

Mangrove and Marine Biodiversity Conservation Foundation of Maharashtra (Mangrove Foundation) Annual Report Financial Year 2021–22



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Foundation.

Concept: Virendra Tiwari, IFS, Executive Director

Anita Patil, IFS, Joint Director

Compiling team: Manas Manjrekar, Deputy Director - Research & Capacity Building

Siddhesh Surve, Assistant Director - Capacity Building

Hrishikesh Rane, Officer - Capacity Building

Sailee Joshi-Gupte, Livelihood Specialist

Image Source: Mangrove Foundation photo bank

Cover page Design: Sailee Joshi-Gupte, Livelihood Specialist, Mangrove Foundation

Cover Photo: Harshal Karve, Marine Biologist, Mangrove Foundation

Back Cover Photo: Raman Kulkarni, Photographer

Report Design: Sailee Joshi-Gupte, Livelihood Specialist, Mangrove Foundation

Hrishikesh Rane, Officer - Capacity Building, Mangrove Foundation



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MINISTER FORESTS, CULTURAL AFFAIRS, FISHERIES

Maharashtra State Mantralaya, Mumbai 400 032 www.maharashtra.gov.in

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Message

Maha 'Great' and Rashtra 'Nation', Maharashtra is appropriately named for its contribution to India's economic growth, its biodiversity and cultural heritage. Our diverse and beautiful forests, coasts, grasslands and wetlands are life support systems for millions.

Maharashtra is well-known for its Kokan coast with scenic beaches, unrivalled hospitality and diverse wildlife which includes charismatic animals such as the flamingos, corals, sea turtles, dolphins and whales. Our coastal communities have always lived and continue to live in harmony with nature, drawing both sustenance and livelihood from it.

Our Government, especially the Forest Dept's Mangrove Cell and Mangrove Foundation has made valuable contributions to conserving this natural coastal and marine heritage, with support from the local communities. This year is very special to the Mangrove Cell as it completes 10 years of mangrove protection and conservation in the State. Their efforts are visible through the 'India State of Forest Report 2021' published by the Forest Survey of India (FSI) which states that the mangrove cover of Maharashtra has increased from 186 km² in 2012 to an astonishing 324 km² in 2021.

The State Government's 'Mangrove Conservation and Livelihood Generation' scheme implemented by the Mangrove Cell and Mangrove Foundation is now providing sustainable livelihood activities to around 90 villages across the coastal districts of Maharashtra. Furthermore, the Fishermen Compensation Scheme has strengthened our bond with the fisher folks whilst protecting the scheduled marine species under the Wildlife (Protection) Act, 1972. The research on mangroves and other coastal species of Maharashtra is encouraging many young researchers and nature enthusiasts to take up research activities in the field of coastal and marine biodiversity.

Lastly, I convey my congratulations to the Mangrove Cell and the Mangrove Foundation for safeguarding the coastal and marine wealth of Maharashtra and wish them all the success.

(Sudhir Mungantiwar)

Preface

Virendra Tiwari, IFS

Executive Director, Mangrove Foundation & Additional Principal Chief Conservator of Forests, Mangrove Cell



For Mangrove Foundation, F.Y. 2021–22 has been quite eventful as we were part of an array of events not just limiting to protection and conservation of mangroves and marine biodiversity of Maharashtra but also various research, sustainable livelihood and awareness programmes. The highlight of a few of them are as follows:

The Forest Survey of India (FSI) publishes 'India State of Forest Report (ISFR)' every two year and I am delighted to say that in 2021 the mangrove cover of Maharashtra increased from 320 sq.km (2019) to 324 sq.km (2021). Furthermore, out of the total 17 sq.km increase in mangrove cover throughout India, Maharashtra contributes 4 sq.km which is almost 25 percent. This demonstrates that we are heading in the right direction in terms of protection and regeneration and that there is awareness among the people regarding consequences of destruction of mangroves.

The Thane Creek Flamingo Sanctuary (TCFS) which harbors more than one lakh flamingos has been proposed for certification as a Ramsar Site (Wetlands of International Importance) to protect the migratory birds and their habitat for posterity. I am pleased to inform that this proposal has been cleared by the Government of Maharashtra and it is hoped that Mumbai will soon have its own Ramsar Site.

