide Ex-Gratia financial assistance to the family of the Victim of Covid-19".



- Financial Assistant was distributed in the hands of the Hon'ble Chief Minister of Goa as onetime relief to people engaged in the different marginalized/unorganized sectors whose livelihood/sources of income has been interrupted due to Covid-19 pandemic.



- Mukhaymantri Dev Darshan Yatra Yojana in the hands of The Hon'ble Chief Minister of Goa has been launched.



- Special Camp was organized for person with Disabilities in Village panchayat Kudne, Bicholim Goa under the Atmanirbhar Bharat & Swayaampurna Goa for registration of online UDID card on web portal.



TRIBAL WELFARE

The Department looks into the grievances of Scheduled Tribes for better enforcement of their Constitutional Rights and to give impetus to the implementation of various schemes and programmes for the Welfare & Development of Scheduled Tribes in the State.

Table No. 16.21
The performance of various schemes
as on February 2022
 (₹ in lakh)

Names of Schemes	Benefits availed	Exp.
Pre-Matric Scholarships to ST Students (Vth to Xth)	1256 students	46.79
Pre-Matric Scholarships to S.T Students (IXth to Xth)	2354 students	71.95
Post-Matric Scholarships to S.T Students	4637 students	884.50
Vidya Laxmi, girls of ST community	820 girls	205
Gagan Bharari Shiksha Yojana	1476 students	111.60
Merit Based Award and Recognition of High Performance in the Board Exams of SSC and HSSC	611 students	59.96
Pre-primary schools for ST children in remote areas	5 schools	7.55
Grants-in-aid to Voluntary Organizations for Running Hostels	8 hostels	44.84
Sahayata scheme	5 NGO's	7.03
Atal Asra Yojana	1177 Beneficiaries	1773.44
Support Orphan Child / Children of widow belonging to ST community	966 Children	149.73
Antya Sanskar Sahay Yojana	944 Beneficiaries	184.55
Adivasi Vikas Yojana-	08 nos. of work	68.62
Construction of Multipurpose Community hall	02 nos. of work	535.52

Article 275 (1) of the Constitution of India	02 Projects/works	349.81
Special Central Assistance to Tribal Sub Schemes		631.53
Udyog Adhar Yojana (ST)	113 Beneficiaries	14.36
Matrutva Yojana under IVF/IUI	60 No. of Couples	300.00
Financial assistance for ST people for short term professional training courses in Goa	325 applicants	16.25
Celebration of Prerana Din		18.59

Goa State Scheduled Tribes Finance and Development Corporation Ltd.

The objective of corporation is to bring about educational, economic, and social development of the S.T. community in Goa. The Corporation is presently implementing three loan schemes as given below:

Table No. 16.22
Beneficiaries & Scheme as on February 2022

Schemes	No. of Beneficiaries	Amount (₹ in lakh)
Ashraya Adhar Scheme	1st Inst. 126	461.01
	2nd Inst. 155	184.58
Short term loan scheme	48	41.08
Self Employment Scheme	4	25.83

Under Goa Tribal's Employment Generation Programme Scheme loan up to ₹ 25 lakh for MSME, ₹ 15 lakh for service enterprises and ₹ 15 lakh for trading activities with 40% subsidy on the total loan amount i.e. 95% of the project cost @ 2% per annum with a repayment period up to 10 years including moratorium period of 3 to 6 months is provided to any unemployed person who has studied up to 4th Std and above (relaxable in deserving cases) and age between 18 to 45 years

belonging to a member of tribal community.

Table No.16.23
No. of beneficiaries and amount disbursed under GTEGP as on February 2022
(₹ in lakh)

No. of cases	Loan	Subsidy
12	76.65	51.10

SPORTS AND YOUTH AFFAIRS

The development of Village School Playground/ Sports Complexes works has been completed. Maintenance of Floodlight System at Government Village Playground, Succorro, Bardez Goa, Development of Village Playground at Malkernem, Quepem-Goa (Phase-I), Development of Sports Ground for School at Devbag, Canacona, Govt. High School, Goval Khol, Canancona, Development of Cricket ground Jogging Track at Shristhal, Canacona and Development of Village Playground at Bhati, Sanguem at an approximate cost of ₹ 12.00 crore have been taken up.

Project under National Games at Sports Complex, Sawalwada, Pernem, Indoor Sports Complex and development of Baseball field at Campal, Tiswadi have been completed.

The work of refurbishment, renovation and site development, changing room, Administration cabin, filtration and plumbing system, Design, supply installation, testing and commissioning of arena lighting at swimming pool, Campal, Tiswadi, Development of Lawn Tennis Courts at Fatorda, Salcete, upgradation of Squash Court, construction of changing room at Hockey ground, Peddem, Bardez, Construction of Lawn Bowl Courts at Chicalim, Mormugao will be completed in the course of time at an approx total cost of ₹ 200.00 crore.

Sports Festivals

State Civil Service Badminton Contingent was deputed to participate in All India Civil Service Tournament held at Thyagraj Stadium, at NCT, New Delhi from 24th to 30th September 2021 and an expenditure of ₹ 4.20 lakh was incurred.

The Inter School tournament in Badminton and Chess has been conducted at Taluka level approximately 2000 players have participated. An expenditure of ₹ 3.57 lakh was incurred. State Hockey U/15 and U/17 boys team was deputed for National Level J. N. Hockey tournament held at Delhi from 14th Dec. to 6th Jan. 2022. An expenditure of ₹ 6.58 lakh for both teams was incurred.

The Sports Authority of Goa through Directorate of Sports & Youth Affairs has been undertaken 11 major sports infrastructure projects with the cost of ₹ 200.00 crore of which Hockey Stadium at Peddem, Indoor Multipurpose Stadium at Sawalwada, Pernem and Navelim, Salcete and refurbishment of Multipurpose Hall at Ponda and renovation of Tilak Maidan, Vasco have already been completed.

COLLECTORATE- South

During the 2nd wave of Covid-19 Pandemic, 6 Government Covid Care Centres, 4 free Private Covid Care Centres and 8 Private Covid Care Centres had been set up for Covid positive patients for south Goa district with a total bed capacity of 641. Nodal Officers were appointed for each facility to monitor day to day situations for effective control and co-ordination. Oxygen management was undertaken for all facilities and no shortage was noted due to the efforts of District Administration.

As on 03/03/2022, 1337 Covid Ex-gratia claims amounting to ₹ 668.50 lakh have been disbursed. Tika Utsav was conducted successfully across the District. Line Departments like CDPOS, BDOs, etc were teamed up for identification and mobilisation of the vaccination drive in order to cover maximum number of people for vaccination.

Special Vaccination Camps were organised for persons without prescribed ID Cards, for persons with disabilities, Senior Citizens, people in remote areas, etc. In addition to the Vaccination Centres that are running in Government Health Centres in South Goa, 17 additional Vaccination centres were set up. An expenditure incurred to fight Covid-19 Pandemic (₹ in lakh) in 2021-22 (upto February 2022) under CM's COVID Relief Fund ₹ 634.72, PM CARES Fund ₹ 180.36, State Disaster Response Fund ₹ 1219.06 and PM National Relief Fund ₹ 4.00.

During Cyclone Tauktae Collectorate co-ordinated with all agencies including Fire and Emergency services, Police Force, Electricity Dept. Water Supply, Fisheries Dept. Tourism Dept and other stake holders. The District Disaster Management Authority have settled 594 Cases (out of which 2 are death claims) amounting to ₹ 86.42 lakh for damages caused by the Cyclone Tauktae.

Goa had experienced its worst floods in its history since liberation. Rescue and relief operations was carried out in Ponda, Dharbandora and Sanguem areas of South Goa District.



Rescue operation by fire fighters at Takwada

A Total 866 claims of damaged houses amounting to ₹ 116.76 lakh and 27 losses of cattle claims amounting to ₹ 1.80 lakh has been settled from April to December 2021.



Distribution of Dry Ration Kits at Dhavkond by District Administration.



Drone Shot of submerged Dhavkond.

Total Revenue collected for the financial year 2021-22 till December 2021 is ₹ 2,990.5 lakh towards land revenue, stamps & registration and other admn. services.

Other Achievements

- Conducted "Sarkar Tumcha Dari" Administration at your doorstep program in 5 talukas, where various Government Departments provided their services to the public at large.
- On occasion of Gandhi Jayanti and Azadi ka Amrit Mahotsav "Clean India" Programme, cleanliness drives were also successfully organized with the participation of Government Department staff and Teachers of Schools participated.

- Issued orders within the jurisdiction of South Goa District to maintain harmony, public peace and safety.
- Effective steps were taken towards implementation of COPTA Act and creating awareness about harmful effects of consumption of Tobacco products and cigarettes.
- Raids are also conducted under minor Mineral Concession Rule.
- Over 10000 revenue cases have been disposed by South Goa Collectorate (Partition cases-1579, Mutation cases -6933, Conversion cases-924, Mundkar Cases-216, Tenancy cases -223)
- Over 65,000 certificates have been issued online through Goa online (Residence certificate-49409, Divergence Certificate -2576, Caste Certificate -12419, Income Certificate -836)
- 5 District Mineral Fund Projects have been sanctioned by the Committee.
- Under Forest Rights Act 2006, a total of 136 Forest Rights Claims were approved by the District Level Committee of South Goa District. 25 numbers of Sanad were issued to the claimants under Forest Right Act 2006.
- Sale Deeds executed for Railway Doubling Project (5313 sq.m. land) and for Construction of Sump & Pump House of Panchayat in village Curtorim of Salcete taluka (504 sq.m.)
- Procured land transferred to Acquiring Department for Railway Doubling Project (45115 sq m) and Procurement of land for Multi Modal Logistics Park in Bali Quepem (3220 sq m)
- General Elections to Zilla Panchayat and Municipality were held smoothly without any law and order problem.

Collectorate North

The State has witnessed major Cyclone Tauktae, Floods/Heavy rainfall. As a

result, there was major damage due to fall of trees, flooding etc. in talukas of Tiswadi, Bardez, Bicholim Pernem and Sattari. With the help of taluka Administration, the damages suffered by the local were assessed in order to assist them financially in the form of compensation of the losses.

In order to overcome the losses, an expenditure of ₹ 69.93 lakh has been incurred towards compensation disbursed to the 5 talukas of North-Goa District against 840 claims approved by District Level Committee. Additional amount of ₹ 299.35 lakh has also been disbursed to the victims of flood affected areas of five talukas of North Goa District.

In compliance to the directions of the Hon'ble Supreme Court of India, the Collector/ Chairman of District Management Authority North had appealed to the Public of State of Goa to submit applications/ claims for the EX-Gratia Assistance of ₹ 50,000/- to the next of kin of deceased due to covid-19.

1,254 claims have been sanctioned towards compensation of Ex-Gratia and an amount of ₹ 627.00 lakh has been disbursed to all five talukas of North Goa District. North-Goa District started administration of Covid-19 vaccination from 16th January 2021. As of 31st January 2022, First Dose of Vaccine has been administered to total 6,88,119 persons, whereas, Second Dose of Vaccine given to total 5,74,099 persons. In addition to this, Precautionary Dose has been administered to 24748 persons as on 31st January 2022.

Electors Verification Programme (EVP) was conducted and North Goa District has achieved 100% verification. The State Level National Voters Day was celebrated with great enthusiasm on

25/01/2021. His Excellency Governor of Goa was the chief guest on the occasion. Newly enrolled voters were issued Epic cards. Special felicitation ceremony was also held to appreciate outstanding contribution made by officials during conduct of election.

During this financial year 2021-22, till January 2022, total number of 101 conversion Sanads have been issued by the branch against applications for the conversion of land for agriculture purpose to non-agriculture. Application filed under Section 32 (1) of Goa Land Revenue Code, 1968, thereby collecting the total amount of ₹ 9.83 crore as revenue to the Government.

CIVIL SUPPLIES AND CONSUMER AFFAIRS

An award was received in the hands of Hon'ble Chief Minister of Goa on 15/08/2021 and also at the hands of Hon'ble Prime Minister of India on the occasion of 60 years of Goa's Liberation Day on 19/12/2021 in recognition for successfully implementing Pradhan Mantri Garib Kalyan Anna Yojana scheme in the state.

Various Consumer Awareness Programmes/ Activities on different themes on the occasions of World Consumer Rights Day (15th March), State Consumer Rights Day (25th June) and National Consumer Rights Day (24th December) were organized & celebrated at village, Institutional, Taluka and State levels.

Organized programme to generate awareness about PM-GKAY scheme held at Marcel, Sanvordem and Quepem, wherein some identified NFSA beneficiaries were provided with 05 kgs of Rice free of cost.

1285 fair price shops were inspected. 273 inspection of Kerosene dealers were carried at the Taluka level and 7 commercial establishment were also

inspected. Licenses has been issued to 05 new Fair Price Shop to facilitate the General Public to draw their monthly entitled foodgrains under PDS.

Table No.16.24
Ration cards issued and population covered as on 08/03/2022

Category	Total cards	Population covered
Antyodaya Anna Yojana (AAY)	12360	44733
Priority House Holds (PHH)	130691	498804
Above Poverty Line (APL)	210319	801353
Annapurna (ANP)	81	83
Total	353451	1344973

REGISTRATION DEPARTMENT

- Revenue of ₹ 132.35 crore has been generated for the financial year 2020-21 by levying Registration fees on documents registered under the Registration Act, 1908, Registration of Marriages, Fees for issue of Birth and Death Certificates, Fees towards Registration of Notarial Deeds, Fees collected under Change of Name and Surname Act, 1990, Partnership Firms, Societies Registration Act 1860, Marriage Certificate Correction, Fees collected under Goa Reconstruction of Registers and Records Act, 2005, etc.
- The Marriage registration has been made online.
- The process of scanning digitization and meta data entry of all birth, death and marriage records that remained unscanned previously has been initiated.
- The previously scanned marriage record from year 1914-2010 are made available online for public search and can be viewed/searched on Goa Online Portal.
- Continuous improvements and updation are carried out to the National Generic Document

Registration System (NGDRS) software for making it more user friendly and catering the needs of general public.

- Committees consisting of (Sub-Registrar and retired State Registrars) are formed for proposing amendments to the Registration Act 1908 & the Society Registration Act 1860 & rules made there under.
- From the year 2008-2018 documents registered under the Registration Act are scanned and are under verification for uploading; and same will be uploaded. Approval of Government is obtained for procuring the said scanned records from ITG so that same could be uploaded and integrated in National Generic Document Registration System (NGDRS). Steps are already taken to procure the scanned data from ITG and five offices have received the data for verification.

The revenue Collected for the financial year 2021-22 upto December 2021 is ₹ 20159.07 in lakh.

FOOD & DRUGS ADMINISTRATION

The responsibility of controlling quality of food articles and drugs, manufactured and sold within the State as well as manufactured outside but sold in the State. Online Registration Certificates and licenses for food establishment are issued through FOSCOS Portal of FSSAI. It is a paperless process. Sales drug licenses are issued through XLN Portal, which is also totally online process. State of Goa for the third consecutive year has ranked first in the Food Safety Index at the instance of this Directorate by FSSAI.

The existing facilities of the Food & Drugs testing Laboratory in terms of providing testing facilities for fruits, vegetables and soft drinks for pesticide residues, heavy metals, microbiological

testing etc. High end equipments such as LC-MS-MS; GC-MS-MS and ICP-MS are procured through FSSAI Funding. At present, Food Laboratory is NABL accredited.

Further, the assistance from Central Government of an amount of ₹ 2.43 crore is received for strengthening of State Drug Regulatory System. Civil Work of the Laboratory Infrastructure of the drug laboratory microbiology section has been completed. Many of the instruments for the microbiology section have been procured by e-tender process and the procurement of remaining instruments will be done by e-tender or through GEM portal. UV-visible spectrophotometer has been procured through State Fund along with air sampler and other instruments.

Under Financial Assistance from AYUSH, Drugs Laboratory has procured Dissolution tester as well as Chemical/ Glassware.

Food Laboratory have received an amount of ₹ 10.64 crore in February 2022 from Food Safety and Standard Authority of India (FSSAI) under Central Sector Scheme of which ₹ 7.08 crore have been utilized for maintenance, consumables and operator charges and high end equipments. The Microbiology laboratory is also equipped with UPS for uninterrupted work.

SKILL DEVELOPMENT & ENTREPRENEURSHIP

Major achievements / performance

- Online Admission System launched in the State for admission to ITIs from the academic year 2020-21. After suggestion/ feedback from Government & Pvt. ITIs, the portal was updated for online admission process. 3051 candidates were admitted in NCVT and SCVT affiliated trade courses through online process for the academic year 2021-22.

- 3,693 trainees appeared for various examination like ATs, HRDF, CoE, CTS etc. in Sept./Oct./Nov. 2021.
- Nine new trade courses have been introduced in the sessional year 2021-22 in various ITIs namely Dress Making at Farmagudi Govt. ITI; In-plant Logistic Assistant at Cacora & Farmagudi Govt. ITI; Fashion Design Technology at Bicholim Govt. ITI; Lift & Escalator Mechanic, Floriculture & Landscaping, Fire Technology and Industrial Safety Management, Mason (Building Constructor), Domestic Painter at Cacora Govt. ITI and Smart phone technician cum app tester at Margao Govt. ITI.
- Apprenticeship Melas were conducted on 04/10/2021 in North Goa at Bicholim Govt. ITI and South Goa at Farmagudi Govt. ITI. 26 establishments participated in these Melas. 337 candidates were registered and only 233 candidates were short listed.
- Academic equivalence to ITI Course, total number of 105 trainees' documents have been verified to appear for SSC & HSSC under education equivalency examination conducted by Goa Board for the year 2021-22.
- 'Train the Trainer' programme was conducted for Vocational Instructors of trades Fitter, Instrument Mechanic, Electrician and Refrigeration & Air Conditioner (RAC) in association with Goa Pharmaceutical Manufacturers' Association under STRIVE scheme. Conducted 'Train the Trainer' programme for Vocational Instructors of Employability Skills, Counselors and Mahatma Gandhi National Fellows.
- The Skill India Regional Level Skill Competition (West Zone) was conducted in October/ November 2021 in Gandhinagar, Gujarat. More than 230 participants from five States including Goa, Gujarat, Madhya Pradesh, Maharashtra and Rajasthan participated in 38 skills. 20 students from Goa represented the State to compete in 11 skills and has won 3 medals i.e. 01 Gold medal in the category of Hotel Reception Skill, 02 Silver medals in the category of Visual Merchandising and Refrigeration & Air conditioning Skill Category respectively.
- Under Apprenticeship Training Scheme, 456 establishments have been registered on the Apprenticeship Portal. 1301 Apprentices engaged in optional and designated trades in the year 2020-21. Vasco Government ITI has been registered as a "Basic Training Providers" on Apprenticeship Portal by Central Ministry. And other nine Government ITIs registrations are in process.
- Under Human Resource Development Foundation (HRDF) 57 Institutes registered Society with 36 courses of 6 months duration and 31 courses of one year duration with an intake capacity of 3680 trainees. 733 Nos. of trainees are enrolled for the HRDF courses for the year 2021-22.
- The Ministry of Skill Development & Entrepreneurship (MSDE), GoI has launched special training program "Customised Crash Course Programme for COVID Warriors" under six Healthcare job roles under Pradhan Mantri Kaushal Vikas Yojana (PMKVY) to support the fight against the CORONA pandemic.
- The State is allocated a target of 1087 candidates in central Component and 120 in State component. The courses covered under Crash courses are Basic Care

Support, Advanced Care Support, Home Care Support, Medical Equipment Care Support,) Sample Collection Support and Emergency Care Support.

- Training under job roles involves maximum 21 days training in training Centres affiliated to NSDC under Central Component of PMKVY, followed by a period of 90 days On Job Training (OJT) in PHCs/ Govt. Hospitals in Districts/ Other hospitals. The training has commenced in District Hospital South Goa, CHC Pernem and CHC Canacona under State component with a total of 36 candidates undergoing training.'
- The Sai Nursing Institute, Sankahli and GE WIPRO, Old Asilo Hospital, Mapusa has commenced training under Central component of the Scheme. A total of five batches with total of 77 candidates who are interim certified by Healthcare Sector Skill Council are placed on On Job Training in various Government Hospitals as Corona Warriors and they are supporting the Frontline workers in fight against the pandemic.

EXCISE

The services in the Goa Excise Management System (GEMS), which was launched in 2014, have now been extended and Permits, Recording of labels and Grant of liquor licences, Online applications and processing for grant of new licences, transfer and shifting of existing licences and cancellation are presently being issued through it. Few more services for the use of general public were opened. Revenue amounting to ₹561.25 crore was collected upto February 2022.

New Modules in the Goa Excise Management Systems (GEMS), such

as issue of digitally signed transport permits, which can be directly printed by the wholesalers and printing of digitally signed permits at the unit level. The Department started new user friendly website (URL:<https://goaexcise.gov.in>) for general public, through which people can know about various procedures, contact details, fees & duties, various facts and figures and also authenticate and verify licences, labels, permits, NOC etc issued by the Department.

Besides, two Android based Mobile Apps are also started one for all the licenses to upload accounts of daily transactions as prescribed under the Goa Excise Duty Act & Rules, 1964 and another for department for using at Excise Check posts for scanning the import/export permits.