Moving on, we had our very first award ceremony to felicitate selected personnel of the Mangrove Cell/Foundation, Forest Dept., Self-Help Groups and Citizen volunteers who have played an exemplary role in mangrove and marine biodiversity conservation in the State. We decided to organise the 'Mangrove Foundation Awards 2021' on 26 July 2021, on the occasion of the International Day for Conservation of Mangrove Ecosystem.

For understanding the movement pattern of Olive Ridley Sea Turtles off the coast of Western India we commissioned a research project to Wildlife Institute of India. Under this project a total of five Olive Ridley Sea Turtles were satellite tagged in Ratnagiri.

On the occasion of the International Day of Forests (21 March 2022), we collaborated with the Office of the Chief Postmaster General, Maharashtra Circle for releasing a Flamingo-themed Special Postal Cover with Special Cancellation. The said special cover will help in creating awareness regarding the conservation and protection of this charismatic species.

This annual report presents the details of the various activities and programmes carried out by the Mangrove Foundation in F.Y. 2021-22.

I congratulate the Mangrove Foundation team for putting together such an elaborate and detailed report.

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1. Introduction

The Mangrove Foundation is a registered society under the Societies Registration Act, 1860 (set up in 2015). It functions under the aegis of the Mangrove Cell, Maharashtra Forest Dept. and undertakes implementation of various programmes and activities for the conservation and protection of the mangroves and the coastal & marine biodiversity of Maharashtra. The Mangrove Foundation works synergistically with the Forest Dept. and provides the much-needed monetary support for various mangrove protection activities, it undertakes the implementation of sustainable livelihood activities across coastal Maharashtra involving local communities, conducts various awareness programmes and collaborates with various scientific institutions and NGOs for conservation-oriented research projects.

Important coastal habitats found in Maharashtra



Fig.1. Mangroves and Mudflat



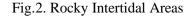




Fig.3. Corals

This annual report presents the gist of various programmes and activities undertaken by the Mangrove Foundation and the financial details pertaining to various programmes of the Foundation in F.Y. 2021–22.

2. Financial aspects of the Mangrove Foundation for the F.Y. 2021–22

The Mangrove Foundation was registered with a corpus of ₹ 115 crores in 2015 with a mandate to run its operations from the interest income generated by keeping its corpus funds in Fixed Deposits. Additionally, it receives project/activity specific funds from various Government Departments & Agencies and CSR funds from various corporate organisations. Since 2015, the corpus of the Mangrove Foundation has grown and at the end of F.Y. 2021–22, the corpus is ₹ 525.91 crores.

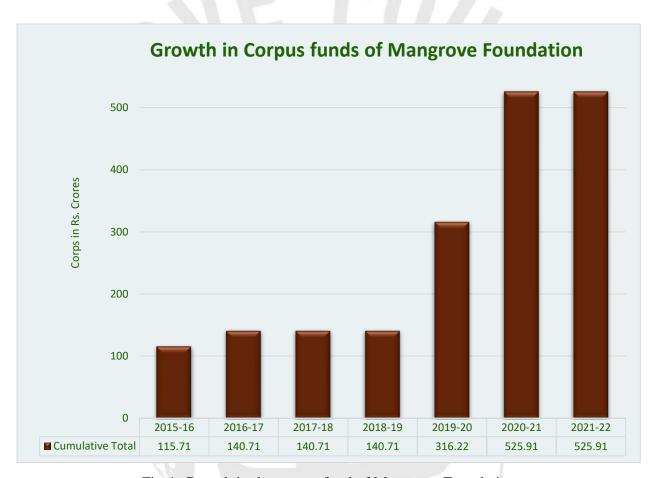


Fig.4: Growth in the corpus fund of Mangrove Foundation

2.1 Regarding the Financial Budget and Expenditure of Mangrove Foundation in F.Y. 2021–22

The Annual Financial Budget for F.Y. 2021–22 of the Foundation was approved by the Governing Body of the Foundation in its meeting dated 06/09/2021. The summarised details of Annual Budget and Actual (Unaudited) Expenditures are as follows:

Table 1: Details of the annual budget for F.Y. 2021–22 and related expenditure

Sr. No	Budget Head	% To Total Budget	Budget (Amount in ₹ Lakhs)	Expenditures (Amount in ₹ Lakhs)	Expenditure %
i.	Mangrove Protection Framework	21%	640	545	85 %
ii.	Livelihood Activities	30%	690	327	47 %
iii.	Ecotourism	30%	200	36	18 %
iv.	Research and Projects	6%	166	101	61 %
v.	Capacity Building	2%	60	35	58 %
vi.	Communication and Awareness	3%	100	48	48 %
vii.	Coastal and Marine Conservation Measures	5%	150	48	32 %
viii.	Marine Stranding and Rescue Centre	2%	70	75	106 %
ix.	Miscellaneous	1%	30	5	17 %
х.	Human Resources	11%	330	379	115 %
xi.	Administration	17%	504	338	67 %
xii.	Assets Procurement	2%	60	16	27 %
	Total	100%	3,000	1,952	65 %

The detailed budget and expenditure statement for F.Y. 2021–22 is given in Annexure-I.