The Department was qualified for the Semi Finals of Skoch Award 2021 for Goa Excise Management System (GEMS) & National Informatics Centre and on the occasion of Armed Forces Flag Day 2021 this department was awarded with third place among other Government Department for collecting amount of ₹ 3.84 lakh towards Armed Forces Flag Day.

LEGAL METROLOGY

Revenue amounting to ₹ 159.73 lakh till November 2021 was collected as against the target of total revenue of ₹ 193.00 lakh towards verification, compounding and other fees. The total numbers of inspections are 2000.

INSPECTORATE OF FACTORIES & BOILERS

Major achievements

- Registered 19 new factories under the Factories Act, 1948 and were granted licenses.
- Registered 06 new Boilers under the Boiler Act, 1923 & granted licenses.

- Conducted 02 programmes of 3 days duration for drivers on “Safe Transportation of Hazardous Goods by Road” wherein 47 participants were trained.
- Initiated 04 legal proceedings in the court of law against the defaulters of the provisions under the Factories Act, 1948 and Boilers Act, 1923.
- Notified 15th amendment to the Goa Factories Rules, 1985 so as to further enhance and strengthen the safety, health and welfare of the workers in the factories which also includes various provisions for additional revenue generation.
- Conducted four weeks certificate course for the supervisors working in hazardous process industries wherein 24 candidates participated.
- Conducted 3 months certificate Course for MBBS graduates of ‘Industrial Health’ affiliated to DGFASLI, Mumbai wherein 14 candidates participated.
- Revenue generated in the financial year upto February 2022 is ₹ 381.56 lakh.

SETTLEMENT AND LAND RECORDS

Undertaken the scanning of balance records i.e. Registo do Agrimensor (Register of owner name and other details), Auto de Demarcacao (Demarcation and details), Cadernata do Campo (Field Book), Form II, Form III, SLT (Soil Classification Book) and Original P.T. sheets remained to be scanned. The above work is presently, carried through ITG’s empanelled vendor M/s Nine stars Information Technologies Pvt. Ltd.

All records Textual as well as map data have been computerized. Shifting the map data from proprietary software to Bhunaksha is in final stage. As of now, Maps, Form I & XIV are available for information to all as well as on payment through goa online services. Department is working on correlating

the map data to GIS based software, wherein, the land parcels will be GIS correlated to create new advancement identification of land parcels.

Department is committed to use Modern techniques of land survey by using modern equipments such as Electronic Total Station and Differential Global Positioning System thereby switching over from old methods to new methods of Land Survey and recording measurements.

OFFICIAL LANGUAGE

The Directorate in collaboration with National Translation Mission, Central Institute of Indian Languages, Mysore organized online lecture series on Translation Skills for government servants under the Rajbhasha Jagruti Yojana. The workshop was attended by around 35 government servants including in-house translators of the Directorate.

A talk on “Literacy in our lives” on the occasion of International Literacy Day was organized under the Rajbhasha Jagruti Yojana. It was an online event and streamed on YouTube. A workshop on “Basic Knowledge of Devanagari Typing” for the Government employees was organized so as to enable them to undertake Devanagari typing. It was held online in two phases and a total of 85 Government employees benefitted from this training.

The in-house translators of this Directorate had drafted English-Konkani vocabulary & sentences (bilingual) as a reference material/ syllabus for various workshops & programmes organized by the Directorate.

Under the Scheme of Publication in Official Language, 03 unpublished manuscripts, two in Konkani and one in Marathi language has been received from the Goan writers for availing the benefit under this Scheme of Publication. The manuscripts are

under process of evaluation of the Evaluation Committee and same will be published with due recommendation of the Evaluation Committee after obtaining the approval of the Government.

COMMERCIAL TAX

The Commercial Tax Department is the revenue earning arm of the Government and collects indirect taxes such as GST, VAT, CST etc. The 'Economic Intelligence Unit' (EIU) has been formed by the Department to increase surveillance and monitoring & verification of E-way bills, During the year 2021-22. Around ₹ 3.71 crore (upto October 2021) has been recovered from tax evaders by conducting away bill drives, inspections, and search and seizures operations.

The Head Office of the Department is shifted to its newly constructed building "Goa Rajya Kar Bhavan" situated at Altinho, Panaji. The building is designed as a Barrier free building with entry ramps, universal lift & toilet, tactile flooring tiles. The Building also houses State of the art conference Hall with a HD video wall facilitating video conferencing.

MUSEUM

Major achievements

To protect the Museum collection from deterioration due to effects of humidity, light and insects, each and every object in the collection was inspected, cleaned and re-organized in the stores.

The land admeasuring 9500 sq. mtrs at Ella, Old Goa under the possession of Directorate of Agriculture has been transferred to Goa State Museum for construction of new building of State museum. Proposal for availing the scheme of Museum grants for construction of new building at Ella, Old Goa along with detailed project report has been sent to Ministry of Culture,

Government of India, New Delhi. An amount of ₹ 6.17 lakh was spent till date.

DIRECTORATE OF ARCHIVES AND ARCHAEOLOGY

Archives: Research facilities were extended to 20 scholars including 02 foreign scholars and about 66 books were issued for their research work. 7,815 public visitors were attended to in connection with property documents, courts files/ notarial deeds /village community records, birth, baptism, marriage, death records, travel records, etc. 5,316 certified documents comprising of around 25,852 photocopies were issued to the public and 18,065 digital images of records on CD ROMs were issued to the research scholars. 4,082 on-line applications pertaining to Birth and Death records (1914 - 1970) received from offices of the Civil cum Sub Registrar of all the talukas of Goa were cleared. Revenue receipts amounting to ₹ 14.50 lakh was collected upto February 2022.

Archaeology: Periodical conservation and restoration of the 51 protected monuments/sites have been pursued for their proper upkeep. Pamphlets on Forts of Goa were published to create awareness of State Protected Forts. Painting of St. Xavier Chapel, Old Goa, Namazgah, Bicholim and Tar Surla Mosque, Bicholim were completed. One linga and three pithas from Umdir, Kharwada, Ponda taluka which were out of worship were salvaged for posterity. Restoration work of Fort of Alorna, Phase- II has been completed.

DIRECTORATE OF SMALL SAVINGS & LOTTERIES

The Government of Goa is presently operating Paper Lotteries and marketing through three Marketing Agents viz. M/s Summit Online Trade Solutions Private Limited, M/s. Future Gaming and Hotel Services Pvt. Ltd.

and M/s. B. S. Enterprises unit of Goldwin Healthcare Pvt. Ltd. Thereby, generating the additional revenue to the Government of Goa. As on February 2022, the revenue collected are ₹ 10.87 crore from sale of Lottery Tickets, unclaimed and other receipts.

DIRECTORATE OF ACCOUNTS

The payment of monthly pension as well as pensionary benefits of the pensioners of the State Government through the identified public sector banks has been initiated by crediting the benefits directly to their bank accounts. Thereby, eliminating compulsory visits to the respective District Treasury Offices or Sub-Treasury Offices.

Table No.16.25
Number of pension cases received and disposed as on Feb. 2022

Particulars	Cases Received	Cases Disposed
Pension cases	4754	4266
Pre- 2016 revision cases	15492	10743

POLICE

“Pink Force” with 114 ladies Police Personnels has been constituted to maintain their presence, patrolling into the potential areas and behave in a professionally & friendly with the victim and handle accordingly, to protect, prevent and mitigate crime against Women, Children’s and vulnerable persons of the society. 524 Nos. of CCTV Cameras has been constituted in North & South District.

PUBLIC GRIEVANCE

The State portal namely as the Public Grievance Redressal System (PGRS), the online grievance registration system has been started from 01/09/2017, where the general public can register their Grievance/ complain through online either directly to the concerned Department or to office. Till February

2022, 620 grievances have been registered on online modes by general public and out of which 617 grievances have been successfully addressed/ closed. The State portal PGRS was integrated with the Central Public Grievances Redressal and Mechanism System (CPRAMS). An expenditure incurred till February 2022 is ₹ 63.13 lakh.

LABOUR & EMPLOYMENT

The Enforcement Cell carried out 2342 inspections, 20 prosecutions against the defaulting employers under various Labour Laws during the period from April, 2021 to November, 2021.

The Industrial Tribunal-cum-Labour Court and the Labour Court-II disposed off 83 cases each during the period April, 2021 to December, 2021 thereby giving relief by way of awards to the deserving workmen/ employers.

The Retrenched Workers Assistance Scheme is the most prominent scheme under the Goa Labour Welfare Board. From April, 2021 to December, 2021, 95 beneficiaries have been availed and an amount of ₹ 18.71 lakh was disbursed to these beneficiaries. The Goa Building and Other Construction Workers Welfare Board constituted under the Building and Other Construction Workers Act, 1996 implements the welfare schemes designed for the building workers. The total amount of cess collected from April to December 2021 is ₹ 4056.40 lakh.

Table No.16.26
Cases disposed off, April to Dec, 2021.

Act	Cases disposed off
Employees Compensation Act, 1923,	
Fatal cases	17
Non-fatal cases	10
Payment of Gratuity Act 1972	25
Payment of Wages Act 1936	38
Minimum Wages Act 1948	6

An amount of ₹ 136.94 lakh has been collected as revenue under different Labour Legislations during financial year 2021-22 upto Nov, 2021.

At present, approximately 2,16,120 Insured workers are covered under the E.S.I. Scheme in the State of Goa along with their family members covering a total of approximate ₹ 8 lakh of the population of the State. Last year E.S.I. Hospital, Margao was notified as a dedicated Covid-19 Hospital in the State of Goa and now has been de-notified and has re-started providing services to the E.S.I. Beneficiaries.

During 2021-22, due to the severe 2nd wave of Covid Pandemic and the shortage of oxygen and also an increase of patients requiring oxygen supplementation, ventilator support etc., a PSA oxygen generation Plant of 100 LPM capacity was installed by DRDO at the E.S.I. Hospital sanctioned under PM CARES fund.

A new E.S.I. Dispensary was made functional at Dongarpur, Naikwado, Calangute, Bardez-Goa from October, 2021 for the benefit of E.S.I. beneficiaries working/ staying in the North Goa coastal belt.

Box 1: e-SHRAM Portal

e-SHRAM portal has been launched to create a National Database of Unorganized Workers (UWs). One of the main objectives of this portal is to facilitate delivery of Social Security Schemes to the workers.

This database is seeded with Aadhaar and for age group between 16-59 years. It includes construction workers, migrant workers, gig workers, platform workers, agricultural workers, MGNREGA workers, fishermen, milkmen, ASHA workers, Anganwadi workers, street vendors, domestic workers, rickshaw pullers and other workers engaged in similar other occupations in the unorganised sector.

The data aims at delivery of social security benefits as implemented by Central & State Ministries. It will also ensure portability of the social security and welfare benefits to the migrant and construction workers at their working places. All eligible registered unorganized workers are entitled to get benefit of an accidental insurance cover of ₹ 2.00 Lakhs for a year, free of cost through under Pradhan Mantri Suraksha Bima Yojana (PMSBY). It may also be used for providing assistance to the eligible workers during any national crisis or pandemic like situations.

As on 24th February 2022, In Goa out of total 20838 registrations the top 5 occupation sectors includes agriculture which accounts for 3.3 K, Construction 3.1 K, Domestic workers 2.0 K, and Apparel 1.9 K. registrations.

Source: Ministry of Labour and Employment portal

Employment Exchange: From April to February 2022 about 66354 number of Job-seekers have been registered their name in Employment Exchanges in the State of Goa. 6320 number of vacancies has been notified by different employers. The Employment Exchange has sponsored names of 135815 numbers of Job-seekers

against the vacancies notified by different employers during the period. 783 numbers of persons have been placed in different Government & Private/ Public sector organizations.

Model Career Centre (MCC) under Regional Employment Exchange has conducted various outreach activities online as well as offline such as

Programme on Career Guidance / Counselling, Seminars on Soft Skill Trainings, Sessions on Civil Service Competitive Exams (UPSC & GPSC), Job Fairs & Placement Drives etc.

GENERAL ADMINISTRATION DEPARTMENT

The Department has taken over the possession of the vacated State Museum building alongwith the plot handed over by the Directorate of Museums on 04/06/2021 in view of decisions taken by the Council of Ministers in the XL VIIth Cabinet Meeting held on 21/05/2021.

The administrative approval has been conveyed to GSIDC towards the work of addition/alteration to the third floor of Ministerial Block, Secretariat, Porvorim, to design entire floor for new Chief Minister's Office at an estimated cost of ₹ 762.24 lakh. General Administration Department-II, has been designated as Client Department for the construction project of late Shri Manohar Parrikar's Smriti Sthal at Miramar project. The project is handed over to Goa State Infrastructure Development Corporation Limited (GSIDC) under consultant UCJ architecture & environment for development. The total cost of the project is ₹ 8.00 crore.

Goa Institute of Public Administration & Rural Development

- On 18th June 2021, to mark the 75th Anniversary of Goa Revolution Day, GIPARD organised a public lecture on the topic, '18th June 1946 and its aftermath'.
- On the occasion of Goa statehood Day, GIPARD conducted an online quiz on 30th May 2021. The quiz consisted of 30 multiple choice questions on the topic 'Goa, past and present'.
- The Post Graduate students of the course on Community Engagement

& Rural Development were given an orientation on 23rd November 2021, wherein 29 students attended the session.

- Departmental Training Programme for the Junior Scale Officers of Goa Civil Service.
- Departmental Training Programme for the Junior Scale Officers of Goa Police Service for 14 Dy. SPs.
- Election trainings in two Batches for Certification Programme for Returning Officers & Assistant Returning Officers of Goa was organized in collaboration with Office of Chief Electoral Officer of Goa, India international Institute of Democracy & Election Management, New Delhi and Election Commission of India.

Table No.16.26
Trainings conducted by GIPARD,
as on December 2021.

Sector	No. of Programmes	No. of Participants
Rural Development	124	6279
Panchayati Raj / Urban Development	69	2622
Womens Development & Disaster Management	41	1341
Public Administration / Demand Based programmes	28	3286
TOTAL	262	13528

CHAPTER: 17

SCIENTIFIC RESEARCH & INNOVATION

Investment in Science, Technology and Innovation (STI)

STI is essential for economic development and social progress of the State as well as the country. Research and Development (R&D) can foster sustainable development by building greener, more inclusive societies. To be effective, however, infrastructure development, technology transfer and both public and private R&D need to be nurtured and regulated via effective policies.

Research

It plays an important role in discovering new treatments, and making sure that we use existing treatments in the best possible ways. Research can find answers to things that are unknown, filling gaps in knowledge and changing the way that healthcare professionals work.

Research and Innovation

It plays an essential role in triggering smart and sustainable growth and job creation. By producing new knowledge, research is central to developing new and innovative products, processes and services, which enable higher productivity, industrial competitiveness, and ultimately prosperity.

Scientific innovation

It requires inventions that are useful for changing scientific research practices or systems in non-incremental ways.

Science Innovation

Successful exploitation of new ideas to generate new techniques, products and

processes. Traditionally, scientific innovation has been viewed as a process starting with curiosity-driven, basic research which generates new understanding.

There are many Research Institutions working independently without any interaction. In the State, State Government Institutions namely Goa University, Goa Engineering College, Pharmacy College, Higher Education, Science Technology, Goa Medical College, Dental College, etc.; Central Government Institutions namely, IIT, NIT, National Institute of Oceanography, ICAR, ICMR, CSIR, NCPORE, etc., Public Sector Undertaking namely Goa Ship Yard Limited, Private Institutions namely BITS Pilani Goa Campus, Private Sector Industries namely Siemens, Unicem, IFB, Glenmark, Bosch, Lupin, etc., are contributing a lot towards Research Development & Innovation.

As per Reserve Bank of India's Study Report, regarding Research and Development expenditure of States and UTs 2021, the Expenditure incurred towards Scientific Research of the state as a percentage of GSDP is 0.7% which is second Highest in the Country. The State wise expenditure towards R&D is in Annexure 43.

The Department wise detailed R&D Expenditure for the State of Goa for the year 2020-21 is presented in Table-17.1. From the table it is clear that Education, Health and Agriculture are contributing a lot towards R&D.

Table no. 17.1
Department wise detailed R & D expenditure for the State of Goa for the year 2020-21
 (₹ in Lakh)

Sl.No	Title	2018-19 Actuals	2019-20 BE	2019-20 RE	2020-21 BE
1	2	3	4	5	6
1	Medical Health, Family Welfare & Sanitation	19053.45	26039.64	25950.64	30382.49
2.	Education R &D	67.96	187.21	187.21	197.01
3.	Labour Research	0.00	0.00	0.00	0.00
4.	Infrastructure Research	0.62	2.50	2.50	6.00
5.	Agricultural Research	1154.10	2438.59	1438.59	1979.33
6.	Industrial research	0.00	0.00	0.00	0.00
7.	Social Security and Welfare	0.00	0.00	0.00	0.00
8.	Welfare SC &ST	0.00	10.00	10.00	8.00
9.	Environmental Research	0.00	50.00	10.00	50.00
10.	Housing & Urban Development	1.88	4.50	4.50	3.00
11.	Others	4182.99	10139.56	9889.6	25403.53
12.	Fiscal Research	0.00	0.00	0.00	0.00
	Total	24461.00	38872.00	37493.00	58029.36

Source: Research & Development Expenditure of States and UTs, RBI study Report- 2021

In the state, State Government agencies, Central Government Agencies, Public Sector undertakings, Private sector Institutions/companies are doing research. All are working independently. An attempt is made to bring all research activities in all sectors under one umbrella in order to provide guidance/share the research to reach scholars and to make the State as Research Hub.

State Government Agencies

Science & Technology: The main objective of the Science & Technology Department is to provide Grants to various research Institutions and also encourage the researchers by providing financial assistance for attending National and International conferences. The Financial assistance provided to various institutions in the last four years as seen in Table 17.2

Table no. 17.2
Financial assistance to various institutions in the last four years

Year	No. of Institutions	No. of Projects			Amount (₹ in lakhs)
		Students/Group of Students (i)	Researchers (ii)	Total (i + ii)	
2018-19	07	01	07	08	29.00
2019-20	06	00	08	08	30.77
2020-21	07	04	07	11	23.94
2021-22	10	07	07	14	40.93

Goa State Research and Innovation Council is a contributing a lot towards Research and innovation.

Creating an innovation movement with the involvement and commitment of people at all levels which is critical for solving challenges of inclusion in our society to set India in the path of inclusive growth and sustainable development is the ideology behind the activities proposed by the National Innovation Council. To achieve the objectives put forth by the National Innovation Council the focus areas have been identified for the State Innovation Council which is the roadmap for the progress of innovation

Objectives:

- Drive the innovation agenda in the state and harness the core competencies, local talent, resources and capabilities to create new opportunities.
- Support the State Government to promote innovation in the State.
- Encourage young talent in local universities, colleges, medium and small scale industries (MSME) and R&D institutes.

- Map opportunities for innovation in the State.
- Identify and reward talent in innovation and disseminate success stories.
- Organize seminars, lectures, workshops on innovation.
- Create the state innovation portal to educate and drive awareness on innovation.
- Provide input into the Innovation Roadmap for the State.

INITIATIVES:

1. Chief Minister's Startup Challenge
2. Student Project Competition
3. Boot Camp in Colleges
4. Faculty Development programme
5. Virtual Innovation Register
6. Stem Education
7. Industry Institute Interaction
8. Women Centric Seminar & Workshop

Goa University: Goa University is the oldest University and carrying out Research activities in 18 departments. The achievements of Research & Development for last five years is as seen in tables below

Table no : 17.3

No. of Research Papers published during the last five years only in SCI Journals:

Total No. of SCI papers (last 5 years)	No. of Faculty members with at least 10 SCI papers (last 5 Years)	No. of SCI papers per faculty (considering ALL faculty) per year (during the last 5 Years)
605	22	1.906

Table no 17.4

Record of PhDs awarded during last 5 years / ongoing / currently admitted only for S&T Department

No. of PhDs awarded during last 5 years		No. of ongoing PhDs as of		Year of admission of ongoing PhDs						
Full time	Part time	Full time	Part time	2021	2020	2019	2018	2017	2016	< 2016
132	124	106	64	52	10	26	25	12	15	30

Table no. 17.5

Record of i-10, h index

I	2016	2017	2018	2019	2020	2021
H – Index	63	66	66	68	68	68
I - 10	45	50	36	22	16	04

Table no. 17.6

Research Grants Received In Last Five Years - I

Details of 5 largest ongoing extramural research grants received during the last five years

Sl.No	Title of project and duration in Years	Amount sanctioned (₹ in Lakh)	Funding Agency
1.	Photodynamic therapy using virus-like Nanoparticle (VLNP) based BRET Nano-photo sensitizer for Non-invasive Cancer Treatment.	88.00	DBT
2.	Bioprospecting for active oligosaccharides produced from marine polysaccharides by bacterial CAZymes	74.99	DBT
	Diversity of Herpetofauna of Goa, Maharashtra and Karnataka.	50.20	MOEF
3.	Analysis of Optical Properties of Coastal and Estuarine Waters and Development of Algorithm to retrieve Chromophoric Dissolved Organic Matter from an Optical Sensor	46.31	NRB
4.	Development of Ultrasensitive Luminescent Paper Biosensor for Quantification of Cadmium and Arsenic Heavy Metals Contamination in Drinking water and Seafood.	42.25	DBT

Table No 17.7

Details of 5 largest completed extramural *research* grants during the last five years

Sl. No.	Title of project and duration in Years	Amount sanctioned (₹ in Lakhs)	Funding Agency
1	Towards higher efficiency and lower emissions using Indian-origin biofuels: Developing a predictive CFD model with well validated reduced combustion kinetic for device scale applications	53.98	DST
2	Optical manipulation and trapping single gold shell encapsulated semiconductor quantum dots and applications towards bioimaging.	49.50	SERB-DST
3	Investigation of the effect of reservoir rock composition on the reactivity of CO ₂ /O ₂ mixture with hydrocarbons in the depleted oil reservoirs	48.40	DST
4	Understanding dynamics of magneto structural coupling in manganese Inter-metallics exhibiting first order transition	44.30	SERB
5	Solid state NMR and computational study to probe the structural, defects and ion conduction mechanistic features in anti-perovskite based electrolyte materials.	29.00	SERB-DST
6	Development of coconut plucking robot Agri Engg.27 (12)/2015 - AE	27.24	ICAR

Central Government Institutions

There are many Central Government pioneering Institutions like, IIT, NIT, NIO, NIC, ICMR, ICAR, CSIR, etc., working in Goa contributing a lot towards Research & Development. These Research Organizations are organizing National / International conferences for dissemination of the Research works. They also presenting various papers and publishing the same in National and International reputed Journals. They also work towards obtaining Geographical Indication tagging for various commodities.