The Foundation also received ₹ 2.53 crores towards project/activity specific funds (i.e., earmarked or non-corpus funds) in F.Y. 2021–22. The details of the non-corpus funds received in F.Y. 2021–22 and its expenditure is given in Annexure-II.

Table 2: Details of the Non-corpus fund budget for F.Y. 2021–22 and related expenditure

Sr. No	Budget Head	Budget (Amount in ₹ Lakhs)	Expenditures (Amount in ₹ Lakhs)
i.	BNHS – MTHL project	337.67	337.67
ii.	Mangrove Plantation from CSR funds	149.06	59.50
iii.	Chain Link Fencing – CSR funds from Ajmera	60.76	46.30
iv.	Habitat improvement of TCFS – Bullet train (NHSRCL)	200.00	-
v.	MMRDA – MTHL project	1,611.00	105.00
vi.	UNDP SEED funds	6.20	6.31
vii.	MMRDA – Tree felling cost (DFO-CAMPA) funds	0.78	-
viii.	Funds for HDPE Cage Net, GI Pipe – DFO MMCU	10.43	2.85
ix.	Conservation breeding of Rusty-spotted Cat – CSR Funds	159.55	80.00
X.	CSR funds from MTDC for upgrading medical equipments in SGNP	-	12.79
	Total	2,535.45	650.42

2.2 Revenue of Mangrove Foundation in F.Y. 2021–22

Mangrove Foundation has a mandate of generating its revenue from depositing its corpus funds into fixed deposits of nationalised banks or investing it in government securities. Accordingly, Foundation has deposited its funds in FDs and has generated interest income for its operations. Similarly, Foundation has also received receipts from CMBC, Airoli and livelihood projects, etc.

Table 3: Details of the revenue of Foundation for F.Y. 2021–22

Sr. No	Particulars	Budget (Amount in ₹ Lakhs)
i.	Interest Income	3,191.42
ii.	Receipts from CMBC, Airoli	26.10
iii.	Receipts / Income from Livelihood Scheme	14.81
iv. Other Receipts / Income		1.08
	Total	3,233.41

3. Mangrove Conservation and Protection Activities

3.1 Mangrove Afforestation

In F.Y. 2021–22, a total of 68 hectares of degraded mangrove land was restored under the mangrove afforestation programme spread over 8 locations throughout the coastal districts of Maharashtra and 1,46,652 mangrove saplings were planted (<u>Annexure-III</u>). In some places, the fishbone canal technique was implemented in order to ensure maximum survival. **The total expenditure incurred for the mangrove afforestation programme in F.Y. 2021–22 was ₹ 58.53 lakhs.**

Table 4: Mangrove plantation details in F.Y. 2021–22

Sr. No.	District	Area taken under Plantation (in Hectares)
i.	Mumbai Suburban	5
ii.	Thane	18
iii.	Palghar	38
iv.	Raigad	7
	Total	68

Table 5: Details of expenditure on the first-year mangrove plantation programme in 2021–22

Sr. No.	Funding Source	Funds provided in lakhs (₹)
i.	Mangrove Conservation and Livelihood Generation Scheme (State Plan)	37.75
ii.	UNDP-Green Climate Fund (GCF)	13.30
iii.	Corporate Social Responsibility (CSR)	7.48
	Total Amount	58.53

The total expenditure made by Foundation with regards to the maintenance of earlier plantations in the F.Y. 2021–22 was ₹ 59.50 Lakhs.