Public Sector Under taking

Goa Ship Yard in one of the institution contributing towards ship building for different Sectors.

Private Sector

Academia: BIT Goa Campus is contributing a lot towards the Scientific Research.

Manufacturing Sector

A lot of R&D is being done in holistic manner in the private sector where the knowledge of R&D is shared within their domain. Pharmaceutical Sector alone contributes more than 12% of the total country's production and carrying a lot a Research and exporting to other stakeholders. This has not tapped in the State's Economy, thereby creating a lacuna for the Research and Scholars. Efforts are on to make Goa as Research & Innovation Hub.

Annexure – 1
State wise distribution of Population– 2011 Census

Sr No	Name of the State& UTs	Males	Females	Total	% of Population to Total Population
1	Uttar Pradesh	104480510	95331831	199812341	16.51
2	Maharashtra	58243056	54131277	112374333	9.28
3	Bihar	54278157	49821295	104099452	8.60
4	West Bengal	46809027	44467088	91276115	7.54
5	Andhra Pradesh	42442146	42138631	84580777	6.99
6	Madhya Pradesh	37612306	35014503	72626809	6.00
7	Tamil Nadu	36137975	36009055	72147030	5.96
8	Rajasthan	35550997	32997440	68548437	5.66
9	Karnataka	30966657	30128640	61095297	5.05
10	Gujarat	31491260	28948432	60439692	4.99
11	Odisha	21212136	20762082	41974218	3.47
12	Kerala	16027412	17378649	33406061	2.76
13	Jharkhand	16930315	16057819	32988134	2.73
14	Assam	15939443	15266133	31205576	2.58
15	Punjab	14639465	13103873	27743338	2.29
16	Chhattisgarh	12832895	12712303	25545198	2.11
17	Haryana	13494734	11856728	25351462	2.09
18	National Capital Territory of Delhi	8987326	7800615	16787941	1.39
19	Jammu &	6640662	5900640	12541302	1.04
20	Uttarakhand	5137773	4948519	10086292	0.83
21	Himachal	3481873	3382729	6864602	0.57
22	Tripura	1874376	1799541	3673917	0.30
23	Meghalaya	1491832	1475057	2966889	0.25
24	Manipur	1438586	1417208	2855794	0.21
25	Nagaland	1024649	953853	1978502	0.16
26	Goa	739140	719405	1458545	0.12
27	Arunachal	713912	669815	1383727	0.11
28	Puducherry	612511	635442	1247953	0.10
29	Mizoram	555339	541867	1097206	0.09
30	Chandigarh	580663	474787	1055450	0.09
31	Sikkim	323070	287507	610577	0.05
32	Andaman & Nicobar Islands	202871	177710	380581	0.03
33	Dadra & Nagar Haveli	193760	149949	343709	0.03
34	Daman & Diu	150301	92946	243247	0.02
35	Lakshadweep	33123	31350	64473	0.01
	India	623270258	587584719	1210854977	100.00

Source: Office of Registrar General and Census Commissioner, India

Annexure- 2

Taluka wise Total Workers during Population Census 1961 to 2011

District/ Taluka	1961	1971	1981	1991	2001	2011
Goa	244261	254475	311247	383559	522855	577248
North Goa	143344	141288	171614	220625	307628	327658
Pernem	19942	16768	16382	21357	36278	28438
Bardez	34043	33570	42121	61108	87167	94662
Tiswadi	29750	34368	42912	49868	60249	73486
Bicholim	21976	18928	22190	27295	35411	37603
Satari	13235	10755	14376	17641	27080	24352
Ponda	24398	26899	33633	43356	61443	69117
South Goa	100917	113187	139633	162934	215227	249590
Mormugao	15673	25953	32737	38864	51439	62162
Salcete	42992	46995	54858	65178	89131	108209
Quepem	14161	13613	18962	22949	30342	32890
Sanguem	18112	17514	22182	22652	26658	27281
Canacona	9979	9112	10894	13291	17657	19048

Source: Office of Registrar General and Census Commissioner, India.

Note: As per 2011 Census Ponda Taluka is in North Goa District.

Annexure – 3

State wise literacy rate - 2011 Census

Sr. No.	Name of the State	Literacy Rate (%)	Male	Female
1	Kerala	94.00	96.11	92.07
2	Lakshadweep	91.80	95.56	87.95
3	Mizoram	91.30	93.35	89.27
4	Goa	88.70	92.65	84.66
5	Tripura	87.20	91.53	82.73
6	Daman & Diu	87.10	91.54	79.55
7	Andaman & Nicobar Islands	86.60	90.27	82.43
8	National Capital Territory of	86.20	90.94	80.76
9	Chandigarh	86.00	89.99	81.19
10	Puducherry	85.80	91.26	80.67
11	Himachal Pradesh	82.80	89.53	75.93
12	Maharashtra	82.30	88.38	75.87
13	Sikkim	81.40	86.55	75.61
14	Tamil Nadu	80.10	86.77	73.44
15	Nagaland	79.60	82.75	76.11
16	Uttarakhand	78.80	87.40	70.01
17	Gujarat	78.00	85.75	69.68
18	Manipur	76.94	83.58	70.26
19	West Bengal	76.30	81.69	70.54
20	Dadra & Nagar Haveli	76.20	85.17	64.32
21	Punjab	75.80	80.44	70.73
22	Haryana	75.60	84.06	65.94
23	Karnataka	75.40	82.47	68.08
24	Meghalaya	74.40	75.95	72.89
25	Odisha	72.90	81.59	64.01
26	Assam	72.20	77.85	66.27
27	Chhattisgarh	70.30	80.27	60.24
28	Madhya Pradesh	69.30	78.73	59.24
29	Uttar Pradesh	67.70	77.28	57.18
30	Jammu & Kashmir	67.20	76.75	56.43
31	Andhra Pradesh	67.00	74.88	59.15
32	Jharkhand	66.40	76.84	55.42
33	Rajasthan	66.10	79.19	52.12
34	Arunachal Pradesh	65.40	72.55	57.70
35	Bihar	61.80	71.20	51.50
	India	74.04	82.14	65.46

Source: Office of Registrar General and Census Commissioner, India

Annexure – 4

State wise Sex Ratio - 2011 Census

Sr. No	Name of the State	Males	Females	Sex Ratio
1	Kerala	16027412	17378649	1084
2	Puducherry	612511	635442	1037
3	Tamil Nadu	36137975	36009055	996
4	Andhra Pradesh	42442146	42138631	993
5	Manipur	1290171	1280219	992
6	Chhattisgarh	12832895	12712303	991
7	Meghalaya	1491832	1475057	989
8	Odisha	21212136	20762082	979
9	Mizoram	555339	541867	976
10	Goa	739140	719405	973
11	Karnataka	30966657	30128640	973
12	Himachal Pradesh	3481873	3382729	972
13	Uttarakhand	5137773	4948519	963
14	Tripura	1874376	1799541	960
15	Assam	15939443	15266133	958
16	West Bengal	46809027	44467088	950
17	Jharkhand	16930315	16057819	948
18	Lakshadweep	33123	31350	946
19	Arunachal Pradesh	713912	669815	938
20	Madhya Pradesh	37612306	35014503	931
21	Nagaland	1024649	953853	931
22	Maharashtra	58243056	54131277	929
23	Rajasthan	35550997	32997440	928
24	Gujarat	31491260	28948432	919
25	Bihar	54278157	49821295	918
26	Uttar Pradesh	104480510	95331831	912
27	Punjab	14639465	13103873	895
28	Sikkim	323070	287507	890
29	Jammu & Kashmir	6640662	5900640	889
30	Haryana	13494734	11856728	879
31	Andaman & Nicobar Islands	202871	177710	876
32	National Capital Territory of	8987326	7800615	868
33	Chandigarh	580663	474787	818
34	Dadra & Nagar Haveli	193760	149949	774
35	Daman & Diu	150301	92946	618
	India	623121843	587447730	943

Source: Office of Registrar General and Census Commissioner, India

Annexure – 5

State wise density of Population - 2011 Census

Sr. No	Name of the State	Area (Sq. Kms)	Total Population	Density of Population
1	National Capital Territory of Delhi	1483	16787941	11320
2	Chandigarh	114	1055450	9258
3	Puducherry	490	1247953	2547
4	Daman & Diu	111	243247	2191
5	Lakshadweep	30	64473	2149
6	Bihar	94163	104099452	1106
7	West Bengal	88752	91276115	1028
8	Kerala	38852	33406061	860
9	Uttar Pradesh	240928	199812341	829
10	Dadra & Nagar Haveli	491	343709	700
11	Haryana	44212	25351462	573
12	Tamil Nadu	130060	72147030	555
13	Punjab	50362	27743338	551
14	Jharkhand	79716	32988134	414
15	Assam	78438	31205576	398
16	Goa	3702	1458545	394
17	Maharashtra	307713	112374333	365
18	Tripura	10486	3673917	350
19	Karnataka	191791	61095297	319
20	Gujarat	196244	60439692	308
21	Andhra Pradesh	275045	84580777	308
22	Odisha	155707	41974218	270
23	Madhya Pradesh	308252	72626809	236
24	Rajasthan	342239	68548437	200
25	Chhattisgarh	135192	25545198	189
26	Uttarakhand	53483	10086292	189
27	Meghalaya	22429	2966889	132
28	Himachal Pradesh	55673	6864602	123
29	Nagaland	16579	1978502	119
30	Manipur	22327	2570390	115
31	Sikkim	7096	610577	86
32	Jammu & Kashmir	222236	12541302	56
33	Mizoram	21081	1097206	52
34	Andaman & Nicobar Islands	8249	380581	46
35	Arunachal Pradesh	83743	1383727	17

Source: Office of Registrar General and Census Commissioner, India

Annexure – 6

Taluka wise Density of Population of the State - 2011 Census

State/ District/ Taluka	Area (sq. km)	Population	Density of Population
Goa	3702.00	1458545	394
North Goa	1736.00	818008	471
Pernem	251.69	75747	301
Bardez	263.97	237440	899
Bicholim	238.80	97955	410
Tiswadi	213.57	177219	830
Satari	489.46	63817	130
Ponda	292.78	165830	566
South Goa	1966.00	640537	326
Mormugao	109.13	154561	1416
Salcete	292.94	294464	1005
Quepem	318.25	81193	255
Sanguem	836.82	65147	78
Canacona	352.04	45172	128

Source: Office of Registrar General and Census Commissioner, India.
As per 2011 Census Ponda Taluka is in North Goa District.

Annexure - 7

State-wise distribution of households availing banking facilities

Sr. No.	Name of the State / Union Territory	Percentage of households availing banking services*			
		Total	Rural	Urban	Urban - Rural Gap
1	Jammu & Kashmir	70.00	65.42	83.27	17.85
2	Himachal Pradesh	89.12	89.1	89.25	0.15
3	Punjab	65.21	62.84	68.97	6.13
4	Chandigarh	80.11	66.56	80.51	13.95
5	Uttarakhand	80.71	80.26	81.8	1.54
6	Haryana	68.13	65.92	71.87	5.95
7	NCT of Delhi	77.69	73.54	77.79	4.25
8	Rajasthan	68.02	68.21	67.42	-0.79
9	Uttar Pradesh	72.02	73.58	66.68	-6.9
10	Bihar	44.4	42.26	62.4	20.14
11	Sikkim	67.48	63.54	77.63	14.09
12	Arunachal Pradesh	53.03	43.14	82.4	39.26
13	Nagaland	34.88	23.08	64.12	41.04
14	Manipur	28.64	22.87	41.54	18.67
15	Mizoram	54.86	35.93	71.94	36.01
16	Tripura	79.23	78.19	81.93	3.74
17	Meghalaya	37.49	28.2	71.26	43.06
18	Assam	44.09	38.34	75.18	36.84
19	West Bengal	48.75	39.77	68.17	28.4
20	Jharkhand	53.95	47.39	74.48	27.09
21	Odisha	45.04	41.02	66.58	25.56
22	Chhattisgarh	48.8	46.15	58.2	12.05
23	Madhya Pradesh	46.6	40.75	63.54	22.79
24	Gujarat	57.87	51.29	66.09	14.8
25	Daman & Diu	65.44	67.73	64.83	-2.9
26	Dadra & Nagra Haveli	56.68	39.26	73.06	33.8
27	Maharashtra	68.88	62.95	76.02	13.07
28	Andhra Pradesh	53.1	50.42	58.71	8.29
29	Karnataka	61.11	58.92	64.35	5.43
30	Goa	86.82	84.85	88.05	3.2
31	Lakshadweep	85.28	86.64	84.85	-1.79
32	Kerala	74.24	73.86	74.68	0.82
33	Tamil Nadu	52.52	45.19	60.37	15.18
34	Puducherry	63.96	61.81	64.95	3.14
35	Andaman & Nicobar	89.28	90.01	88.02	-1.99
	INDIA	58.69	54.43	67.77	13.34

Source: The Office of the Registrar General & Census Commissioner, India.

*Excluding institutional households.

Annexure - 8

GROSS STATE DOMESTIC PRODUCT (GSDP) AT MARKET PRICE BY INDUSTRY OF ORIGIN FROM
PERIOD 2016-17 to 2020-21 (Q) AT CURRENT PRICES (₹ in lakh)

SI No.	Industry	2016-17	2017-18	2018-19	2019-20 (P)	2020-21(Q)
1.	Agriculture, forestry and fishing	428053	440528	444929	453646	496003
1.1	Crops	185372	215191	200768	189443	217724
1.2	Livestock	21982	28547	27517	29367	30218
1.3	Forestry and Logging	73428	45974	65509	70229	76144
1.4	Fishing and Aquaculture	147271	150816	151136	164607	171917
2.	Mining and Quarrying	123659	100983	10107	8596	7675
	Primary Sector	551712	541511	455036	462242	503678
3.	Manufacturing	2475168	2554330	2708429	2643511	2587309
4.	Electricity, Gas, Water Supply & Other Utility Services	346400	464343	553962	634550	726583
5.	Construction	189936	223159	232678	234421	234210
	Secondary Sector	3011505	3241832	3495068	3512482	3548102
6.	Trade, Repair, Hotels and Restaurants	425891	466945	566902	601698	642874
6.1	Trade & Repair Services	380274	414767	506675	539862	578208
6.2	Hotels & Restaurants	45617	52178	60227	61836	64667
7.	Transport, Storage, Communication & Services related to Broadcasting	256576	254092	236147	274736	287988
7.1	Railways	24822	24201	25754	25529	25306
7.2	Transport by means other than Railways	181669	180832	158225	190924	196440
7.2.1	Road transport	45926	49034	59382	62425	65646
7.2.2	Water transport	28306	27413	23569	25244	27140
7.2.3	Air transport	57529	55697	31257	52621	52621
7.2.4	Services incidental to transport	49907	48690	44018	50634	51033
7.3	Storage	584	297	441	473	507
7.4	Communication & services related to broadcasting	49501	48761	51728	57810	65736
8.	Financial services	235854	273803	251363	262796	274749
9.	Real estate, ownership of dwelling & professional services	498838	536451	548272	615155	697464
10.	Public administration	428958	513458	534077	591078	654432
11.	Other services	272494	317441	355361	410667	461296
	Tertiary Sector	2118611	2362190	2492122	2756130	3018803
12.	Total GSVA at basic prices	5681827	6145532	6442227	6730854	7070584
13.	Taxes on Products	656465	815977	769635	785284	805012
14.	Subsidies on products	40661	26304	26528	33301	41803
15.	Gross State Domestic Product	6297631	6935205	7185334	7482837	7833792
16.	Population ('00)	15160	15270	15360	15450	15530
17.	Per Capita GSDP (₹)	415411	454172	467795	484326	504430

NOTE : 'P' for Provisional Estimates & 'Q' for Quick Estimates

Source: Directorate of Planning, Statistics & Evaluation, Porvorim

Annexure-9

GROSS STATE DOMESTIC PRODUCT (GSDP) AT MARKET PRICE BY INDUSTRY OF ORIGIN FROM
PERIOD 2016-17 to 2020-21 (Q) AT CONSTANT PRICES Base year 2011-12 (₹ in lakh)

SI No.	Industry	2016-17	2017-18	2018-19	2019-20 (P)	2020-21 (Q)
1.	Agriculture, forestry and fishing	242740	249795	264205	245831	251062
1.1	Crops	110603	109655	111557	101055	101784
1.2	Livestock	15685	18299	18380	19420	19335
1.3	Forestry and Logging	34820	35546	52737	52995	53839
1.4	Fishing and Aquaculture	81631	86295	81531	72361	76105
2.	Mining and Quarrying	167889	148986	6528	6643	7323
	Primary Sector	410628	398781	270732	252474	258385
3.	Manufacturing	2154899	2209782	2291742	2187389	2094508
4.	Electricity, Gas, Water Supply & Other Utility Services	325679	321597	382401	414958	453115
5.	Construction	166354	184109	180973	174085	165704
	Secondary Sector	2646932	2715488	2855117	2776432	2713328
6.	Trade, Repair, Hotels and Restaurants	314039	293828	380558	387869	397784
6.1	Trade & Repair Services	280375	260949	340031	347879	357616
6.2	Hotels & Restaurants	33664	32880	40527	39990	40169
7.	Transport, Storage, Communication & Services related to Broadcasting	192876	180262	151459	176545	180402
7.1	Railways	18547	18296	19050	17659	16370
7.2	Transport by means other than Railways	133163	122744	91897	115226	116813
7.2.1	Road transport	28599	25730	26516	26441	26361
7.2.2	Water transport	23306	21695	18052	19276	20661
7.2.3	Air transport	47366	44079	23940	40182	40060
7.2.4	Services incidental to transport	33892	31241	23389	29327	29731
7.3	Storage	442	220	323	337	351
7.4	Communication & services related to broadcasting	40724	39002	40188	43323	46868
8.	Financial services	219154	236604	200795	198376	195986
9.	Real estate, ownership of dwelling & professional services	383003	400292	394346	423587	458792
10.	Public administration	319397	372793	379046	408080	439480
11.	Other services	204842	228285	242618	266839	285900
	Tertiary Sector	1633311	1712064	1748821	1861297	1958343
12.	Total GSVA at basic prices	4690872	4826333	4874671	4890203	4930056
13.	Taxes on Products	467622	459594	451703	443948	494803
14.	Subsidies on products	33569	20658	20073	24194	28874
15.	Gross State Domestic Product	5124924	5265269	5306301	5309957	5395986
16.	Population ('00)	15160	15270	15360	15470	15530
17.	Per Capita GSDP (₹)	338056	344811	345462	343687	347456

NOTE : 'P' for Provisional Estimates & 'Q' for Quick Estimates

Source: Directorate of Planning, Statistics & Evaluation, Porvorim

Annexure-10

SECTOR WISE % DISTRIBUTION OF GROSS STATE VALUE ADDITION (GSVA) AT MARKET PRICE BY
INDUSTRY OF ORIGIN FROM PERIOD 2016-17 to 2020-21 (Q) AT CURRENT PRICES
(in percent)