Fig.5. Collected Propagules



Fig.6. Nursery Bed Preparation



Fig.7. Fishbone canal technique for plantation



Fig.8. Mangrove Plantation

3.2 Mangrove Protection

Considering the high vulnerability to encroachment and debris dumping in the mangrove areas of Mumbai and Mumbai Suburban region and to overcome the staff shortage, the Mangrove Cell, through Mangrove Foundation, has employed the services of the Maharashtra State Security Corporation. 158 security guards were deployed for the protection and patrolling of mangroves in Mumbai, Mumbai Suburban and Navi Mumbai areas in F.Y. 2021–22. The total expenditure made by Foundation regarding the hiring of the said security guards in F.Y. 2021–22 was ₹ 4.83 crores.

In the F.Y. 2021–22, more than 450 illegal hutments and other constructions over an area of 2.32 Ha which had cropped up on mangrove lands in some parts of Mumbai and Thane such as Chembur, Ghatkopar-Mankhurd, Diva were removed/demolished by the Mangrove Cell. The Mangrove Foundation provided a financial support of ₹ 6.71 lakhs for the said encroachment removal activities.

Furthermore, in order to prevent encroachment of the mangrove areas in some sensitive parts of Mumbai and Mumbai Suburban region, the Mangrove Cell has undertaken the construction of Mangrove Protection Wall in some areas such as Charkop, Erangul, Kandivali, Malwani, Kanjur, Mandale, Mahul, Anek, etc. The total length of Protection Wall which is to be constructed in parts at the above-mentioned locations is 6.15 km and of this, 3.12 km was completed upto F.Y. 2020–21 and 1.09 km was completed by the end of F. Y. 2021–22.

For the said construction of the Protection Wall, the Mangrove Foundation has provided a funding of ₹ 1.15 crores in F.Y. 2021–22.



Fig.9. Encroachment Removal



Fig. 10. Mangrove Protection Wall

3.3 1926 - Hello Forest

The Mangrove Foundation has engaged two operators with the '1926 – Hello Forest' service as a part of grievance redressal facility for mangrove conservation and the expenditure incurred by the Foundation for this service in **F.Y. 2021–22** was ₹6.58 lakhs.

4. Implementation of Sustainable Livelihood Activities

Implementation of sustainable livelihood activities in coastal villages of Maharashtra through the participation of the local coastal communities is a major objective of the Mangrove Foundation. The mangroves and associated habitats of creeks and estuaries have great potential for providing alternative livelihood sources to the local communities and hence the Mangrove Foundation has initiated various sustainable livelihood activities such as mud crab farming, oyster farming, mussel farming, fish cage culture, ornamental fish culture and mangrove ecotourism in various coastal villages of the State.

For the identification of suitable sites and implementation of various aquaculture based livelihood activities, the Mangrove Foundation has collaborated with a number of Govt. research institutions which are working in the field of sustainable aquaculture [for e.g. ICAR – Central Marine Fisheries Research Institute (CMFRI), ICAR – Central Institute of Brackishwater Aquaculture (CIBA), The Marine Products Exports Development Authority (MPEDA), Rajiv Gandhi Centre for Aquaculture (RGCA), ICAR – National Bureau of Fish Genetic Resources (NBFGR)].

The livelihood activities are being implemented by the Foundation under a State Govt. scheme 'Mangrove Conservation and Livelihood Generation'. This scheme is implemented through village-based Mangrove Co-Management Committees (MCMC) formed in the selected villages which have considerable mangrove cover and by the end of F.Y. 2021–22, 122 villages from Palghar, Thane, Raigad, Ratnagiri, Sindhudurg and Mumbai Suburban districts have been covered under the scheme (Annexure-IV).

4.1.1 Livelihood Development: Aquaculture based activities

The aquaculture-based livelihood activities being implemented by the Foundation are oyster farming, mussel farming, fish cage culture (seabass and pearlspot), ornamental fish culture and the details regarding the operational aquaculture projects in various coastal districts of Maharashtra are given in Table 6.

Table 6: Operational livelihood projects in coastal districts of Maharashtra in F.Y. 2021–22

Livelihood Activities	Palghar	Thane	Raigad	Ratnagiri	Sindhudurg	No. of units per activity
Ornamental Fishery	11	6	4	8	29	58
Sea bass cage culture	11	-	8	7	24	50
Oyster Culture	-	-	-	16	21	37
Mussel farming	-	-	-	4	20	24
Sea bass nursery	-	1	-	-	-	1
Pearl spot fish nursery	-	-	-	-	7	7
Total no. of units	22	7	12	35	101	177