Sl No.	Industry	2016-17	2017-18	2018-19	2019-20 (P)	2020-21 (Q)
1.	Agriculture, forestry and fishing	7.53	7.17	6.91	6.74	7.02
1.1	Crops	3.26	3.50	3.12	2.81	3.08
1.2	Livestock	0.39	0.46	0.43	0.44	0.43
1.3	Forestry and Logging	1.29	0.75	1.02	1.04	1.08
1.4	Fishing and Aquaculture	2.59	2.45	2.35	2.45	2.43
2.	Mining and Quarrying	2.18	1.64	0.16	0.13	0.11
	Primary Sector	9.71	8.81	7.06	6.87	7.12
3.	Manufacturing	43.56	41.56	42.04	39.27	36.59
4.	Electricity, Gas, Water Supply & Other Utility Services	6.10	7.56	8.60	9.43	10.28
5.	Construction	3.34	3.63	3.61	3.48	3.31
	Secondary Sector	53.00	52.75	54.25	52.18	50.18
6.	Trade, Repair, Hotels and Restaurants	7.50	7.60	8.80	8.94	9.09
6.1	Trade & Repair Services	6.69	6.75	7.86	8.02	8.18
6.2	Hotels & Restaurants	0.80	0.85	0.93	0.92	0.91
7.	Transport, Storage, Communication & Services related to Broadcasting	4.52	4.13	3.67	4.08	4.07
7.1	Railways	0.44	0.39	0.40	0.38	0.36
7.2	Transport by means other than Railways	3.20	2.94	2.46	2.84	2.78
7.2.1	Road transport	0.81	0.80	0.92	0.93	0.93
7.2.2	Water transport	0.50	0.45	0.37	0.38	0.38
7.2.3	Air transport	1.01	0.91	0.49	0.78	0.74
7.2.4	Services incidental to transport	0.88	0.79	0.68	0.75	0.72
7.3	Storage	0.01	0.00	0.01	0.01	0.01
7.4	Communication & services related to broadcasting	0.87	0.79	0.80	0.86	0.93
8.	Financial services	4.15	4.46	3.90	3.90	3.89
9.	Real estate, ownership of dwelling & professional services	8.78	8.73	8.51	9.14	9.86
10.	Public administration	7.55	8.35	8.29	8.78	9.26
11.	Other services	4.80	5.17	5.52	6.10	6.52
	Tertiary Sector	37.29	38.44	38.68	40.95	42.70
12.	Total GSVA at basic prices	100.00	100.00	100.00	100.00	100.00

NOTE : 'P' for Provisional Estimates & 'Q' for Quick Estimates

Source: Directorate of Planning, Statistics & Evaluation, Porvorim

Annexure-11

SECTORWISE % DISTRIBUTION OF GROSS STATE VALUE ADDITION (GSVA) AT MARKET PRICE BY INDUSTRY OF ORIGIN FROM PERIOD 2016-17 to 2020-21 (Q) AT CONSTANT PRICES

(in percent)

Sl No.	Industry	2016-17	2017-18	2018-19	2019-20 (P)	2020-21(Q)
1.	Agriculture, forestry and fishing	5.17	5.18	5.42	5.03	5.09
1.1	Crops	2.36	2.27	2.29	2.07	2.06
1.2	Livestock	0.33	0.38	0.38	0.40	0.39
1.3	Forestry and Logging	0.74	0.74	1.08	1.08	1.09
1.4	Fishing and Aquaculture	1.74	1.79	1.67	1.48	1.54
2.	Mining and Quarrying	3.58	3.09	0.13	0.14	0.15
	Primary Sector	8.75	8.26	5.55	5.16	5.24
3.	Manufacturing	45.94	45.79	47.01	44.73	42.48
4.	Electricity, Gas, Water Supply & Other Utility Services	6.94	6.66	7.84	8.49	9.19
5.	Construction	3.55	3.81	3.71	3.56	3.36
	Secondary Sector	56.43	56.26	58.57	56.78	55.04
6.	Trade, Repair, Hotels and Restaurants	6.69	6.09	7.81	7.93	8.07
6.1	Trade & Repair Services	5.98	5.41	6.98	7.11	7.25
6.2	Hotels & Restaurants	0.72	0.68	0.83	0.82	0.81
7.	Transport, Storage, Communication & Services related to Broadcasting	4.11	3.73	3.11	3.61	3.66
7.1	Railways	0.40	0.38	0.39	0.36	0.33
7.2	Transport by means other than Railways	2.84	2.54	1.89	2.36	2.37
7.2.1	Road transport	0.61	0.53	0.54	0.54	0.53
7.2.2	Water transport	0.50	0.45	0.37	0.39	0.42
7.2.3	Air transport	1.01	0.91	0.49	0.82	0.81
7.2.4	Services incidental to transport	0.72	0.65	0.48	0.60	0.60
7.3	Storage	0.01	0.00	0.01	0.01	0.01
7.4	Communication & services related to broadcasting	0.87	0.81	0.82	0.89	0.95
8.	Financial services	4.67	4.90	4.12	4.06	3.98
9.	Real estate, ownership of dwelling & professional services	8.16	8.29	8.09	8.66	9.31
10.	Public administration	6.81	7.72	7.78	8.34	8.91
11.	Other services	4.37	4.73	4.98	5.46	5.80
	Tertiary Sector	34.82	35.47	35.88	38.06	39.72
12.	Total GSVA at basic prices	100.00	100.00	100.00	100.00	100.00

NOTE : 'P' for Provisional Estimates & 'Q' for Quick Estimates

Source: Directorate of Planning, Statistics & Evaluation, Porvorum

Annexure-12

% GROWTH OVER THE PREVIOUS YEAR GROSS STATE DOMESTIC PRODUCT (GSDP) AT MARKET PRICE BY INDUSTRY OF ORIGIN FROM PERIOD 2016-17 to 2020-21 (Q) AT CURRENT PRICES

(in percent)

SI No.	Industry	2016-17	2017-18	2018-19	2019-20 (P)	2020-21 (Q)
1.	Agriculture, forestry and fishing	21.89	2.91	1.00	1.96	9.34
1.1	Crops	17.49	16.09	-6.70	-5.64	14.93
1.2	Livestock	-6.55	29.86	-3.61	6.72	2.90
1.3	Forestry and Logging	181.18	-37.39	42.49	7.21	8.42
1.4	Fishing and Aquaculture	2.43	2.41	0.21	8.91	4.44
2.	Mining and Quarrying	291.73	-18.34	-89.99	-14.95	-10.71
	Primary Sector	44.14	-1.85	-15.97	1.58	8.96
3.	Manufacturing	10.16	3.20	6.03	-2.40	-2.13
4.	Electricity, Gas, Water Supply & Other Utility Services	29.52	34.05	19.30	14.55	14.50
5.	Construction	-6.31	17.49	4.27	0.75	-0.09
	Secondary Sector	10.84	7.65	7.81	0.50	1.01
6.	Trade, Repair, Hotels and Restaurants	18.14	9.64	21.41	6.14	6.84
6.1	Trade & Repair Services	18.80	9.07	22.16	6.55	7.10
6.2	Hotels & Restaurants	12.92	14.38	15.42	2.67	4.58
7.	Transport, Storage, Communication & Services related to Broadcasting	30.15	-0.97	-7.06	16.34	4.82
7.1	Railways	3.65	-2.50	6.42	-0.87	-0.87
7.2	Transport by means other than Railways	45.11	-0.46	-12.50	20.67	2.89
7.2.1	Road transport	0.16	6.77	21.10	5.12	5.16
7.2.2	Water transport	66.40	-3.16	-14.02	7.11	7.51
7.2.3	Air transport	17.76	-3.19	-43.88	68.35	0.00
7.2.4	Services incidental to transport	270.27	-2.44	-9.60	15.03	0.79
7.3	Storage	62.81	-49.10	48.31	7.28	7.27
7.4	Communication & services related to broadcasting	3.91	-1.49	6.08	11.76	13.71
8.	Financial services	-8.64	16.09	-8.20	4.55	4.55
9.	Real estate, ownership of dwelling & professional services	13.44	7.54	2.20	12.20	13.38
10.	Public administration	19.10	19.70	4.02	10.67	10.72
11.	Other services	13.80	16.49	11.95	15.56	12.33
	Tertiary Sector	14.20	11.50	5.50	10.59	9.53
12.	Total GSVA at basic prices	14.67	8.16	4.83	4.48	5.05
13.	Taxes on Products	10.26	24.30	-5.68	2.03	2.51
14.	Subsidies on products	-9.51	-35.31	0.85	25.53	25.53
15.	Gross State Domestic Product (At Current Prices)	14.39	10.12	3.61	4.14	4.69
16.	Population ('00)					
17.	Per Capita GSDP (₹)	13.56	9.33	3.00	3.53	4.15

NOTE : 'P' for Provisional Estimates & 'Q' for Quick Estimates

Source: Directorate of Planning, Statistics & Evaluation, Porvorim

Annexure-13

% GROWTH OVER THE PREVIOUS YEAR GROSS STATE DOMESTIC PRODUCT (GSDP) AT MARKET PRICE BY INDUSTRY OF ORIGIN FROM PERIOD 2016-17 to 2020-21 (Q) AT CONSTANT PRICES
Base year 2011-12

(In Percent)

Sl No.	Industry	2016-17	2017-18	2018-19	2019-20 (P)	2020-21 (Q)
1.	Agriculture, forestry and fishing	16.26	2.91	5.77	-6.95	2.13
1.1	Crops	7.38	-0.86	1.73	-9.41	0.72
1.2	Livestock	-7.11	16.66	0.44	5.66	-0.43
1.3	Forestry and Logging	147.81	2.09	48.36	0.49	1.59
1.4	Fishing and Aquaculture	9.05	5.71	-5.52	-11.25	5.17
2.	Mining and Quarrying	362.78	-11.26	-95.62	1.77	10.23
	Primary Sector	67.55	-2.89	-32.11	-6.74	2.34
3.	Manufacturing	8.21	2.55	3.71	-4.55	-4.25
4.	Electricity, Gas, Water Supply & Other Utility Services	59.52	-1.25	18.91	8.51	9.20
5.	Construction	-8.18	10.67	-1.70	-3.81	-4.81
	Secondary Sector	11.37	2.59	5.14	-2.76	-2.27
6.	Trade, Repair, Hotels and Restaurants	16.32	-6.44	29.52	1.92	2.56
6.1	Trade & Repair Services	16.97	-6.93	30.31	2.31	2.80
6.2	Hotels & Restaurants	11.20	-2.33	23.26	-1.32	0.45
7.	Transport, Storage, Communication & Services related to Broadcasting	9.57	-6.54	-15.98	16.56	2.18
7.1	Railways	15.72	-1.35	4.12	-7.30	-7.30
7.2	Transport by means other than Railways	11.57	-7.82	-25.13	25.39	1.38
7.2.1	Road transport	-2.82	-10.03	3.05	-0.28	-0.30
7.2.2	Water transport	61.57	-6.91	-16.79	6.78	7.18
7.2.3	Air transport	4.97	-6.94	-45.69	67.84	-0.30
7.2.4	Services incidental to transport	11.57	-7.82	-25.13	25.39	1.38
7.3	Storage	55.10	-50.18	46.84	4.21	4.22
7.4	Communication & services related to broadcasting	0.90	-4.23	3.04	7.80	8.18
8.	Financial services	-8.41	7.96	-15.13	-1.20	-1.20
9.	Real estate, ownership of dwelling & professional services	7.28	4.51	-1.49	7.42	8.31
10.	Public administration	6.47	16.72	1.68	7.66	7.69
11.	Other services	8.67	11.44	6.28	9.98	7.14
	Tertiary Sector	6.70	4.82	2.15	6.43	5.21
12.	Total GSVA at basic prices	12.96	2.89	1.00	0.32	0.81
13.	Taxes on Products	-5.37	-1.72	-1.72	-1.72	11.46
14.	Subsidies on products	-10.85	-38.46	-2.83	20.53	19.34
15.	Gross State Domestic Product	11.19	2.74	0.78	0.07	1.62
16.	Population ('00)					
17.	Per Capita GSDP (₹)	10.38	2.00	0.19	-0.51	1.10

NOTE : 'P' for Provisional Estimates & 'Q' for Quick Estimates

Source: Directorate of Planning, Statistics & Evaluation, Porvorim

Annexure-14

NET STATE DOMESTIC PRODUCT (NSDP) AT MARKET PRICE BY INDUSTRY OF ORIGIN FROM PERIOD 2016-17 to 2020-21 (Q) AT CURRENT PRICES

(₹ in lakh)

SI No.	Industry	2016-17	2017-18	2018-19	2019-20 (P)	2020-21(Q)
1.	Agriculture, forestry and fishing	400936	415347	419401	425251	467309
1.1	Crops	172349	201708	186868	174169	202573
1.2	Livestock	21725	28238	27201	29048	29675
1.3	Forestry and Logging	71595	45594	64909	69542	75525
1.4	Fishing and Aquaculture	135267	139807	140424	152492	159536
2.	Mining and Quarrying	103836	85358	8524	7124	6143
	Primary Sector	504772	500705	427925	432375	473452
3.	Manufacturing	2351719	2419662	2559577	2484027	2427825
4.	Electricity, Gas, Water Supply & Other Utility Services	230725	320618	376698	437881	525405
5.	Construction	178287	209818	217266	217027	216482
	Secondary Sector	2760732	2950098	3153540	3138935	3169712
6.	Trade, Repair, Hotels and Restaurants	407284	428587	541136	573633	614188
6.1	Trade & Repair Services	365237	381360	485518	516723	554446
6.2	Hotels & Restaurants	42047	47227	55618	56910	59743
7.	Transport, Storage, Communication & Services related to Broadcasting	203105	194620	173311	198480	211818
7.1	Railways	20437	19652	20683	20009	19786
7.2	Transport by means other than Railways	145013	140876	118747	141300	146680
7.2.1	Road transport	33534	32669	41234	41744	44970
7.2.2	Water transport	19623	19617	18285	20521	22422
7.2.3	Air transport	48473	46780	22076	36394	36394
7.2.4	Services incidental to transport	43382	41812	37153	42641	42894
7.3	Storage	491	250	402	425	464
7.4	Communication & services related to broadcasting	37164	33841	33480	36746	44889
8.	Financial services	230650	267892	245642	256638	268591
9.	Real estate, ownership of dwelling & professional services	418147	437020	446343	500348	582650
10.	Public administration	347080	421017	440970	493134	552171
11.	Other services	257352	297656	336298	390044	440522
	Tertiary Sector	1863618	2046792	2183700	2412277	2669940
12.	Total NSVA at basic prices	5129121	5497594	5765166	5983587	6313105
13.	Taxes on Products	656465	815977	769635	785284	805012
14.	Subsidies on products	40661	26304	26528	33301	41507
15.	Net State Domestic Product	5744925	6287267	6508273	6735570	7076610
16.	Population ('00)	15160	15270	15360	15450	15530
17.	Per Capita NSDP (₹)	378953	411740	423716	435959	455674

NOTE : 'P' for Provisional Estimates & 'Q' for Quick Estimates

Source: Directorate of Planning, Statistics & Evaluation, Porvorim

Annexure-15

NET STATE DOMESTIC PRODUCT (NSDP) AT MARKET PRICE BY INDUSTRY OF ORIGIN FROM PERIOD
2016-17 to 2020-21 (Q) AT CONSTANT PRICES Base year 2011-12

(₹ in lakh)

SI No.	Industry	2016-17	2017-18	2018-19	2019-20 (P)	2020-21(Q)
1.	Agriculture, forestry and fishing	220777	229894	244639	224768	229733
1.1	Crops	101136	100138	102020	90977	91784
1.2	Livestock	15459	18044	18136	19174	18917
1.3	Forestry and Logging	33238	35236	52275	52470	53366
1.4	Fishing and Aquaculture	70943	76476	72208	62147	65667
2.	Mining and Quarrying	151569	136447	5298	5530	6165
	Primary Sector	372345	366341	249936	230298	235898
3.	Manufacturing	2044276	2091455	2165206	2053093	1960212
4.	Electricity, Gas, Water Supply & Other Utility Services	222034	195922	232297	248612	282955
5.	Construction	155240	171443	166749	157814	149121
	Secondary Sector	2421550	2458820	2564253	2459519	2392289
6.	Trade, Repair, Hotels and Restaurants	297559	261291	359702	365352	374768
6.1	Trade & Repair Services	267050	232598	322882	329301	338537
6.2	Hotels & Restaurants	30509	28694	36820	36051	36232
7.	Transport, Storage, Communication & Services related to Broadcasting	145233	128457	98237	113284	117214
7.1	Railways	14783	14518	15013	13264	11975
7.2	Transport by means other than Railways	99900	87367	57718	73830	75307
7.2.1	Road transport	17236	11079	10547	9127	9052
7.2.2	Water transport	15329	14714	13414	15321	16710
7.2.3	Air transport	39131	36179	15985	26568	26446
7.2.4	Services incidental to transport	28204	25396	17772	22814	23099
7.3	Storage	359	180	292	299	317
7.4	Communication & services related to broadcasting	30191	26392	25213	25891	29615
8.	Financial services	214601	231565	196102	193338	190948
9.	Real estate, ownership of dwelling & professional services	315223	319675	315609	334063	369263
10.	Public administration	245016	291228	299851	326181	353971
11.	Other services	191488	211372	227133	250171	269109
	Tertiary Sector	1409120	1443588	1496633	1582390	1675272
12.	Total NSVA at basic prices	4203016	4268749	4310823	4272207	4303459
13.	Taxes on Products	467622	459594	451703	443948	494803
14.	Subsidies on products	33569	20658	20073	24194	28874
15.	Net State Domestic Product	4637068	4707685	4742453	4691961	4769389
16.	Population ('00)	15160	15270	15360	15450	15530
17.	Per Capita NSDP (₹)	305875	308296	308753	303687	307108

NOTE : 'P' for Provisional Estimates & 'Q' for Quick Estimates

Source: Directorate of Planning, Statistics & Evaluation, Porvorim

Annexure-16

SECTORWISE % DISTRIBUTION OF NET STATE VALUE ADDITION (NSVA) AT MARKET PRICE BY
INDUSTRY OF ORIGIN FROM PERIOD 2016-17 to 2020-21 (Q) AT CURRENT PRICES

(in percent)

SI No.	Industry	2016-17	2017-18	2018-19	2019-20 (P)	2020-21(Q)
1.	Agriculture, forestry and fishing	7.82	7.56	7.27	7.11	7.40
1.1	Crops	3.36	3.67	3.24	2.91	3.21
1.2	Livestock	0.42	0.51	0.47	0.49	0.47
1.3	Forestry and Logging	1.40	0.83	1.13	1.16	1.20
1.4	Fishing and Aquaculture	2.64	2.54	2.44	2.55	2.53
2.	Mining and Quarrying	2.02	1.55	0.15	0.12	0.10
	Primary Sector	9.84	9.11	7.42	7.23	7.50
3.	Manufacturing	45.85	44.01	44.40	41.51	38.46
4.	Electricity, Gas, Water Supply & Other Utility Services	4.50	5.83	6.53	7.32	8.32
5.	Construction	3.48	3.82	3.77	3.63	3.43
	Secondary Sector	53.82	53.66	54.70	52.46	50.21
6.	Trade, Repair, Hotels and Restaurants	7.94	7.80	9.39	9.59	9.73
6.1	Trade & Repair Services	7.12	6.94	8.42	8.64	8.78
6.2	Hotels & Restaurants	0.82	0.86	0.96	0.95	0.95
7.	Transport, Storage, Communication & Services related to Broadcasting	3.96	3.54	3.01	3.32	3.36
7.1	Railways	0.40	0.36	0.36	0.33	0.31
7.2	Transport by means other than Railways	2.83	2.56	2.06	2.36	2.32
7.2.1	Road transport	0.65	0.59	0.72	0.70	0.71
7.2.2	Water transport	0.38	0.36	0.32	0.34	0.36
7.2.3	Air transport	0.95	0.85	0.38	0.61	0.58
7.2.4	Services incidental to transport	0.85	0.76	0.64	0.71	0.68
7.3	Storage	0.01	0.00	0.01	0.01	0.01
7.4	Communication & services related to broadcasting	0.72	0.62	0.58	0.61	0.71
8.	Financial services	4.50	4.87	4.26	4.29	4.25
9.	Real estate, ownership of dwelling & professional services	8.15	7.95	7.74	8.36	9.23
10.	Public administration	6.77	7.66	7.65	8.24	8.75
11.	Other services	5.02	5.41	5.83	6.52	6.98
	Tertiary Sector	36.33	37.23	37.88	40.31	42.29
12.	Total NSVA at basic prices	100.00	100.00	100.00	100.00	100.00

NOTE : 'P' for Provisional Estimates & 'Q' for Quick Estimates

Source: Directorate of Planning, Statistics & Evaluation, Porvorim

Annexure-17

SECTORWISE % DISTRIBUTION OF NET STATE VALUE ADDITION (NSVA) AT MARKET PRICE BY INDUSTRY OF ORIGIN FROM PERIOD 2016-17 to 2020-21 (Q) AT CONSTANT PRICES Base year 2011-12 (in percent)

SI No.	Industry	2016-17	2017-18	2018-19	2019-20 (P)	2020-21(Q)
1.	Agriculture, forestry and fishing	5.25	5.39	5.67	5.26	5.34
1.1	Crops	2.41	2.35	2.37	2.13	2.13
1.2	Livestock	0.37	0.42	0.42	0.45	0.44
1.3	Forestry and Logging	0.79	0.83	1.21	1.23	1.24
1.4	Fishing and Aquaculture	1.69	1.79	1.68	1.45	1.53
2.	Mining and Quarrying	3.61	3.20	0.12	0.13	0.14
	Primary Sector	8.86	8.58	5.80	5.39	5.48
3.	Manufacturing	48.64	48.99	50.23	48.06	45.55
4.	Electricity, Gas, Water Supply & Other Utility Services	5.28	4.59	5.39	5.82	6.58
5.	Construction	3.69	4.02	3.87	3.69	3.47
	Secondary Sector	57.61	57.60	59.48	57.57	55.59
6.	Trade, Repair, Hotels and Restaurants	7.08	6.12	8.34	8.55	8.71
6.1	Trade & Repair Services	6.35	5.45	7.49	7.71	7.87
6.2	Hotels & Restaurants	0.73	0.67	0.85	0.84	0.84
7.	Transport, Storage, Communication & Services related to Broadcasting	3.46	3.01	2.28	2.65	2.72
7.1	Railways	0.35	0.34	0.35	0.31	0.28
7.2	Transport by means other than Railways	2.38	2.05	1.34	1.73	1.75
7.2.1	Road transport	0.41	0.26	0.24	0.21	0.21
7.2.2	Water transport	0.36	0.34	0.31	0.36	0.39
7.2.3	Air transport	0.93	0.85	0.37	0.62	0.61
7.2.4	Services incidental to transport	0.67	0.59	0.41	0.53	0.54
7.3	Storage	0.01	0.00	0.01	0.01	0.01
7.4	Communication & services related to broadcasting	0.72	0.62	0.58	0.61	0.69
8.	Financial services	5.11	5.42	4.55	4.53	4.44
9.	Real estate, ownership of dwelling & professional services	7.50	7.49	7.32	7.82	8.58
10.	Public administration	5.83	6.82	6.96	7.63	8.23
11.	Other services	4.56	4.95	5.27	5.86	6.25
	Tertiary Sector	33.53	33.82	34.72	37.04	38.93
12.	Total NSVA at basic prices	100.00	100.00	100.00	100.00	100.00

NOTE : 'P' for Provisional Estimates & 'Q' for Quick Estimates

Source: Directorate of Planning, Statistics & Evaluation, Porvorim

Annexure-18

% GROWTH OVER THE PREVIOUS YEAR NET STATE DOMESTIC PRODUCT (NSDP) AT MARKET PRICE
BY INDUSTRY OF ORIGIN FROM PERIOD 2016-17 to 2020-21 (Q) AT CURRENT PRICES
(in percent)

SI No.	Industry	2016-17	2017-18	2018-19	2019-20 (P)	2020-21 (Q)
1.	Agriculture, forestry and fishing	23.24	3.59	0.98	1.39	9.89
1.1	Crops	18.60	17.03	-7.36	-6.80	16.31
1.2	Livestock	-6.52	29.98	-3.67	6.79	2.16
1.3	Forestry and Logging	176.75	-36.32	42.36	7.14	8.60
1.4	Fishing and Aquaculture	3.33	3.36	0.44	8.59	4.62
2.	Mining and Quarrying	293.11	-17.80	-90.01	-16.43	-13.77
	Primary Sector	43.50	-0.81	-14.54	1.04	9.50
3.	Manufacturing	10.53	2.89	5.78	-2.95	-2.26
4.	Electricity, Gas, Water Supply & Other Utility Services	28.11	38.96	17.49	16.24	19.99
5.	Construction	-6.50	17.69	3.55	-0.11	-0.25
	Secondary Sector	10.50	6.86	6.90	-0.46	0.98
6.	Trade, Repair, Hotels and Restaurants	18.33	5.23	26.26	6.01	7.07
6.1	Trade & Repair Services	18.94	4.41	27.31	6.43	7.30
6.2	Hotels & Restaurants	13.30	12.32	17.77	2.32	4.98
7.	Transport, Storage, Communication & Services related to Broadcasting	31.25	-4.18	-10.95	14.52	6.72
7.1	Railways	1.98	-3.84	5.25	-3.26	-1.11
7.2	Transport by means other than Railways	48.58	-2.85	-15.71	18.99	3.81
7.2.1	Road transport	-4.74	-2.58	26.22	1.24	7.73
7.2.2	Water transport	89.83	-0.03	-6.79	12.23	9.26
7.2.3	Air transport	20.39	-3.49	-52.81	64.86	0.00
7.2.4	Services incidental to transport	267.72	-3.62	-11.14	14.77	0.59
7.3	Storage	62.74	-49.03	60.59	5.74	9.27
7.4	Communication & services related to broadcasting	0.99	-8.94	-1.07	9.76	22.16
8.	Financial services	-8.80	16.15	-8.31	4.48	4.66
9.	Real estate, ownership of dwelling & professional services	13.34	4.51	2.13	12.10	16.45
10.	Public administration	20.27	21.30	4.74	11.83	11.97
11.	Other services	14.17	15.66	12.98	15.98	12.94
	Tertiary Sector	14.00	9.83	6.69	10.47	10.68
12.	Total NSVA at basic prices	14.36	7.18	4.87	3.79	5.51
13.	Taxes on Products	10.26	24.30	-5.68	2.03	2.51
14.	Subsidies on products	-9.51	-35.31	0.85	25.53	24.64
15.	Net State Domestic Product	14.09	9.44	3.52	3.49	5.06
16.	Population ('00)					
17.	Per Capita NSDP (□)	13.26	8.65	2.91	2.89	4.52

NOTE : 'P' for Provisional Estimates & 'Q' for Quick Estimates

Source: Directorate of Planning, Statistics & Evaluation, Porvorim

Annexure-19

% GROWTH OVER THE PREVIOUS YEAR NET STATE DOMESTIC PRODUCT (NSDP) AT MARKET PRICE
BY INDUSTRY OF ORIGIN FROM PERIOD 2015-16 to 2019-20 (Q) AT CONSTANT PRICES

Base year 2011-12

(in percent)

SI No.	Industry	2016-17	2017-18	2018-19	2019-20 (P)	2020-21(Q)
1.	Agriculture, forestry and fishing	17.65	4.13	6.41	-8.12	2.21
1.1	Crops	8.09	-0.99	1.88	-10.82	0.89
1.2	Livestock	-7.05	16.72	0.51	5.72	-1.34
1.3	Forestry and Logging	140.24	6.01	48.36	0.37	1.71
1.4	Fishing and Aquaculture	11.52	7.80	-5.58	-13.93	5.66
2.	Mining and Quarrying	374.19	-9.98	-96.12	4.39	11.47
	Primary Sector	69.55	-1.61	-31.77	-7.86	2.43
3.	Manufacturing	8.46	2.31	3.53	-5.18	-4.52
4.	Electricity, Gas, Water Supply & Other Utility Services	76.33	-11.76	18.57	7.02	13.81
5.	Construction	-8.65	10.44	-2.74	-5.36	-5.51
	Secondary Sector	11.04	1.54	4.29	-4.08	-2.73
6.	Trade, Repair, Hotels and Restaurants	16.51	-12.19	37.66	1.57	2.58
6.1	Trade & Repair Services	17.10	-12.90	38.82	1.99	2.80
6.2	Hotels & Restaurants	11.61	-5.95	28.32	-2.09	0.50
7.	Transport, Storage, Communication & Services related to Broadcasting	5.38	-11.55	-23.53	15.32	3.47
7.1	Railways	17.07	-1.79	3.41	-11.65	-9.72
7.2	Transport by means other than Railways	6.53	-12.55	-33.94	27.92	2.00
7.2.1	Road transport	-11.60	-35.72	-4.80	-13.46	-0.82
7.2.2	Water transport	87.12	-4.01	-8.84	14.22	9.06
7.2.3	Air transport	5.24	-7.54	-55.82	66.20	-0.46
7.2.4	Services incidental to transport	-2.41	-9.96	-30.02	28.37	1.25
7.3	Storage	53.44	-49.80	62.23	2.27	6.10
7.4	Communication & services related to broadcasting	-3.17	-12.58	-4.47	2.69	14.38
8.	Financial services	-8.56	7.90	-15.31	-1.41	-1.24
9.	Real estate, ownership of dwelling & professional services	6.02	1.41	-1.27	5.85	10.54
10.	Public administration	4.35	18.86	2.96	8.78	8.52
11.	Other services	8.76	10.38	7.46	10.14	7.57
	Tertiary Sector	5.47	2.45	3.67	5.73	5.87
12.	Total NSVA at basic prices	12.49	1.56	0.99	-0.90	0.73
13.	Taxes on Products	-5.37	-1.72	-1.72	-1.72	11.46
14.	Subsidies on products	-10.85	-38.46	-2.83	20.53	19.34
15.	Net Gross State Domestic Product	10.59	1.52	0.74	-1.06	1.65
16.	Population ('00)					
17.	Per Capita NSDP (₹)	9.79	0.79	0.15	-1.64	1.13

NOTE : 'P' for Provisional Estimates & 'Q' for Quick Estimates

Source: Directorate of Planning, Statistics & Evaluation, Porvorim

Annexure-20

Gross State Domestic Product by Sectors at Current Prices

(₹ in lakh)

Year	Gross State Value Added (GSVA)				Taxes	Subsidies	GSDP
	Primary	Secondary	Tertiary	Total			
2016-17	551712	3011505	2118611	5681827	656465	40661	6297631
2017-18	541511	3241832	2362190	6145532	815977	26304	6935205
2018-19	455036	3495068	2492122	6442227	769635	26528	7185334
2019-20(P)	462242	3512482	2756130	6730854	785284	33301	7482837
2020-21(Q)	503678	3548102	3018803	7070584	805012	41803	7833792

Note: Figures from 2016-7 to 2020-21(Q) as per base year 2011-12 P for Provisional Estimates & Q for Quick estimates. GSDP: GSVA + Taxes-Subsidies

Annexure-21

Gross State Domestic Product by Sectors at Constant Prices

(₹ in lakh)

Year	Gross State Value Added (GSVA)				Taxes	Subsidies	GSDP
	Primary	Secondary	Tertiary	Total			
2016-17	410628	2646932	1633311	4690872	467622	33569	5124924
2017-18	398781	2715488	1712064	4826333	459594	20658	5265269
2018-19	270732	2855117	1748821	4874671	451703	20073	5306301
2019-20(P)	252474	2776432	1861297	4890203	443948	24194	5309957
2020-21(Q)	258385	2713328	1958343	4930056	494803	28874	5395986

Note: Figures from 2016-17 to 2020-21(Q) as per base year 2011-12 P for Provisional Estimates & Q for Quick estimates. GSDP: GSVA + Taxes-Subsidies

Source: Directorate of Planning, Statistics & Evaluation, Porvorim

Annexure-22

Net State Domestic Product by Sectors at Current Prices

(₹ in lakh)

Year	Net State Value Added (NSVA)				Taxes	Subsidies	NSDP
	Primary	Secondary	Tertiary	Total			
2016-17	504772	2760732	1863618	5129121	656465	40661	5744925
2017-18	500705	2950098	2046792	5497594	815977	26304	6287267
2018-19	427925	3153540	2183700	5765166	769635	26528	6508273
2019-20 (P)	432375	3138935	2412277	5983587	785284	33301	6735570
2020-21(Q)	473452	3169712	2669940	6313105	805012	41507	7076610

Note: Figures from 2016-17 to 2020-21(Q) as per base year 2011-12 P for Provisional Estimates & Q for Quick estimates. GSDP: GSV + Taxes-Subsidies

Annexure-23

Net State Domestic Product by Sectors at Constant Prices

(₹ in lakh)

Year	Net State Value Added (NSVA)				Taxes	Subsidies	NSDP
	Primary	Secondary	Tertiary	Total			
2016-17	372345	2421550	1409120	4203016	467622	33569	4637068
2017-18	366341	2458820	1443588	4268749	459594	20658	4707685
2018-19	249936	2564253	1496633	4310823	451703	20073	4742453
2019-20(P)	230298	2459519	1582390	4272207	443948	24194	4691961
2020-21(Q)	235898	2392289	1675272	4303459	494803	28874	4769389

Note: Figures from 2016-17 to 2020-21(Q) as per base year 2011-12 P for Provisional Estimates & Q for Quick Estimates. GSDP: GSV + Taxes-Subsidies

Source: Directorate of Planning, Statistics & Evaluation, Porvorim

Annexure – 24

The Performance of Cooperatives Societies from 2019-2021

Particulars	Position as on 31 st March, 2021		
	2019	2020	2021
No. of Coop. Societies	4952	5078	5203
Membership (No. in lakh)	11.77	12.64	14.35
Paid up Share Capital (₹ in crore)	448.23	395.20	549.21
Working Capital (₹ in crore)	8286.59	8692.51	10821.17
Deposits (₹ in crore)	7020.20	7333.51	9161.61
Advance Loans (₹ in crore)	3037.16	2631.35	3744.57
Outstanding Loans (₹ in crores)	4409.03	4607.98	6256.82

Source: Registrar of co-operative societies, Panaji-Goa

Annexure - 25

The category wise Societies as on 31-03-2021

Sr. No.	Type of Cooperative Banks/Societies	No. of Societies
1	Apex Bank Goa State Cooperative Bank	1
2	Urban Co-operative. Banks	6
3	Urban Co-operative Credit Societies	128
4	Salary earners Co-op Credit Societies	268
5	Consumer Co-operative Societies	85
6	Dairy Co-operative Societies	182
7	Farming Co-operative Societies	16
8	Fisheries Co-operative Societies	23
9	Housing Co-operative Societies	2712
10	Industrial Co-operative Societies	29
11	Marketing Co-operative Societies	11
12	Poultry Co-operative Societies	2
13	Processing Co-operative Societies	7
14	Service Co-operative Societies	88
15	Transport Co-operative Societies	4
16	Labour Co-operative Societies	13
17	Panivatap Co-operative Societies	93
18	Sangh& Union Federation	3
19	General Co-operative Societies	32
20	Producers Co-operative Societies	11
21	Self Help Group Coop. Societies	1418
22	Multipurpose Societies	71
	TOTAL	5203

Source: Registrar of co-operative societies, Panaji-Goa

ANNEXURE 26

Marine Fish Production of Goa for the period from 2016 to 2021 (P)

(in tonnes)

Sr. no	Species	Year					
		2016	2017	2018	2019	2020	2021 (P)
1	2	3	4	5	6	7	8
1	Mackerals (Bangdo)	19512	29511	35699	28897	25325	33149
2	Sardines (Tarlo)	33326	38551	23147	10618	6771	1374
3	Cat Fish (Sangot)	738	475	209	1066	511	262
4	Shark fish (Mori)	585	429	971	480	772	1071
5	Seer Fish (Wiswan)	2802	2137	1421	1800	2996	3749
6	Prawns (Sungtam)	6295	9652	6772	5136	6260	5974
7	Pomprets (Paplet)	902	2060	563	1193	1517	4100
8	Cuttle Fish (Manki)	2021	1294	1804	2730	2694	2769
9	Tuna (Bokdo)	7857	8304	8861	8943	9360	12897
10	Ribbon Fish (Balle)	665	775	1349	1682	2201	2343
11	Reef Cod (Gobro)	1146	630	1391	508	350	1009
12	Kowalakowal (Velli)	501	1443	786	451	504	228
13	Golden Anchovy (Kapsale)	277	342	127	144	12	06
14	Silver Belly (Kampi)	1672	3177	4680	5117	6312	7079
15	Soles (Lepo)	3237	1312	2223	1236	1174	1798
16	Silver Bar (Karli)	205	510	209	154	309	377
17	Crabs (Kurlio)	1013	1307	806	805	1761	2125
18	Sciaenoids (Dodiario)	4128	1832	1449	2184	2806	3355
19	Butter Fish (Soundale)	1534	811	719	507	788	790
20	Others	12637	15878	22909	22747	23739	37014
	Total	101053	120430	116095	96398	96162	121469

Source: Directorate of Fisheries

ANNEXURE 27

Inland Fish Production of Goa for the period from 2016 to 2021 (P)
(in tonnes)

	Name of the Fish	Year					
		2016	2017	2018	2019	2020	2021 (P)
1	2	3	4	5	6	7	8
1	Prawns						
a	Big	137	192	239	127	127	175
b	Medium	253	325	222	47	151	138
c	Small	380	429	343	281	351	512
2	Lady Fish	98	180	123	60	129	162
3	Mullets	447	726	632	508	521	524
4	Gerres	103	123	81	41	83	81
5	Lutianus	123	142	185	80	113	97
6	Cat Fish	416	603	570	423	498	408
7	Anchovy	40	6106	63	25	38	48
8	Pearl Spot	249	421	379	330	399	372
9	Betki	93	113	188	65	114	92
10	Milk Fish	20	14	17	3	3	2
11	Megalops	40	31	33	10	19	23
12	Scatophagus	81	59	58	36	70	55
13	Ambasis	229	395	313	279	314	262
14	Crabs	379	557	529	364	529	443
15	Black Water Clamps	264	45	58	99	133	363
16	False Clamps	322	82	89	189	259	60
17	Oysters	74	79	111	210	184	127
18	Green Clamps	37	107	158	96	84	83
19	Lepo	7	1	3	--	13	--
20	Indian Salmon	--	--	--	--	--	--
21	Balle Reddish	--	1	--	5	--	--
22	Sciaenoids	--	--	--	--	--	--
23	Others(Palu)	91	69		--	--	--
24	Others(Vagolem)	--	--	--	--	--	--
25	Others(Leather Jackets)	--	--	--	--	--	--
26	Others	--	--	79	44	39	11
27	Miscellaneous	520	532	547	847	578	964
	Total	4403	5332	5020	4169	4749	5002

Source: Directorate of Fisheries

Annexure - 28**Roads & Bridges**

- Demolishing and Reconstruction of 8.00 mts. 25 span bridge at Surla Sattari in V.P. Dongurli Thane in Sattari Taluka at a cost of ₹ 54.27 lakh.
- Construction of 2 span of 8.00 m bridge on road VL-26 at ch.0200 kms to ch.0.216 kms in V.M.C. Valpoi in Sattari Taluka at a cost of ₹ 188.02 lakh.
- Re-construction of bridge at Palaskata (Maisal) in V.P. Mollem in Sanguem Taluka at a cost of ₹ 625.00 lakh.

State Highways

The following highways were completed during the year 2021-22.

- Strengthening of State Highway No.1 from Ch.28.30kms from Sakhali Bridge to Honda junction of Bicholim taluka at a cost of ₹ 242.00 lakh.
- Construction of road at Sawaribhat and New wada connecting State Highway No.3 at Ch. 7.58 kms & Ch7.80 kms at V.P. Velguem of Bicholim Taluka.at a cost of ₹ 23.82 lakh.
- Improvement and Hot mixing of main road from State Highway No.3 Ambegal Pale of Bicholim Taluka at a cost of ₹135.65 lakh.

Major District Roads

The following works were completed during the year 2021-22.

- Improvement and B.T (with hot mix) to the road from Herald Office to Nikhil Store and Dr. T.B. Cunha Government Secondary School to Edcon Pinto in Campal of Tiswadi Taluka at a cost of ₹ 30.86 lakh.
- Upgradation of MDR-41 from Assolna to Betul of Salcete taluka at a cost of ₹ 316.48 lakh.
- Resurfacing of road MDR-43 from Border and Betalbatim to Utorda Mollar of Salcete taluka at a cost of ₹ 279.76 lakh.
- Hotmixing of road from Sodiem - Siolim (within Municipal Limit) joining NH-17 of Bardez Taluka at a cost of ₹ 44.56 lakh.
- Improvement of road from Kamat House to Ganesh Temple in Marcaim V.P. of Ponda Taluka at a cost of ₹138.61lakh.
- Improvement and widening of Amona junction on MDR-24 leading to Viridi Bridge to V.P. Amona of bicholim Taluka at a cost of ₹ 14.96 lakh.

Rural Roads

The following works have been completed during 2021-22.

- Improvement to the existing PWD roads in various wards of V.P St. Estevam of Tiswadi Taluka at a cost of ₹ 42.79 lakh.
- Construction of footpath with Pavit Tiles from Syndicate bank to Taleigao church of Tiswadi Taluka at a cost of ₹ 71.14 lakh.

- Improvement with resurfacing of internal roads at Machado cove and road from MDR-3 to Rosary school under Taleigao V.P. at a cost of ₹ 98.19 lakh.
- Improvement with hotmixing of roads from Adarsh circle to Home Science college in CCP ward no. 4 of Tiswadi Taluka at a cost of ₹ 64.31 lakh.
- Improvement with resurfacing of road from MDR-3 junction to Odxel village and from Taleigao road to Models building under Taleigao V.P. at a cost of ₹ 57.74 lakh.
- Improvement with hot mixing of roads at Eugene Morod and near Gulmohar behind Syndicate Bank Caranzalem of Tiswadi Taluka at a cost of ₹ 45.68 lakh.
- Improvement with re-surfacing of balance roads at Cardozwaddo, Oitalem, Chincholem, Lourdes waddo and Vodlem Bhat under Taleigao V.P. of Tiswadi Taluka at a cost of ₹ 52.11 lakh.
- Improvement with resurfacing of internal roads at Kevnem and Aivao under Taleigao V.P. at a cost of ₹ 162.56 lakh.
- Improvement and re-surfacing of road from Miramar circle to Caranzalem fish market via Adarsh circle of Tiswadi Taluka at a cost of ₹ 206.49 lakh.
- Improvement of village roads in the jurisdiction of V.P. Velim at a cost of ₹ 333.00 lakh.
- Improvement and Hotmixing of road Belavista to Tembi, other internal roads, left out roads at Ganaponga in V.P. Raia at a cost of ₹ 187.44 lakh.
- Improvement and hotmixing of road from SH-5 till Camurlim boundary and other connecting roads in V.P. Camurlim at a cost of ₹ 237.49 lakh.
- Improvement and hotmixing of roads at Vetnem, Gandhi road, Sonsodo to Rachol Arch, Belavista to Curtorim and other connecting roads in V.P. Raia at a cost of ₹ 208.97 lakh.
- Strengthening and hot mixing of internal roads at housing board Curtorim at a cost of ₹ 324.93 lakh.
- Improvement and Resurfacing of left out roads by providing hot mix Carpet in Housing Board Area at Curtorim at a cost of ₹ 138.69 lakh.
- Improvement and Hot mixing of road SH-5 till Camurlim boundary & Other connecting roads in V.P. Camurlim at a cost of ₹ 296.86 lakh.
- Improvement of roads and construction of gutters in V.P. Curtorim at a cost of ₹ 374.03 lakh.
- Access to the play-ground with provision of drainages at Parpatiwada in V.P. Borim of Ponda Taluka at a cost of ₹ 49.73 lakh.
- Wid. & prov. Hotmix carpet on State Highway-8 from Chandor Cotta bridge to Savio Hendric home in V.P Chandor at a cost of ₹ 252.94 lakh.
- Widening and Providing hotmix carpet left out roads in V.P Ambaulim at a cost of ₹ 164.97 lakh.
- Improvement and providing HMA to left out roads in V.P Guirdolim at a cost of ₹ 372.30 lakh. Resurfacing of internal road in V.P Majorda, Uttorda ,Calata at a cost of ₹ 255.49 lakh.