For the implementation of the various livelihood activities the main source of funding is through the State Govt. Budget under the 'Mangrove Conservation and Livelihood Generation Scheme' and the funds provided under the said scheme in F.Y. 2021–22 were ₹ 162.55 lakhs. Table 7 shows the details of the funds provided to various coastal districts received from the State Govt. Budget:

Table 7: Details of the funds provided through the State Govt. Budget for the Livelihood

Generation Scheme in F.Y. 2021–22

Districts	Palghar in lakhs (₹)	Thane in lakhs (₹)		Ratnagiri in lakhs (₹)	Sindhudurg in lakhs (₹)	Total in lakhs (₹)
Funds provided	56.15	2.34	20.69	22.12	61.25	162.55

Also, for the effective and timely implementation of the livelihood programmes, the Mangrove Foundation has made an expenditure of ₹ 3.27 crores in F.Y. 2021–22.

<u>Table 8: Details of the expenditure made by Mangrove Foundation regarding implementation of livelihood programmes in F.Y. 2021–22</u>

Sr. No.	Particulars	Expenditure Amount in Lakhs (₹)				
i.	Project awarded to ICAR-CIBA regarding implementation of various aquaculture activities in coastal Maharashtra	36.50				
ii.	Livelihood Scheme related expenses along the Maharashtra coast	75.21				
iii.	Project fees to NBFGR for operating the Marine Ornamental fish breeding centre at Airoli	64.40				
iv.	Professional fees and TA – DA to Project Associates	150.97				
	Total 327.					

The livelihood activities being implemented by the Mangrove Foundation have started generating revenue for the local communities and in F.Y. 2021–22 the total revenue generated was ₹ 57.28 lakhs. The details of the revenue generated by various aquaculture-based livelihood activities in 2021–22 are as follows:

Table 9: Details of the revenue generated by various livelihood activities in F.Y. 2021–22

District	Livelihood activity	Revenue in Lakhs (₹)	District Revenue in Lakhs (₹)	
	Sea bass cage culture	3.92		
Dolahon	Pearl spot cage culture	0.40	7.65	
Palghar	Mud crab farming	3.09	7.03	
	Ornamental fish rearing	0.24		
Thane	Sea bass nursery	0.73	1.08	
Thane	Ornamental fish rearing	0.35	1.08	
Raigad	Sea bass cage culture	1.99	2.15	
Kaigau	Ornamental fish rearing	0.16	2.13	
	Sea bass cage culture	5.17		
	Pearl spot cage culture	1.47		
Ratnagiri	Ornamental fish rearing	0.22	7.97	
	Oyster farming	0.81		
	Mud crab farming	0.30		
	Sea bass cage culture	12.12		
	Pearl spot cage culture	4.91		
	Mud crab farming	0.03		
Sindhudurg	Ornamental fish rearing	2.13	38.43	
	Oyster farming	0.31		
	Mussel farming	2.60		
	Pearl spot nursery	16.33		
	Total	57.28	57.28	

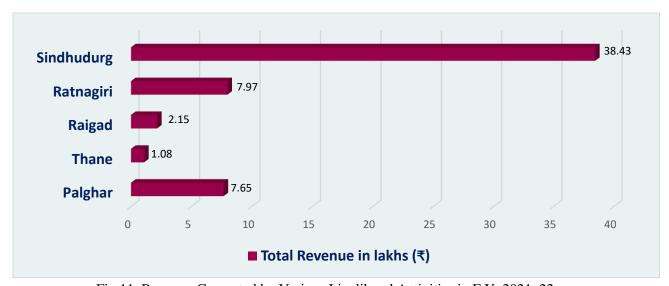


Fig.11. Revenue Generated by Various Livelihood Activities in F.Y. 2021–22



Fig.12. Harvested Asian Sea Bass



Fig.14. Green Mussel Farming



Fig.13. Harvested Pearlspot



Fig.15. Harvested Green Mussel

4.1.2 Other Livelihood Projects

A. Pearl spot breeding, Crab box culture and Integrated Multitrophic Aquaculture (IMTA) programme

The Mangrove Foundation has commissioned a project to ICAR-Central Institute of Brackishwater Aquaculture, Chennai, regarding the implementation of Pearl spot breeding and Crab box culture activity in Palghar, Ratnagiri and Sindhudurg district from December 2020. Under the said project, Recirculatory Aquaculture System (RAS) based Pearl spot hatcheries have been set up at selected sites in Palghar (Bhuigaon village), Sindhudurg (Varchi Devali village) and Ratnagiri (Devache Gothane village) districts.