- Improvement of internal roads in Loutolim, in V.P Loutolim at a cost of ₹ 242.96 lakh.
- Hot mixing of internal roads in V.P. Nagoa at a cost of ₹ 112.59 lakh.
- Hotmixing of road from Domnic house Pockwaddo to Coconut Groove Hotel Ranwaddo V.P Betabatim at a cost of ₹ 28.88 lakh.
- Hotmixing of road from Manmohan shop Pockwaddo to Lover's Beach to Ranvaddo in V.P Betabatim at a cost of ₹ 99.02 lakh.
- Construction of protection wall near Jesus's house at Buri in V.P Balli at a cost of ₹ 94.93 lakh.
- Development of work around Macazana Church in V.P. Macazana at a cost of ₹ 77.32 lakh.
- Construction of retaining wall to damage road side at Dorvoto near Rachol seminari at a cost of ₹ 29.41 lakh.
- Construction of footpath & drainage in left out stretches at Saibini Bhat at a cost of ₹ 48.12 lakh.
- Resurfacing & improvement of drainage system at Sasmollem Baina main & internal left out roads at a cost of ₹ 79.91 lakh.
- Hotmixing of internal road & drainage improvement at Patrong Baina at a cost of ₹.75.03 lakh.
- Resurfacing & construction of drainage along internal roads at Katem Baina at a cost of ₹.42.59 lakh.
- Improvement of footpath & gutters at left out areas in Ward No. 8 & 9 of Mormugao taluka at a cost of ₹.83.65 lakh.
- Resurfacing of road near Sunaina Hotel leading to Jawaharlal Nehru Stadium including branch roads in Fatorda at a cost of ₹178.03 lakh.
- Providing hotmix to various roads near Santosh Garage in Fatorda at a cost of ₹ 233.05 lakh.
- Resurfacing of left out roads and construction of drain in Ward No. 10 and 11 at Fatorda at a cost of ₹ 247.39 lakh.
- Resurfacing of various roads in Vaddie, Mondear, Mazilwaddo, Adsulim, Pulwaddo, Pedda and Rebod in V.P. Cana-Benaulim at a cost of ₹ 667.70 lakh.
- Resurfacing of left out roads and construction of drains in Ward No.4 in Fatorda at a cost of ₹ 193.94 lakh.
- Improvement of existing road by providing hot mixing carpet at various roads in Kadsare in V.P. Warkhand-Nagzar in Pernem Taluka at a cost of ₹ 74.96 lakh.
- Improvement of existing road by providing hot mixing carpet from NH-17 to Mulvir Devasthan Malpe and other link road in V.P. Virnoda in Pernem Taluka at a cost of ₹ 58.20 lakh.
- Improvement, widening and hot mixing of road from Deulwada junction to Bhaidwada via Pettechawada in V.P. Corgao at a cost of ₹ 112.06 lakh.

- Improvement of existing various roads by providing hot mix carpet at Tiwada in V.P. Dhargal in Pernem taluka at a cost of ₹ 63.59 lakh.
- Improvement of existing various roads by providing hot mixing in V.P. Casarvarnem in Pernem Taluka at a cost of ₹ 59.50 lakh.
- Urgent reconstruction of culvert on road leading from MDR-18 to Korkhandkarwada at Harmal in Pernem Taluka at a cost of ₹ 18.80 lakh.
- Development of Playground in Ward No. VI at Nova Cidade Enclave in V.P. Pilerne -Marra in Bardez Taluka at a cost of ₹ 35.10 lakh.
- Improvement and hotmixing from NH 17 to main road (at Parra Soak) in V.P Gurirm at a cost of ₹ 86.08 lakh.
- Construction of retaining wall to the main road at Calizor for improvement and widening of sharp narrow curve in V.P Moira at a cost of ₹ 56.30 lakh
- Development of road in a length of 990.00 mtre in W. No. 9 in V.P. Guirim in Bardez Taluka at a cost of ₹ 135.09 lakh.
- Improvement and hotmixing of road from Satpurush temple Bandar to NH 17 Tarikode in V.P Bastora of Aldona at a cost of ₹ 82.69 lakh.
- Improvement of existing road by providing retaining wall and drain in St. Sebastian ward No. 2 in V.P. Pomburpa -Olaulim in Bardez Taluka at a cost of ₹ 166.98 lakh.
- Improvement and hotmixing of variouis road from Punola junction to NH 17 (at Bastora Bridge) via Paliem in V.P Ucassaim -Paliem -Punola in Aldona at a cost of ₹ 85.45 lakh.
- Important and hotmixing of roads in W.No. IV, V, VI and VII in V.P Bastora of Aldona at a cost of ₹ 85.00 lakh.
- Improvement and hot mixing of various roads in ward No I, II & III in V.P Bastora of Aldona at a cost of ₹ 77.01 lakh.
- Imp and hotmixing of various roads in Ward No VII in V.P Moira at a cost of ₹ 69.59 lakh.
- Construction of retaining wall to widening the existing road near Santa Cruz chapel ward No 6 of V.P Aldona at a cost of ₹ 59.53 lakh.
- Improvement and hotmixing of various roads in ward No. III in V.P.Nachinola in Bardez Taluka at a cost of ₹ 42.28 lakh.
- Improvement and hotmixing of roads at Calizor in V.P Moira in Bardez Taluka at a cost of ₹ 51.32 lakh.
- Hotmixing of various roads in ward No. VII in V.P. Nachinola at a cost of ₹ 51.59 lakh.
- Widening of existing narrow culvert at Pomburpa Patto in V.P. Pomburpa Olaulim in Bardez Taluka at a cost of ₹ 34.20 lakh.
- Construction of retaining wall from Johny house to Diana house at Panarim in V.P Aldona at a cost of ₹ 69.09 lakh.
- Improvement and resurfacing various road in ward No I and II in V.P Ucassaim-Pailem-Puniola of Aldona at a cost of ₹ 51.45 lakh.

- Improvement and hotmixing of road from Moira Bridge to Attafonde W. No. V in V.P. Moira of Bardez Taluka at a cost of ₹ 34.38 lakh.
- Improvement and hotmixing of various roads in ward No 5 (Panarim and Satarxet)in V.P Aldona of Aldona at a cost of ₹ 62.05 lakh.
- Preventive measures to landslide on the Hillock at Moira Church in V.P Moira of Bardez taluka at a cost of ₹ 104.80 lakh.
- Construction of retaining wall to the main road at Calizor for improvement and widening of sharp narrow curve in V.P Moira at a cost of ₹ 57.41 lakh.
- Improvement of road from Saligao junction to Sharvani Temple in V.P. Saligao of Bardez Taluka at a cost of ₹ 42.79 lakh.
- Construction of footpath at arradi in V.P Saligao of Bardez Taluka at a cost of ₹ 104.13 lakh.
- Improvement and hotmixing of roads at 20 pt programme and at Barros vaddo in V.P Sangolda in Saligao at a cost of ₹ .58.06 lakh.
- 02Construction of retaining wall in W. no. IV in V.P Marra Pilerene in Bardez Taluka at a cost of ₹ .47.51 lakh.
- Improvement and hotmixing of road at Cumio Morod in V.P Guirim in Saligao at a cost of ₹ 37.36 lakh.
- Improvement and hotmixing of road from Parra tinto to Piedade chapel near NH 17 in V.P Guirim at a cost of ₹ 72.13 lakh.
- Improvement of road from main road junction to Peter house at Sorvemvaddo in V.P. Guirim of Bardez Taluka at a cost of ₹ 74.09 lakh.
- Development of road at Alto Saulem near Goan Paradise in V.P. Marra – Pilerne of Bardez Taluka at a cost of ₹ 163.14 lakh.
- Improvement and hotmixing of roads in ward No 1 in V.P Saligao of Bardez taluka at a cost of ₹ 93.53 lakh.
- Construction of road at Agri Vaddo in V.P Gurim of Bardez taluka at a cost of ₹ 26.28 lakh.
- Widening of road with footpath at various places in ward No. 4 of Mapusa Municipality of Bardez Taluka at a cost of ₹ 282.86 lakh.
- Hotmixing and Improvement of roads at Alto Porvorim, Resicom Residency & Green hill in V.P. Socorro for a length of 5.695 Km, of Bardez Taluka (5054 – 04 – 800 -03 – 53) at a cost of ₹ 128.18 lakh.
- Hotmixing and Improvement of Link roads Khapreshwar Devasthan & Holy Family church for a length of 1.26 km in V.P. Salvador -do Mundo & V.P. Socorro of Bardez taluka (5054 – 04 – 800 -03 – 53) at a cost of ₹ 57.44 lakh.
- Urgent protective measure to road near Bruno D'Souza house at Donwado in V.P. Salvador - do- Mundo of Bardez Taluka (5054-04-800-03-53) at a cost of ₹ 30.10 lakh.
- Urgent repairs of road due to water logging from Rita Fernandes house to Domnic Braganza house and Construction of gutters from Domnic Braganza house to Rupesh Dessai house at Cunchelim of Bardez Taluka at a cost of ₹ 28.90 lakh.

- Construction of retaining wall from Mr. Chandrahas Gadekar house to Mr. Swapnil Arabekar's house in Ward No. 16 of Bardez Taluka at a cost of ₹ 37.42 lakh.
- Hotmixing of various left out roads in V.P. Verem Vaghurme of Ponda Taluka at a cost of ₹ 77.21 lakh.
- Improvement of various internal roads at Talangal by providing hotmix in V.P. Borim of Ponda Taluka at a cost of ₹ 40.74 lakh.
- Providing hotmix to the internal roads at Shivshail in V.P. Shiroda in Ponda Taluka at a cost of ₹ 84.36 lakh.
- Construction of compound wall along the boundary of the Goa Engineering College premises at Farmagudi in Ponda Taluka at a cost of ₹ 283.13 lakh.
- Construction of retaining wall at Gurvaswada near Mharingan temple in Kundai V.P. of Ponda Taluka at a cost of ₹ 58.01 lakh.
- Improvement of road side & pathways near Vithoba temple at Talaulim of Ponda Taluka at a cost of ₹ 71.53 lakh.
- Providing hot mix carpet to the internal roads near Engineering College at Farmagudi of Ponda Taluka at a cost of ₹ 101.06 lakh.
- Construction of retaining wall from Ganapati Temple at Muliabhat to Santosh Gaude house in Ward No.1 in Adpoi-Durbhat V.P. of Ponda Taluka at a cost of ₹ 52.52 lakh.
- Construction of retaining wall at Barazan in Ward No.4 of Valopi taluka at a cost of ₹ 84.22 lakh.
- Construction of retaining wall at Zingdemol in V.P. Curti Khandepar of Ponda Taluka at a cost of ₹ 75.55 lakh.
- Improvement of road with soling and full grout at Shree Suryanarayan Temple in V.P. Borim of Ponda Taluka at a cost of ₹.71.65 lakh.
- Improvement of various internal roads by providing hot mix at Tariwada, Talpane, Sokerai, Musher and Aksan in V.P. Shiroda in Ponda Taluka at a cost of ₹ 76.70 lakh.
- Improvement of road with hot mixing from main road to Shree Siddhanath Temple in V.P. Borim of Ponda Taluka at a cost of ₹ 94.42 lakh.
- Construction of protection wall for the collapsed roadside embankment at Kulan in V.P. Verem Vaghurme of Ponda Taluka at a cost of ₹ 98.72 lakh.
- Improvement to various internal roads at Paniwada & Adulshe in V.P. Borim in Ponda Taluka at a cost of ₹ 50.43 lakh.
- Improvement of internal roads from Paz to Bibal, Shivnagar and Davan by providing hotmix in V.P. Shiroda in Ponda Taluka at a cost of ₹ 62.83 lakh.
- Hot mixing of road at jambhulbhat from kelbai wada upto mahamaya High School in V.P. Mayem of Bicholim Taluka at a cost of ₹.25.86 lakh.

- Improvement of the premises of Lairai Devasthan at Shirigao of Bicholim Taluka at a cost of ₹ 51.90 lakh.
- Urgent repairs to collapsed embankment at road ch.00 to 70 mts along MDR. 22 Sawantwada near Saseshwar temple in V.P. Mayem in Bicholim Taluka at a cost of ₹ 15.48 lakh.
- Construction and Black topping of road from Totewada to Tarwada at Piligao in V.P. Piligao of Bicholim Taluka at a cost of ₹ 9.08 lakh.
- Improvement and Hotmixing of various roads in V.P Surla of Bicholim Taluka at a cost of ₹ 66.88 lakh.
- Improvement and hotmixing of various internal branch roads in V.P. Nagargao in Sattari Taluka at a cost of ₹ 403.00 lakh.
- Improvement and widening of road VL-3 fronch. 0.00 to ch. 6.80 kms in V. P. Sanvordem at a cost of ₹ 220.08 lakh.
- Improvement & hotmixing of road POR-89 from Honda to Morlem (S.H.No.1 to S.H. No.4) in Sattari Taluka at a cost of ₹ 302.65 lakh.
- Improvement & hotmixing of various internal road in ward No.02 in V.P. Mulgao of Bicholim Taluka at a cost of ₹ 30.87 lakh.
- Improvement and hotmixing of road from Mhatrai Temple to Sateri Temple, Lamgao Ward No.12 in Bicholim Municipal Council of Bicholim Taluka at a cost of ₹ 53.58 lakh.
- Hotmixing of internal roads in Ward No.12 Lamgao of Bicholim Municipal Council of Bicholim Taluka at a cost of ₹ 40.33 lakh.
- Construction of new road No. B96 at Pistewada, Nanoda in V.P. Latambarcem of Bicholim Taluka at a cost of ₹ 18.59 lakh.
- Improvement and B.T of road from Galgibag to Ghanebag in V.P Poinguinim of Canacona taluka at a cost of ₹.26.92 lakh.
- Imp. & providing hot mixing of existing road passing from the house of Shri Cruz D'Costa to Barim bridge at Dhawalkhajan in V.P. Agonda in Canacona taluka at a cost of ₹ 12.89 lakh.
- Construction of road near St. Sebastian Church in V.P. Loliem Polem of Canacona taluka at a cost of ₹ 12.81 lakh.
- Construction of road from main road to Shri Mahadev temple at Kuskem in V.P Cotigao in Canacona taluka at a cost of ₹ 10.62 lakh.
- Improvement and widening of road from Char Rasta to Patnem Junction including Bhagatwada of Canacona taluka at a cost of ₹ 94.01 lakh.
- Imp. of ring road near Shri Ganapati Temple at Karashirmol by providing hot mix carpet in V.P. Agonda of Canacona taluka at a cost of ₹ 35.86 lakh.
- Imp. & resurfacing of various road at Vadamol in V.P. Shristhal of Canacona taluka at a cost of ₹ 57.19 lakh.
- Road widening and hot mixing from NH-17 to Mallikarjun Collage and 4 linked

- roads at Mastimol in C.M.C. of Canacona taluka at a cost of ₹ 45.87 lakh.
- Repair of road by laying hot mix from main road Ponsulem to Shingale in ward No.IV in CMC of Canacona taluka at a cost of ₹.50.86 lakh.
 - Imp. and resurfacing of road lead from NH-17 to Sakhreval of Canacona taluka at a cost of ₹ 30.88 lakh.
 - Imp. & resurfacing various roads in ward No. VII at Patnem Canacona Municipal area in Canacona taluka at a cost of ₹.23.52 lakh.
 - Widening and resurfacing of various roads at ward no. 03 in of Canacona taluka at a cost of ₹.42.10 lakh.
 - Construction of retaining wall from N.H.17 to upto (Wovati Phati) at Delem in Canacona Municipal Council of Canacona taluka at a cost of ₹ 29.11 lakh.
 - Urgent repairs to road leading to Saklawada Quitol in V.P. Fatorpa of Quepem taluka at a cost of ₹ 44.51 lakh.
 - Protection to road side embankment & providing drainage along the road leading to Subdolem in V.P. Barcem of Quepem taluka at a cost of ₹ 35.61 lakh.
 - Construction of road from main road Dhabem to Dharmali in V.P. Morpirla of Quepem taluka at a cost of ₹ 42.13 lakh.
 - Construction of road from Garbhat to Konkanifond at Dhabem in V.P. Morpirla of Quepem taluka at a cost of ₹ 44.53 lakh.
 - Construction of road from Kalay-Devnamol PWD road to Edimol in V.P. Kalay in Sanvordem at a cost of ₹ 106.00 lakh.
 - Construction of road from PWD roads to Geeta Narvekar via Gajanan Narvekar house at Thorlemol in V.P. Kalay in Sanvordem at a cost of ₹ 24.14 lakh.
 - Improvement & providing hot mix to the road from Kalay-Costi main road to Shri. Kondo Jungli house at Cuinamol in V. P. Kalay in Sanvordem at a cost of ₹ 44.91 lakh.
 - Construction of road from Kalay Playground to Kamdhar in V.P. Kalay in Sanguem Taluka at a cost of ₹ 44.44 lakh.
 - Providing hotmix carpet to the road to Gauthan-Pilliem & Pratapnagar wada in Revenue village Pilliem in V.P. Dharbandora in Sanvordem at a cost of ₹ 73.67 lakh.
 - Hotmixing of internal roads at Caryemol, Rajambo, Newwado, Gaonkarwada and Molcopan in V.P. Molcornem, in Sanguem taluka at a cost of ₹ 67.72 lakh.

RURAL ROADS (Tribal (ST) SUB-PLAN)

The following works were completed during the year 2021-22

- Improvement and hotmixing of PWD road from NH4A (opp. To Cross +) to Dhando Junction inn V.P. Corlim of Tiswadi Taluka at a cost of ₹ 84.02 lakh.

- Improvement of roads with hotmixing various place at Pethyer in V.P. Carambolim panchayat of Tiswadi Taluka at a cost of ₹ 72.40 lakh.
- Widening & Improvement of road from Sai Service to Dugdha Society and at Chariwada at Magilwada in V.P. Veling, Priol, Cuncoliem of Ponda Taluka at a cost of ₹ 98.24 lakh.
- Providing protection to the roadside embankment at Galwada, Vaddem in V.P. Veling, Priol, Cuncoliem of Ponda Taluka at a cost of ₹ 34.50 lakh.
- Repairs to the branch road & providing road side protection wall at Chimulawada in V.P. Tivrem Orgao of Ponda Taluka at a cost of ₹ 16.29 lakh.
- Urgent repairs to the branch roads at Ganesh Nagar in V.P. Betqui Khandola of Ponda Taluka at a cost of ₹ 26.79 lakh.
- Providing roadside protection to the collapsing embankment at Talewada on GEC road in VP V.P.K. of Ponda Taluka at a cost of ₹ 81.66 lakh.
- Providing roadside protection for collapsing embankment near GPS Apewal in V.P. Veling, Priol, Cuncoliem of Ponda Taluka at a cost of ₹ 30.24 lakh.
- Providing retaining wall to the collapsed roadside near crematorium at Zariwada in V.P. Veling, Priol, Cuncoliem of Ponda Taluka at a cost of ₹ 48.94 lakh.
- Providing protection to the embankment near Ganesh Temple at Ghodkire in V.P. V.P.K. of Ponda Taluka at a cost of ₹ 28.13 lakh.
- Providing protection wall at the collapsed side at Simepaine in V.P. V.P.K. of Ponda Taluka at a cost of ₹ 26.31 lakh.
- Various developmental works at Ganesh Nagar and at Ganapatiwada in V.P. Betqui Khandola of Ponda Taluka at a cost of ₹ 48.71 lakh.
- Provision for parking by laying RCC slabs over the gutters from Bappa Medical store to La-Marcella Colony junction in V.P. Tivrem Orgao of Ponda Taluka at a cost of ₹ 51.91 lakh.
- Resurfacing of MDR-50 from Bhatpal Check post to Gaondongrim Bazar in V.P. Gaondongrim of Canacona taluka at a cost of ₹ 355.77 lakh.
- Strengthening of existing road from Marlem to Tirwal in Village Panchayat Poinguinim of canacona taluka at a cost of ₹ 65.13 lakh.
- Strengthening and providing hotmix carpet to the road from SH-7 to Ambe & Dhullai Wada in Dharbandora in Sanvordem at a cost of ₹ 130.42 lakh.
- Strengthening and providing Hot Mix Carpet to the road from SH-7 to Malharimol wada in V.P. Kirlapal Dabal in Sanvordem at a cost of ₹ 77.67 lakh.

TOURISTIC ROADS

The following works were completed during the year 2021-22

- Improvement, widening and hotmixing of various roads in Saligao of Bardez Taluka at a cost of ₹ 903.94 lakh.