Beneficiaries from all three villages were trained for pearl spot breeding and larval rearing. For crab box culture, SHG was selected from Marambalpada village in Palghar district, Adari village from Sindhudurg and Devache Gothane village from Ratnagiri district. For crab box

farming 400 crab boxes were provided to each SHG. In Sindhudurg district three integrated multitrophic aquaculture units were started under this project at Pankhol juva, Talashil and Waghavane villages. In all IMTA units, seeds of Asian seabass, Pearl spot fish, Tiger shrimp, green mussels and *Kappaphycus* seaweeds were stocked during F.Y. 2021–22.



Fig.16. RAS based Pearlspot Fish breeding unit at Bhuigaon, Palghar



Fig.17. Crab box culture at Marambalpada, Palghar

B. Ornamental fish (clownfish) hatchery at Airoli

A hatchery/master facility on marine ornamental fishes has been established on the premises of the Coastal and Marine Biodiversity Centre, Airoli since 2018. This hatchery is a joint venture of the Mangrove Foundation and the NBFGR and it comprises of various facilities such as seawater storage, filtrations, quarantine, broodstock development & maintenance, larval and juvenile rearing, live feed facility and disease diagnosis & treatment unit.

Based on the aquarium market demand, broodstock has been developed for 8 species of native clownfish, *Amphiprion sebae*, *A. frenatus*, *A. percula*, *A. ocellaris*, *A. clarkii*, *A. perideraion*, *A. akallopisos* and *Premnas biaculeatus*. Among them, mass-scale production has been standardized for three species *A. percula*, *A. ocellaris* and *A. frenatus* with indigenous RAS system. Clownfish seeds produced here are being supplied to the ornamental fish rearing units which have been established by the Mangrove Foundation across coastal Maharashtra.

During F.Y. 2021–22, 3,568 numbers of 2 months old clownfish juveniles were supplied to the rearing units of Sindhudurg and Ratnagiri districts. Beneficiaries have adopted the fish rearing protocols successfully and the juvenile fishes are further reared for another 2 months after which they can be sold to the market.

Apart from production of marine ornamental fish seeds, regular training programmes for the village beneficiaries who operate the ornamental fish units are conducted at the master facility.

During April 2021 to March 2022, five training programs were conducted for a total of 93 beneficiaries from Sindhudurg, Raigad, Palghar, and Ratnagiri districts.

4.2 Livelihood Development: Ecotourism activities

All the sites developed for Mangrove Ecotourism under the Mangrove Conservation and Livelihood Generation Scheme were more or less affected till December 2021 due to the covid related restrictions in the State in F.Y. 2021–22. Despite such adversity, the ecotourism initiatives of Mangrove Foundation have shown slow but steady progress; many developments have happened during the said timeframe and many ecotourism sites did host tourists in the beginning months of the year 2022.

Currently, ecotourism activities are ongoing in 9 villages (spread across 4 coastal districts of Maharashtra), and a total of 104 beneficiaries who are not having any major source of livelihood currently, are being benefited from this initiative.

Table 10: Villages developed for Mangrove Ecotourism under Mangrove Conservation and Livelihood Generation Scheme and revenue generated.

Ecotourism site	Total No. of beneficiaries	Funds given from Scheme (F.Y. 21–22)	No. of tourists visited	Income generated				
	Sindhudurg							
Nivti - Medha	13	-	97	21470				
Taramumbri	12	-	97	1,23,202				
Mithmumbri	12	-	-	-				
Achra	9	-	35	9,300				
	Ratnagiri							
Songaon	27	-	-	-				
Anjarle	10	-	51	15,200				
		Raigad						
Kalinje	6	-	42	12,600				
Diveagar	10	-	16	800				
	Palghar							
Marambalpada	5	9,00,000	-	-				
Total	104	9,00,000	338	1,82,572				

Details of some important works undertaken at the ecotourism sites in F.Y. 2021–22

➤ Information boards and signages have been installed at three ecotourism sites of Anjarle (11), Songaon (13) & Gaonkhadi (9). These installations will help create awareness among the visitors.



Fig.18. Information boards installed at Anjarle, Ratnagiri



Fig.19. Information boards installed at Songaon, Ratnagiri



Fig.20. Information boards installed at Anjarle, Ratnagiri

> Our trained beneficiaries have started taking nature trails and are interacting with tourists, giving them information on coastal and marine biodiversity mainly at Kalinje, Songaon and Diveagar.