Annexure – 29**Water Supply Scheme (Urban/Rural)****Urban Water Supply Schemes**

The following works were completed during the year 2021-22.

- Supply, installation, testing and commissioning of 9/11 Mather & Platt make, 2 stage medivane horizontal split case centrifugal pump as per additional specifications and condition and requirement for 2.5 MGD plant at Opa water works at a cost of ₹ 27.71 lakh.
- Replacement & shifting of 100 mm AC/ 90mm OD PVC distribution main by 160mm OD PVC distribution main from Opa to Khandepar V.P. in Ponda at a cost of ₹ 25.23 lakh.
- Improvement of water supply system to Bambolim in St. Andre constituency - Providing water supply to Athletic stadium at Bambolim at a cost of ₹ 42.19 lakh.
- Maint. of Opa water works - Urgent overhauling and other works of Induction motors needed due to submergence of 54 MLD plant at Opa at a cost of ₹ 26.03 lakh.
- Water supply project for the Corporation of the City of Panaji under AMRUT - providing, installing, testing and commissioning of 40 HP pumps set and allied works at Altinho tank premises, Panaji at a cost of ₹ 28.27 lakh.
- Laying of 110 mm OD & 160 mm OD PVC pipelines for improvement of water supply to the areas of Shirshirem, Aframet and Krupanagar in Village Panchayat Borim at a cost of ₹ 60.19 lakh.
- Maintainance of Opa water works - Rewinding and replacement of bearing of 3.3 KV 550 KW squirrel cage induction motors of 12 MGD plant at Opa at a cost of ₹ 23.41 lakh.
- Augmentation of water supply to Kodar and Betoda villages by laying 150mm dia D.I. conveying min pipeline from Gaonkarwada - Kodar to GLR at Kabhet – Betoda, Shiroda at a cost of ₹ 112.02 lakh.
- Urgent replacement of existing pipeline from Tollebandh circle to BM Servicing, Borda and surrounding areas in Fatorda at a cost of ₹ 31.68 lakh.
- Supply & installation of 33KV AB switches, drop out fuses lighting arrestors and insulators along with overall inspection and servicing of 33 KV electrical substation at Assonora water works at a cost of ₹ 13.39 lakh.
- Supply installation of 33KV VCB substation at Assonora Water works at a cost of ₹ 15.22 lakh.
- Supply of Poly Aluminium chloride powder form at Assonora water works at a cost of ₹ 11.60 lakh.
- Internal and external Painting of 12 & 30 MLD water treatment plant at Assonora at a cost of ₹ 15.95 lakh.
- Designing, programming, installation, testing and commissioning of smart wireless water level maintaining system for Master Balancing Reservoir at Assonora in Thivim at a cost of ₹ 5.22 lakh.
- Urgent repairs of 45KV/60HP verticle motor from jackwell pumping station at Chandel 15MLD water treatment plant at a cost of ₹ 1.80 lakh.

- Constructions of Open well near the house of Uday Mandrekar at Sonya Palye Tuem in Mandrem at a cost of ₹ 7.36 lakh.
- Maintenance of R.W.S.S. in Pernem Taluka - Supply of potable drinking water by stainless steel tanker to the scarcity areas Pernem taluka (from 20th April 2020 to 10th June 2020) at a cost of ₹ 4.68 lakh.
- Maintenance of RWSS in Pernem Taluka – Urgent repair of 240 HP induction motor at 15 MLD Chandel plant at a cost of ₹ 1.95 lakh.
- Supply installation, testing and commissioning of submersible pump sets of 60 HP with repairs to 75 HP centrifugal pump motors at Chandel at a cost of ₹ 4.75 lakh.
- Laying of PVC distribution line in ward No. IV in V.P Pomburpha Olaulim of Bardez taluka at a cost of ₹ 1.07 lakh.
- Replacement of existing 100mm AC pipeline with 110mm dia PVC pipeline from Moreena Villa to Jizza Bar in V.P. Sirsaim in Tivim at a cost of ₹ 18.83 lakh.
- Installing and removing of Bandara planks at Assonora river to control the flow of water at a cost of ₹ 0.81 lakh.
- Maintenance of water supply scheme in Calangute and its surrounding areas – Urgent laying of 110mm dia PVC pipeline of 110 dia PVC pipeline from main line to Tivaiwado for boosting existing line at a cost of ₹ 2.43 lakh.
- Operation & maintenance of 15MLD WTP at Chandel in Pernem Taluka – Repairs and overhauling of Worthington make vertical turbine pump at 15 MLD Jack well at chandel at a cost of ₹ 3.04 lakh.
- Urgent replacement of damaged/failed 1250KVA, 33KV/3.3Kv transformer by Designing, Manufacturing, supply, erection, installation, Testing and Commissioning of new 1250 KVA, 33KV/3.3KV, outdoor type oil filled transformer with On load tap changer at Gogol Pumping Station, Margao-Goa at a cost of ₹ 48.50 lakh.
- Improvement of water supply at Zorint, Zuarinagar and surroundings areas in V.P. of Sancoale in Cortalim at a cost of ₹ 30.33 lakh.
- Augmentation of Salaulim Water Supply Scheme: - Providing and laying of Additional 400 mm dia. DI Conveying main from Ambaulim, Quepem to 250 M3 sump at Nayaband, Balli pump house in Quepem at a cost of ₹ 844.67 lakh.
- Providing and laying ductile iron pipeline from Pongirwal junction to Bansai in Curchorem Municipal areas in Curchorem at a cost of ₹ 58.18 lakh.

Rural Water Supply Schemes

The following works were completed during the year 2021-22:

- Urgent shifting of distribution main due to widening of single lane to four lane road from Caitans house at Malwada to Navdurga temple at Marcaim at a cost of ₹ 61.32 lakh.
- Construction of 300m³ OHR and 650m³ GLR/Sump at Daptamol Maxem in V.P. Loliem-Pollem in Canacona Taluka at a cost of ₹ 155.41 lakh.
- Maintenance of water supply scheme to Calangute and surrounding areas- Urgent laying of 110 mm PVC pipeline at Gaura Vaddo to avoid contamination of water and improvement in the area at a cost of ₹ 12.54 lakh.

- Construction of Open well near the house of Uday Mandrekar at Sonya Palye Tuem in Mandrem at a cost of ₹ 7.36 lakh.
- Replacement of existing 100mm AC pipeline with 110mm dia PVC pipeline from Moreena Villa to Jizza Bar in V.P. Sirsaim in Tivim at a cost of ₹ 18.83 lakh.

Rural Water Supply Schemes (TRIBAL (ST) SUB-PLAN):

The following works were completed during the year 2021-22:

- Extension of water supply pipeline from Ziltawadi to Satorlim Ghorvoi in VP Gaondongrim in Canacona under Tribal Sub Plan Constituency at a cost of ₹ 21.20 lakh.
- Laying of 63mm dia PVC pipeline and providing 50 Nos. LIG water tap connections to low income group families at Pissonem, Vargotimol and Shirlim in VP Barcem Quedem of Quepem Taluka under Tribal Sub Plan Constituency at a cost of ₹ 9.90 lakh.

NATIONAL RURAL Water Drinking Programme:

The following works were completed during the year 2021-22:

- Providing water tap connections to households, providing, supplying & laying PVC pipeline, installing pump set, under "Har Ghar Nal Se Jal" to various talukas like Bardez, Sattari, Bicholim at a cost of ₹ 1092.08 lakh.

JAL JEEVAN MISSION (JJM)

The following works were completed during the year 2021-22:

- Providing ' Har Ghar Nal Se Jal' to the households in Villages under Navelim, Velim & Cuncolim in Salcete Taluka at a cost of ₹ .9.52 lakh
- Providing "Har Ghar Nal se Jal" to the householdss in villages under Curtorim & Nuvem at a cost of ₹ 17.99 lakh
- Maint. of wss under SDIV/WDIX(PHE) PWD Monte Margao. Providing "Har Ghar Nal Se Jal" to the households in old Mardol & neighbouring areas of village Panchayat in Nuvem at a cost of ₹ 17.28 lakh

Annexure- 30

Year wise data (Last 5 years)of Kadamba Transport Corporation Limited

Year wise Data on accident

Year	No. of Accident			
	Fatal	Major	Minor	Total
2016-17	3	65	09	77
2017-18	5	54	20	79
2018-19	1	34	15	50
2019-20	3	38	17	58
2020-21	1	12	8	21

Source : Directorate of Transport

Income of KTCL

(₹ in lakh)

Year	Earning					
	Traffic		Govt. Subsidy & Other Income		Total	
	Earnings	EPKM	Earnings	EPKM	Earnings	EPKM
2016-17	7029.78	23.51	9674.55	32.36	16704.33	55.87
2017-18	7265.01	23.66	9703.68	31.60	16968.69	55.25
2018-19	8327.68	24.10	11770.96	34.07	20098.64	58.17
2019-20	8653.71	26.77	11828.16	36.58	20481.87	63.35
2020-21	3565.68	24.71	11514.49	79.79	15080.17	104.51

Source : Directorate of Transport

Expenditure of KTCL

(₹ in lakh)

Year	Total Cost after prior year adjustment & extra ordinary items	Profit/Loss for the year	CPKM
2016-17	17057.43	-353.10	57.05
2017-18	18072.19	-1103.50	58.84
2018-19	22386.52	-2287.88	64.80
2019-20	21749.98	-1268.11	67.27
2020-21	15847.03	-766.86	109.82

Source : Directorate of Transport

Annexure – 31
Income and expenditure of the Village Panchayats

Sr. no	Item	2020-21														Total
		₹ In Lakhs														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
		Tiswadi	Bardez	Pernem	Bicholim	Sattari	Ponda	Sanguem	Dharbandora	Canacona	Quepem	Salcete	Mormugao			
1	Number of Panchayats	19	33	20	18	12	19	7	5	7	11	30	10	191.00		
2	Income (□ In Lakh)	3341.74	5374.35	2233.40	1695.89	1372.27	2241.58	880.73	465.76	866.70	964.17	2611.56	1268.72	23316.87		
	Grants from Govt.	1812.21	1403.44	1278.09	1397.18	1175.82	1540.7800	770.58	343.26	638.63	772.90	1457.70	514.35	13104.94		
	Other Grants	289.98	310.11	314.06	58.24	7.71	103.8800	18.58	0.00	112.56	88.96	232.22	88.62	1604.92		
	Proceeds of taxes, fees, etc	771.08	1886.92	331.51	117.93	67.83	320.5600	28.77	75.18	88.00	53.91	491.13	360.81	4593.63		
	Others	488.48	1773.88	309.74	122.54	120.91	276.3600	62.80	47.31	27.51	48.40	430.51	304.94	4013.38		
3	Expenditure (□ In Lakh)	2004.27	4538.56	1354.70	669.72	580.63	1222.16	434.18	316.30	407.07	489.7	1313.83	884.50	14215.62		
	Administration	440.23	1029.23	381.89	255.18	191.15	460.64	110.80	134.97	123.30	204.78	648.65	272.43	4253.24		
	Sanitation & Public Health	382.77	1118.55	98.01	70.08	50.02	185.85	25.91	34.68	40.83	120.62	169.44	137.54	2434.30		
	Public Works	1013.84	1539.17	474.94	279.14	261.40	340.21	227.84	91.57	158.64	106.45	229.00	316.19	5038.38		
	Planning & Development	3.19	10.82	0.00	1.01	0.90	14.41	0.00	5.27	0.00	0.90	112.91	4.07	153.48		
	Education and Culture	5.77	59.16	1.87	1.42	1.33	10.61	1.43	2.08	1.90	1.04	13.77	4.58	104.96		
	Social Welfare	6.70	19.54	4.91	6.09	5.81	14.62	1.96	4.86	0.78	0.84	22.54	9.35	98.00		
	Miscellaneous	141.44	698.95	347.49	45.88	70.03	153.52	62.49	24.71	68.05	42.45	57.71	88.86	1801.58		
	Others	10.34	63.14	45.59	10.92	0.00	42.30	3.75	18.16	13.57	12.62	59.81	51.48	331.67		

Annexure -32

Year wise distribution of Domestic and Foreign Tourist Arrivals

Year	Domestic	Foreign	Total
2012	2337499	450530	2788029
2013	2629151	492322	3121473
2014	3544634	513592	4058226
2015	4756422	541480	5297902
2016	5650061	680683	6330744
2017	6895234	890459	7785693
2018	7081559	933841	8015400
2019	7127287	937113	8064400
2020	2671533	300193	2971726
2021 (Upto Dec 2021) (P)	3308089	22128	3330217

Source: Department of Tourism, Government of Goa

Annexure – 33

Details of the training and review meetings held under Swayampurna Goa Program

Sr. No	Name of the Training/ Review meet	Date	SM's/TNO's	Public
1	Training- Launch of ABSG	28/10/2020	65	-
2	Training- Launch of ABSG	29/10/2020	63	-
3	Training- Launch of ABSG	30/10/2020	63	-
4	CM meet at Menezes Hall	02/10/2021	125	-
5	Interactive Sessions	04/08/2021	115	-
6	Training Programme (Secretariat)	07/09/2021	50	-
7	Virtual Meet- CM	08/07/2021	191	-
8	SM meet, at Pilerne	14/8/2021	8	100
9	Siolim, Review meet	31/8/2021	8	85
10	Netravali, Review meet	21/8/2021	10	75
11	Review meet (Chorao)	26/8/2021	8	55
12	Bethora, Shiroda Review meet	09/04/2021	7	60
13	Thivim - Review meet	19/9/2021	15	125
14	Orientation Training Programme at ICAR	20/9/2021	125	-
15	Orientation Training Programme at ICAR	21/9/2021	125	-
16	Virtual Meet	18/9/2021	191	-
17	Canacona , Review meet	25/9/2021	50	150
18	Bicholim&mayem, Review	26/9/2021	56	125
19	Pernem/Mandrem, Review	10/01/2021	56	115
20	Virtual Meet	10/02/2021	191	-
21	Cuncoim Review meet	10/03/2021	70	75
22	MES, Vasco, Review	10/08/2021	70	125
23	Sankhalim, Review	10/10/2021	65	150
24	Virtual training on Portal - Link Officer	10/07/2021	35	-
25	Virtual training on Portal - Link Officer	10/11/2021	25	-
26	Virtual training on Portal - Link Officer	10/12/2021	25	-
27	Virtual Meet -CM	10/09/2021	190	-
28	Virtual training on Portal - SM	13/10/2021	125	-
29	Virtual training on Portal - SM	14/10/2021	115	-
30	Vitual meeting CM	16/10/2021	206	-
31	Virtual meet- PM	23/10/2021	206	-
32	Virtual training on Portal - PS	27/10/2021	191	-
33	Virtual training on Portal - Link Officer	28/10/2021	45	-
34	Review meet -Tiswadi	31/10/2021	15	50
35	Aldona/Porvorim Review	14/11/2021	10	75
36	Shiroda Review	26/11/2021	20	70
37	Training - SM urban (new)	29/11/2021	50	-
38	PM - 19 December 2021	19/12/2021	275	7000
39	ISHT Mobile APP training - Online	01/04/2022	125	-
40	ISHT Mobile APP training - Online	01/05/2022	115	-
	Total		3500	8435
16 Trainings, 1 8 review meetings, 4 CM Review metings at State level & 2 PM's Meetings				

Annexure – 34

Department-wise No. of activities conducted in rural & urban areas

Sr. No	Department	01/10/2020 to 31/03/2021	01/04/2021 to 31/12/2021	Total
1	Agriculture	173	70	243
2	Animal Husbandry	147	42	189
3	Social Welfare	136	61	197
4	Fisheries	72	35	107
5	District Rural Development Agency	77	48	125
6	Skill Development	72	31	103
7	Women & Child Development	71	35	106
8	Health	48	67	115
9	Economic Development Corporation	33	24	57
10	Tribal Welfare	28	41	69
11	Khadi & Village Industries Board	21	23	44
12	Public Works Department	14	4	18
13	Water Resources Department	14	9	23
14	Electricity	12	9	21
15	Labour	11	14	25
16	Handicraft, Textile & Coir	10	6	16
17	GHRSSIDC	8	4	12
18	Industries	7	7	14
19	Forest	7	10	17
20	Art & Culture	6	13	19
21	Panchayats	3	4	7
22	Education	1	1	2
23	Civil Supplies & Consumer Affairs	1	2	3
24	Goa Waste Management Corporation	1	10	11
25	Sports and Youth Affairs	1	13	14
26	Tourism	1	3	4
27	Banks & Post	17	117	134
28	Other	34	39	73
29	Common Service Centre (Eshram Card)	0	67	67
	Total	1026	809	1835

Annexure – 35

Sector-wise No. of beneficiaries under Swayampurna Goa Programme

Sr. No	Sector	Scheme	No. of Beneficiaries
1	Agriculture	Krishi card	1310
2		PM Kissan	601
3		KCC	144
4		Soil Health Card	337
5	AHVS	Krishi card	78
6		KCC	87
7	Fisheries	KCC	38
8	Health	DDSSY	155
9	Social Welfare	DSSS	874
10	Women & Child Development	GrihaAadhar	367
11	Public Works Department	Water	653
12	GWMC/DOP	Toilets	2556
13	Electricity	Electricity	88
14	Shelter for all	Housing	77
15	Social Welfare	Divyang (Equipments)	2157
16		Divayang (UDID)	778
17		Sr. Citizen card	772
18	Bank & Insurance	Bank Accounts / Atal Pension	506
19		PMJJBY	852
20		PMSBY	645
21		GGUY	493
Total			13568
Workers from unorganised sectors registered on the e-shram portal			10667
Grand total			24235

Annexure – 36

Taluka - wise No. of Swayampurna Mitras

Name of the Taluka	Rural	Urban	Total
Tiswadi	19	6	25
Bardez	33	4	37
Bicholim	18	6	24
Pernem	20	2	22
Satari	12	2	14
Salcete	30	8	38
Mormugoa	10	5	15
Quepem	11	6	17
Sanguem	7	2	9
Canacona	7	2	9
Dharbandora	5	-	5
Ponda	19	3	22
Total	191	46	237

Annexure – 37 A

Grant-in-aid for Researchers in the field of Science & Technology and for projects of Students as part of Academic Curriculum under the Department of Science & Technology & waste Management for the year 2021-22 till date.

Sr. No	Name of the Institution / Organization & Title of the Project	Amount of financial grants provided
01	Rajaram and TarabaiBandeekar College of Pharmacy, Farmagudi-Goa. One year project entitled "Development and optimization of Modulated Novel Oral Liquid Dosage form of Enzymes Supplements for Geriatrics"	₹ 1,68,000/-
02	Don Bosco College of Engineering, FatordaMargao. Project Proposal entitled "Sanitizing Robot"	₹ 95,639/-
03	Don Bosco College of Engineering, FatordaMargao. Project Proposal entitled "Design and Development of Drone for spraying pesticides on Coconut tree"	₹ 2,30,000/-
04	Don Bosco College of Engineering, FatordaMargao. For one year duration Project titled "Development of Arecanut Grading Equipment by optimization of processing parameters using design of equipment's"	₹ 1,30,000/-
05	Agnel Institute of Technology & Design, Assagao, Bardez. For one year duration Project titled "Production and Testing of Palm Based Bio-Diesel"	₹ 28,455/-
06	Agnel Institute of Technology & Design, Assagao, Bardez. For one year duration Project titled "Design and detachable mechanical drive system for harnessing electricity from gymnasium equipment"	₹ 22,500/-
07	National Institute of Oceanography, Dona Paula. Towards second installment for the project entitled "Environmental Impact of Micro-plastic, a major concern to Seafood"	₹ 3,00,000/-
08	Agnel Institute of Technology and Design Assagaon- Goa. For project proposal entitled "Design and Fabrication of weed removal machine"	₹ 68,000/-
09	National Institute of Oceanography, Dona Paula. towards 2 nd installment for the project entitled "Environmental impact of micro-plastic, a major concern to seafood"	₹ 3,00,000/-
10	Goa College of Engineering, Farmagudi-Ponda. towards 1st installment for the project entitled "Development of composite material using mine waste"	₹ 1,00,000/-
11	St. Xavier's College, Mapusa. towards 2nd Installment for 03 Years Project entitled "Synthesis of Novel Coumaryl Pyrazoles and CoumarylPyrazolones and Study of their Antioxidant and Antiglycosidase Activity"	₹ 2,00,000/-
12	Goa University, Taleigao, Goa. 3 rd installment towards project proposal entitled "Dye yielding plants of Goa and their potential use in Biological and Textile Staining"	₹ 2,50,000/-
13	BITS Pilani, Goa Campus, ZuariNagar, Goa. 3 rd installment towards project proposal entitled "Process improvement in Urrak and Feni Production in Goa"	₹ 2,50,000/-
14	P.E.S's R.S.N college of Arts and Science, Farmagudi, Ponda. towards 1st installment for 03 years project entitled "Corrosion and Corrosion in habitat study in Environment of Goa".	₹ 2,50,000/-
Total		₹ 23,92,594/-

Source: Directorate of Science and Technology & Waste Management

ANNEXURE – 37 B

Grant-in-aid to Conduct Seminars, Workshops, Awareness Programmes, Exhibitions & Providing Financial Assistance to teaching Faculties, Researchers and subject specialty experts to participate in science seminars & Workshops in India and Abroad in the field of Science and Technology for the year 2021-22 till date.