Fig.21. Mangrove trail by Diveagar beneficiaries



Fig.22. Mangrove trail by Kalinje beneficiaries

Two new Ecotourism sites have been identified, Marambalpada in Palghar and Pawas in Ratnagiri district. Basic ecotourism guide training workshops have been conducted for the beneficiaries of Marambalpada, Palghar.



Fig.23. Mangrove trail by Pawas beneficiaries



Fig.24. Mangrove trail by Marambalpada beneficiaries

➤ Underwater marine life 3D lenticular display has been installed at Coastal and Biodiversity Centre, Airoli. It provides a panoramic view of the underwater life to the visitors with the 3D image-changing effect.



Fig.25. Underwater marine life 3D lenticular display mesmerising visitors

A container-based Mangrove Information Centre is being developed at Marambalpada in collaboration with InnerWheel Club. Concept designing & layout have been completed whereas content development and production of displays is on-going. Also, the fabrication of the containers of the centres is in progress and the centre will be open for visitors from June 2022.



Fig.26. Plan and location of Mangrove Information Centre at Marambalpada

A Mangrove Park is being constructed at Gorai, Mumbai. The speciality of this centre is that no or minimum damage to the mangroves is ensured while construction of this centre. The centre will have an uplifted board walk with glass flooring which will allow visitors to walk above the mangrove forest. Also, an interactive interpretation centre with an experience of the coastal and marine biodiversity using virtual reality technology will be prepared on site. A watch tower near the boardwalk will give a birds-eye view of the surrounding mangrove forest.



Fig.27. Elements of Gorai Mangrove Park

The total expenditure for ecotourism and related activities by Mangrove Foundation in F.Y. 2021–22 was ₹ 36 lakhs.

Table 11: Details of Eco-tourism related expenditures in F.Y. 2021–22

Sr. No.	Ecotourism related expenditures in E.V. 2021-22				
i.	Wall painting at Kanjurmarg area on Mangrove protection wall for creating awareness	1.50			
ii.	Installation of informative boards and signages at the Bhandup area of TCFS	4			
iii.	Setup of infrastructure for ecotourism related activities in the Bhandup area of TCFS	7.3			
iv.	Setup of Mangrove Information Centre at Marambalpada	9.2			
v.	Mangrove parks at Dahisar - FCA stage 1 clearance	14			
	Total				

5. Research on Coastal and Marine Biodiversity

In the F.Y. 2021–22, the total no. of on-going research projects commissioned/undertaken by the Mangrove Foundation were 23. The list of the on-going and completed research projects till the end of March 2022 is attached in Annexure-V.

1. Satellite tracking of Olive Ridley Sea Turtles

A research project was commissioned to Wildlife Institute of India (WII) to study the migration pattern of the Olive Ridley Sea Turtles off the coast of Maharashtra (first such initiative on the western coast of India). Five female Olive Ridley Sea Turtles were satellite tagged under this project from different beaches in the Ratnagiri district. These five turtles were named as Prathama, Savani, Vanashree, Laxmi and Reva. The findings of this project will help in understanding the movement patterns and migration of Olive Ridley Sea Turtles off the western coast of India and it may also reveal



Fig.28. Locations of Five Olive Ridley Sea Turtle tagging

information on the foraging grounds and other behavioural aspects of Olive Ridley Sea Turtles.

2. Study of Lichen flora from mangrove habitats in Maharashtra

The Mangrove Foundation has commissioned a project to the R.D. & S.H. National College, Mumbai, to study the Lichen flora from Mangrove habitats of Maharashtra. Presently, very little information is available regarding the lichen species found in mangrove habitats and hence this project will offer new insights in the matter. During the study period, surveys were carried out in mangrove areas of the coastal districts of Maharashtra and various samples of



Fig.29. Lichen flora from Mangrove habitat

different lichen specimens have been collected which will be identified after examination by an expert.

3. Comparative study of impact caused by Nisarg Cyclone along the coast of Maharashtra

A project has been commissioned to Srushti Conservation Foundation to study the impact caused by Nisarg Cyclone in mangrove and non-mangrove areas with special focus on Raigad and Ratnagiri districts. It was observed that major impact was noticed on the casuarina plantations along the beaches. Preliminary data suggests that height of the mangrove trees played crucial role in protection of the coastal areas and same was also confirmed during the socioeconomic surveys carried out during the project.