Sr. No	Name of the Institution / Organization & Title of the Project	Amount of financial grants provided
01	Dhempe College of Arts and Science, Miramar. For travel grants to Dr. Minal Shirodkar, to attend International Conference on Bio-diversity & Ecological Restoration” at Brussels, Belgium.	₹ 1,50,318/-
02	Vidnyan Vardhini, Sanquelim-Goa. Towards conducting 38 Seminars and awareness programme in 38 high schools through the programme “Chhota Scientist”	₹ 2,37,000/-
03	St. Michael Convent High School, Anjuna, Vagator, Bardez – Goa. for conducting one day exhibition “Glow On 2021” titled “Creation Innovation”	₹ 40,000/-
04	Goa College of Home Science, Campal, Panjim – Goa Towards registration and processing fees to Ms. Charlotte Facho, Associate Professor, Goa College of Home Science, Campal, Panjim to attend online oral presentation and for publication of book of Abstract at the 5 th International Conference on Natural Fibers (ICNF 2021), held at Portugal on 17 th , 18 th and 19 th May 2021.	₹ 31,460/-
05	St. Thereza High School, STO. Estevam, Tiswadi – Goa for conducting Science and Environment Exhibition on 28 th February 2022 “SCIENCTASTICA 2022”	₹ 40,000/-
06	Agnel Institute of Technology and Design, Assagao, Bardez – Goa for conducting one week Faculty Development Programme “Advances in Manufacturing and Automation”.	₹ 1,00,000/-
07	Member Secretary, Goa State Council for Science and Technology, Saligao - Goa for conducting “Taluka level Quiz Competition” on online mode in Mormugao Taluka and Salcete or Tiswadi Taluka (any one Taluka).	₹ 1,00,000/-
Total		₹ 6,56,730/-

Source: Directorate of Science and Technology & Waste Management

Annexure - 38

Financial Assistance in form of Grant-in-aid given to following Organizations under special pattern of assistance during 2021-22 till date.

Sr. No	Name of the Institution / Organization & Title of the Project	Amount of financial grants provided
01	<u>Association of Friends of Astronomy, Panaji-Goa.</u> to meet expenditure of the remuneration of the Department Staff, maintenance, of Astronomical Observatory at Junta House, Panaji & other locations in the State and to carry out their annual activities.	₹ 17,19,667/-
02	<u>Goa State Innovation Council, Don Bosco College of Engineering-Fatorda.</u> for the current financial year 2021-22 for the purpose of implementation for various programmes of GSInC.	₹ 50,00,000/-
03	<u>Vidnyan Parishad, Caranzalem, Goa.</u> for organizing Science Film Festival 2021, held during 17 th and 18 th March 2021 at ESG Complex, Panaji.	₹ 20,00,000/-
04	<u>Goa Waste Management Corporation, Saligao-Bardez Goa.</u> Annual grants towards administrative cost of GWMC and implementation of waste management initiatives in the state of Goa as per approved pattern of assistance.	₹ 58,83,81,041/-
05	<u>Goa State Council for Science and Technology, Saligao - Bardez Goa.</u> Towards support against deficit for the salary by central ministry for the previous year 2020-2021	₹ 15,00,000/-

Source: Directorate of Science and Technology & Waste Management

Annexure -39

The initiatives taken up by GSInC during the year (2021-2022) till date

Sr No	Initiatives	No. of Sessions	No. of Participants
1	Sensitisation Workshops on Innovation & Creativity in Schools	35	2076
2	Bootcamps on Innovations, Startups & Prototyping	5	327
3	Prototyping Workshops – Thing Design & Prototype	85	4339
4	Intellectual Property Rights Sessions	3	206
5	Panel Discussion on Innovation, Startups & Prototyping	1	201
6	Faculty Development Program (FDP) on Innovation, Creativity & Prototyping	2	40
7	Financial Literacy Workshop for Schools	3	286
	Total	134	7475
		No. Projects Supported	
1	Ideathon - Affordable Healthcare Technology Innovations Goa	20	
2	Prototyping Grant Scheme	18	
3	Provisional Patent Supported	4	
	Total Project Supported	42	

Source: Goa State Innovation Council

Annexure 40
SDG INDIA INDEX – COMPARISON

Sustainable Development Goals	Goa State's Score in India		Goa State's Score in India		SDG India Index 2018 (1.0)		SDG India Index 2019-20 (2.0)		SDG India Index 2020-21 (3.0)	
	Index Score	Goa Position	Index Score	Goa Position	Index Score	Goa Position	Index Score	Goa Position	Index Score	Goa Position
Goa State's Ranking in India	64	4 th	65	7 th	72	4 th	60	66	66	75
INDIA's composite score in India	62	9 th	53	12 th	83	2 nd	60	66	66	75
Goa State's Score in India	80	1 st	76	1 st	78	2 nd	65	65	72	86
SDG 1: No Poverty	65	9 th	60	15 th	72	12 th	82	86	86	86
SDG 2: Zero Hunger	71	8 th	71	3 rd	71	3 rd	81	80	80	80
SDG 3: Good Health & Well-Being	35	21 st	46	4 th	55	8 th	52	64	64	64
SDG 4: Quality Education	65	10 th	77	22 nd	100	1 st	96	100	100	100
SDG 5: Gender Equality	61	11 th	95	2 nd	100	1 st	97	100	100	100
SDG 6: Clean Water & Sanitation	90	1 st	71	9 th	76	2 nd	82	78	78	78
SDG 7: Affordable & Clean Energy	Nil	27 th	45	18 th	68	4 th	88	72	72	72
SDG 8: Decent Work & Economic Growth	50	27 th	19	28 th	75	5 th	94	88	88	88
SDG 9: Industry, Innovation & Infrastructure	71	1 st	79	1 st	89	2 nd	79	91	91	91
SDG 10: Reduced Inequalities	-	-	63	8 th	47	28 th	100	99	99	99
SDG 11: Sustainable Cities & Communities	-	-	41	19 th	44	21 st	71	70	70	70
SDG 12: Sustainable Consumption & Production	-	-	47	5 th	50	7 th	65	82	82	82
SDG 13: Climate Action	100	3 rd	99	3 rd	59	22 nd	100	93	93	93
SDG 14: Life Below Water	87	3 rd	79	7 th	63	26 th	86	86	86	86
SDG 15: Life on Land										
SDG 16: Peace, Justice & Strong Institutions										

*Category: Viz. Achiever (100), Front Runner (65-99), Performer (50-64), Aspirant (0-49)

Annexure 41
SDG Urban Index & Dashboard 2021-22

City	SDG 1	SDG 2	SDG 3	SDG 4	SDG 5	SDG 6	SDG 7	SDG 8	SDG 9	SDG 10	SDG 11	SDG 12	SDG 13	SDG 16	Average Score	Composite Score	Rank
Vijayawada	64	69	64	66	65	82	86	34	31	58	64	77	73	78	65.07	65	30
Visakhapatnam	64	62	72	71	71	76	87	40	65	46	71	69	77	83	68.14	68	18
Itanagar	58	61	40	56	44	65	98	37	34	42	39	50	65	85	55.29	55	54
Guwahati	58	55	65	56	48	62	68	30	48	62	43	100	42	44	55.79	56	53
Patna	45	39	60	79	78	82	36	17	30	60	48	100	62	66	57.29	57	52
Chandigarh	58	56	61	88	80	87	92	50	59	71	90	74	67	80	72.36	72	3
Raipur	60	24	58	79	64	79	73	64	67	61	77	86	75	76	67.36	67	20
Panaji	54	53	73	75	90	90	89	59	65	66	81	38	75	98	71.86	72	6
Ahmedabad	65	49	60	70	76	87	92	26	66	73	87	100	42	84	69.79	70	9
Rajkot	57	35	57	80	88	67	65	31	40	56	83	100	66	90	65.36	65	28
Surat	59	41	69	68	87	83	82	28	78	61	91	82	59	83	69.36	69	11
Vadodara	61	47	53	78	73	81	79	51	67	62	89	64	63	89	68.36	68	15
Fardabad	45	47	42	75	58	53	85	48	56	38	52	100	51	70	58.57	59	47
Shimla	70	60	80	69	79	72	99	54	62	62	64	100	100	86	75.50	76	1
Srinagar	54	64	71	56	78	56	98	21	30	43	62	75	63	90	61.50	62	39
Dhanbad	46	48	56	83	83	54	25	16	21	48	67	67	40	80	52.43	52	56
Ranchi	58	66	58	81	83	81	57	42	59	60	57	79	75	79	66.79	67	24
Bengaluru	56	47	53	81	81	70	91	79	30	64	64	100	75	76	69.07	69	13
Kochi	70	80	71	93	97	91	90	39	19	64	59	48	100	91	72.29	72	5
Tiruvananthapuram	73	60	70	96	91	82	66	38	50	68	60	69	100	90	72.36	72	3
Bhopal	65	40	63	51	72	92	84	54	76	56	82	96	50	76	68.36	68	15
Gwalior	57	32	71	57	67	87	79	37	51	34	83	100	65	73	63.79	64	34
Indore	59	22	60	63	70	85	84	52	54	58	78	85	75	77	65.86	66	26
Jabalpur	59	43	64	62	75	75	60	34	62	36	65	76	65	84	61.43	61	40
Aurangabad	44	59	60	81	69	59	81	24	55	79	67	85	74	78	65.36	65	28
Mumbai	45	45	61	85	79	81	89	17	38	85	61	87	50	80	64.50	65	33
Nagpur	48	46	68	83	84	83	79	42	65	74	74	86	68	77	69.79	70	9
Nashik	53	35	58	83	88	79	59	31	42	80	92	92	69	84	67.50	68	19
Pune	57	54	69	87	88	79	51	51	68	75	82	88	66	82	71.21	71	7
Imphal	69	73	56	62	83	66	53	50	60	67	26	52	52	70	59.93	60	43
Shillong	80	69	64	78	81	65	89	21	70	53	50	50	100	86	68.29	68	17

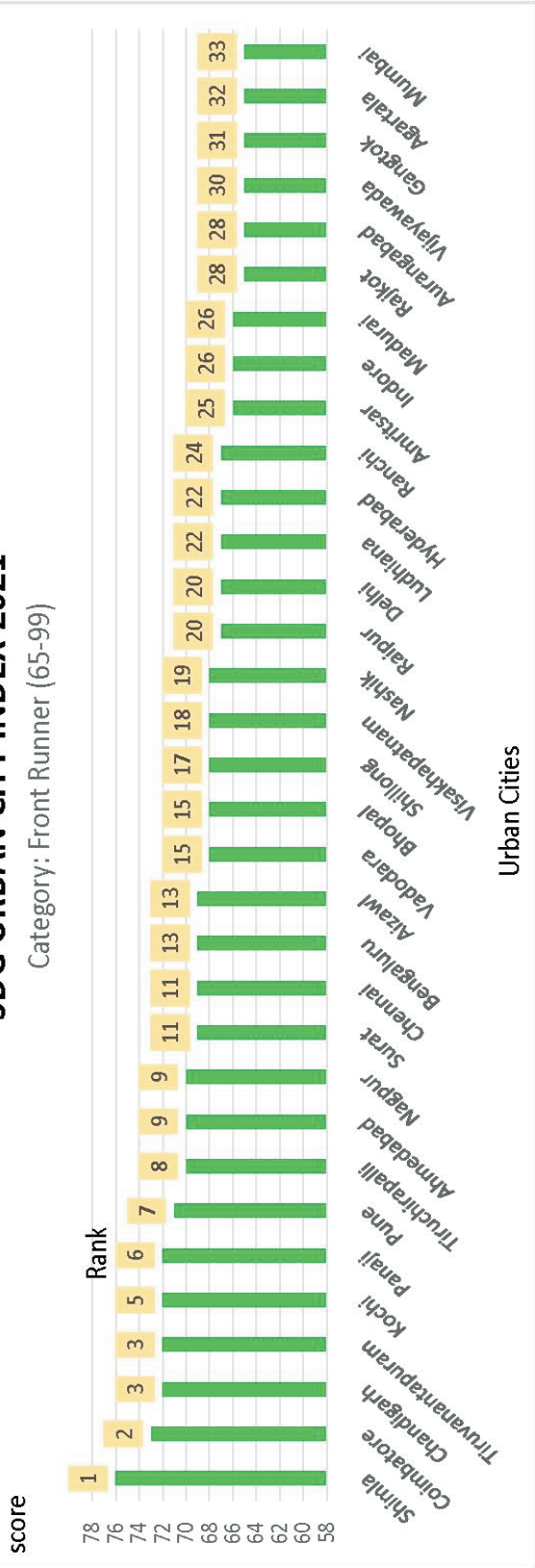
Annexure 41 (Cont..)

City	SDG 1	SDG 2	SDG 3	SDG 4	SDG 5	SDG 6	SDG 7	SDG 8	SDG 9	SDG 10	SDG 11	SDG 12	SDG 13	SDG 16	Average Score	Composite Score	Rank
Aizawl	75	66	67	67	80	57	97	30	58	55	49	75	100	91	69.07	69	13
Kohima	52	70	57	61	90	66	83	51	66	5	29	60	87	36	58.07	58	50
Delhi	58	49	63	83	72	79	92	45	64	80	81	63	43	71	67.36	67	20
Bhubaneshwar	51	41	65	50	74	62	38	58	73	52	40	66	95	71	59.71	60	44
Amritsar	54	69	76	73	69	78	88	38	39	97	55	84	18	88	66.14	66	25
Ludhiana	56	53	64	73	76	84	97	32	36	95	63	88	36	84	66.93	67	22
Jaipur	55	36	69	79	71	74	83	48	60	34	58	69	64	69	62.07	62	37
Jodhpur	46	36	63	75	73	82	87	30	52	26	55	61	49	77	58.00	58	51
Kota	45	32	69	71	70	65	80	31	33	39	65	88	63	76	59.07	59	45
Gangtok	57	66	41	74	77	72	79	47	45	56	47	93	64	92	65.00	65	31
Chennai	65	63	69	80	87	72	94	36	50	67	50	87	67	84	69.36	69	11
Coimbatore	87	62	71	88	82	67	80	40	70	60	73	91	67	88	73.29	73	2
Madurai	80	61	59	81	71	68	83	32	53	61	52	66	67	88	65.86	66	26
Tiruchirappalli	80	53	63	81	86	65	93	23	64	61	79	79	63	90	70.00	70	8
Hyderabad	56	62	61	77	57	77	97	48	46	57	73	81	62	83	66.93	67	22
Agartala	60	56	63	52	88	64	69	46	40	67	55	96	64	87	64.79	65	32
Agra	31	41	62	51	74	57	57	34	53	64	72	100	45	74	58.21	58	49
Ghaziabad	47	44	50	54	80	67	66	23	65	67	77	100	36	77	60.93	61	41
Kanpur	57	35	51	63	81	72	83	29	58	54	60	100	45	78	61.86	62	38
Lucknow	60	42	60	63	69	79	90	41	49	58	70	75	49	76	62.93	63	36
Meerut	31	38	45	64	69	74	42	30	38	55	65	91	51	72	54.64	55	55
Prayagraj	54	52	68	59	74	89	42	21	49	51	66	100	49	76	60.71	61	42
Varanasi	42	28	53	61	76	67	46	36	66	44	80	100	54	73	58.79	59	46
Dehradun	59	45	59	72	79	77	96	59	47	58	52	78	31	80	63.71	64	35
Kolkata	40	27	56	71	72	79	93	3	48	57	67	64	54	88	58.50	59	48
Target	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100.00	100	

Annexure 42

SDG URBAN CITY INDEX 2021

Category: Front Runner (65-99)



Urban Cities

SDG URBAN CITY INDEX 2021

Category: Performer (50-64)



Urban Cities

Annexure – 43

Expenditure on Research as % to Gross State Domestic Product

States	2018-19 Accounts (₹ in Crores)	% to GSDP	2019-20 Revised Estimate (₹ in Crores)	% to GSDP	2020-21 Budget Estimate (₹ in Crores)	% to GSD
Andhra Pradesh	3303.2	0.4	1356.7	0.1	2187.0	0.2
Arunachal Pradesh	82.2	0.3	175.2	0.6	275.9	0.9
Assam	408.7	0.1	596.9	0.2	479.6	0.1
Bihar	2094.6	0.4	3382.0	0.6	3139.7	0.5
Chhattisgarh	517.9	0.2	1169.1	0.4	1087.3	0.3
Goa	244.6	0.3	374.9	0.5	580.3	0.7
Gujarat	2560.6	0.2	3160.0	0.2	3706.0	0.2
Haryana	1468.8	0.2	2061.7	0.2	2617.1	0.3
Himachal Pradesh	970.4	0.6	979.8	0.6	992.8	0.5
Jharkhand	860.9	0.3	622.7	0.2	802.2	0.2
Karnataka	3652.5	0.2	3504.8	0.2	3824.7	0.2
Kerala	2581.4	0.3	2527.7	0.3	2954.3	0.3
Madhya Pradesh	1652.6	0.2	1428.8	0.2	1503.5	0.2
Maharashtra	3368.3	0.1	4333.7	0.2	4476.9	0.1
Manipur	32.2	0.1	272.6	0.9	207.8	0.6
Meghalaya	44.4	0.1	59.6	0.2	84.9	0.2
Mizoram	91.7	0.5	144.0	0.7	71.7	0.3
Nagaland	47.8	0.2	104.9	0.3	163.7	0.5
Odisha	1261.6	0.3	1361.7	0.3	1872.2	0.3
Punjab	709.1	0.1	772.9	0.1	1160.2	0.2
Rajasthan	293.3	0.0	310.6	0.0	342.7	0.0
Sikkim	66.8	0.2	44.5	0.1	54.8	0.1
Tamil Nadu	2314.7	0.1	2968.5	0.2	4504.7	0.2
Telangana	911.6	0.1	801.3	0.1	938.3	0.1
Tripura	45.7	0.1	51.6	0.1	57.2	0.1
Uttar Pradesh	5087.7	0.3	7129.9	0.4	8028.3	0.4
Uttarakhand	639.8	0.3	713.9	0.3	876.4	0.3
West Bengal	2265.6	0.2	2146.7	0.2	2342.4	0.2
NCT Delhi	259.8	0.0	309.8	0.0	391.5	0.0
Puducherry	125.0	0.3	138.0	0.3	144.8	0.3
All States	37963.4	0.2	43004.4	0.2	49868.8	0.2

Note:

1. Data pertaining to 30 states excluding Jammu and Kashmir
2. GSDP figures used are as per the RBI State Finance Report 2020-21. For estimating expenditure on research as % of GSDP for 2018-19 Actuals and 2019-20 Revised Estimates, GSDP figures for 2018-19 and 2019-20 are used. Budget Estimates of GSDP as given in the State Finance Report are used for estimating expenditure on research as % of GSDP for 2020-21.

Annexure – 44

No. of Conferences organized

Institution	2020-21		2021-22	
	National	International	National	International
Goa Dental College	-	-	-	-
Goa University	8	1	0	1
Goa Engineering College	2	0	0	0
NIT	0	3	1	1
BITS	39	82	32	115
ICAR	2	0	3	0
NIO	Nil	Nil	0	1
Directorate of Higher Education	38	17	23	8

Annexure – 45

No. of Papers Presented

Institution	2020-21		2021-22	
	National	International	National	International
Goa Dental College	51	2	0	0
Goa University	0	243	0	170
Goa Engineering College	13	78	20	61
NIT	7	161	1	120
BITS	2	232	3	284
ICAR	12	23	8	27
NIO	0	243	0	218
Directorate of Higher Education	150	397	61	230

Annexure – 46

No. of Patents granted

Institution	2020-21		2021-22	
	Filed	Granted	Filed	Granted
Goa Dental College	0	0	0	0
Goa University	0	1	0	0
Goa Engineering College	0	0	0	1
NIT	13	5	6	5
BITS	0	8	0	10
ICAR	0	0	0	0
NIO	0	1	0	3
Science & Technology	22	2	0	21
Directorate of Higher Education	0	1	0	0

Annexure – 47

Utilization of Funds towards Research & Development

(₹ in lakh)

Institution	2020-21			2021-22		
	Provided	Funds allocated for R&D	Funds Utilized under R&D	Provided	Funds allocated for R&D	Funds Utilized under R&D
Goa Dental College	-	-	-	-		
Goa University	12101	0	44.20	12694	0	Yet to be audited
Goa Engineering college	6145.36	100	2.79	6266.63	100	0
NIT	41.59	41.59	85.11*	82.15	82.15	21.90
BITS Capex Opex	2496.5 17801	859.45 423.79	34% 2%	2844.55 19406.3	1259.99 389.49	44% 2%
ICAR	1807.04	376.33	376.33	1822.78	351.00	351.00
NIO	11524.57	7480.57	7480.57	17797.10	13464.60	13464.60
Science & Technology	25401.51	37.50	23.94	2755.15	40.93	40.93
Directorate of Higher Education	48393.55	2056	470.62	50394.30	2000	20

Annexure – 48

Manpower engaged in Research & Development

Institution	2020-21		2021-22	
	Post Doctorate	Research Scholars	Post Doctorate	Research Scholars
Goa Dental College	0	27	0	0
Goa University	0	148	0	233
Goa Engineering college	NR	NR	NR	NR
NIT	-	40	-	40
BITS	6	97	5	105
ICAR	25		22	
NIO	220		219	
Directorate of Higher Education	300		621	