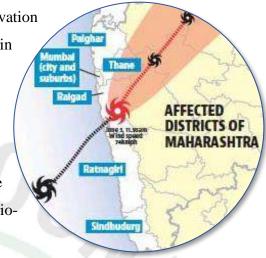


Fig.30. Track of Nisarg cyclone

4. Geospatial Study on Thane Creek

The GIS Cell of the Mangrove Foundation conducted a study regarding the shrinking of the Thane Creek (reduction of the water spread area) in Maharashtra. The study revealed that the width of the Thane Creek has reduced over time most probably due to siltation. Results of the study showed that the area of the creek in 1972 was around 70.15 Km² and that in 2020 it had reduced to 54.87 Km². Thus, an overall reduction of around 15.27 Km² in the area of the Thane Creek was recorded from 1972 to 2020.

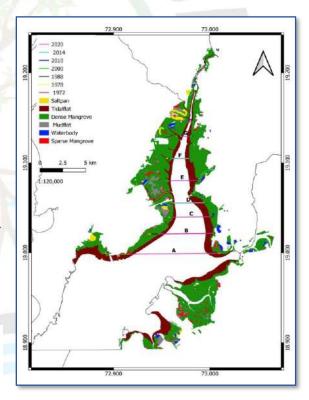


Fig.31. Expanse of Thane Creek

5. Research on the status of migratory waterbirds in ornithologically important wetlands of Maharashtra

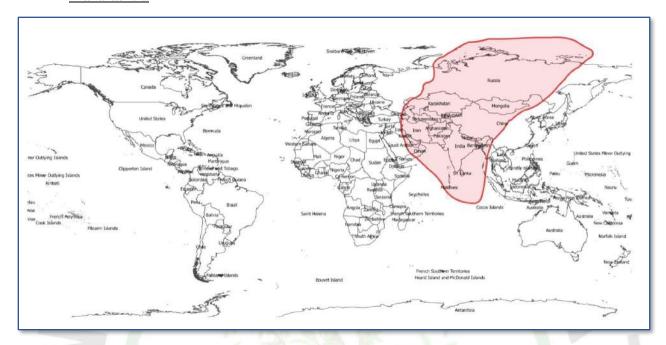


Fig.32. map of Central Asian Flyway

The Mangrove Foundation has commissioned a project to BNHS on the Central Asian Flyway (CAF) to study six ornithologically important wetlands in Maharashtra. CAF is one of the most important flyways among the nine flyways in the world which includes a huge area of Eurasia between the Arctic and the Indian Ocean. The wetlands selected for these studies are Jaikwadi Bird Sanctuary, Gangapur Dam, Nandhur-Madhmeshwar Wildlife Sanctuary, Hatnur Dam, Ujjani Reservoir and Visapur Dam. This study will help to understand the diversity, population and seasonal fluctuations of migratory waterbirds from these six wetlands. It will also help in understanding the movement patterns of these birds in India. The recommendations/outcomes from this study will be helpful for the Government in preparing CAF National Action Plan.

The expenditure on research programmes and related activities for the F.Y. 2021–22 was ₹ 1.01 Crores.

6. Coastal and Marine Biodiversity Conservation Programmes

6.1 Compensation scheme for the fishermen



Fig. 33. Sea turtle released by the fishermen

The Mangrove Cell and Mangrove Foundation in collaboration with the Fisheries Dept. of Maharashtra have initiated a joint compensation scheme wherein monetary compensation upto ₹ 25,000/- is given to fishermen for the damage they sustain due to cutting of their fishing nets in order to release a marine animal species protected under the Wildlife (Protection) Act, 1972 which get accidentally entangled in their fishing nets.

Under the said scheme, in F.Y. 2021–22, 101 fishermen were compensated for releasing protected marine species back into the sea safely for which a total amount of ₹ 13,77,500/- was released by the Mangrove Foundation as compensation to these fishermen. Of the 101 cases processed for compensation

in F.Y. 2021–22, 61 cases were of the release of Olive Ridley Sea Turtle, 21 cases were of Green Sea Turtle, two cases of Hawksbill Turtle, one Leatherback turtle, four cases of Guitarfish, four cases of Indo-Pacific Finless Porpoise and eight cases of Whale Shark.

Table 12: District-wise details of the compensation cases processed in F.Y. 2021–2022

Sr. No.	District	No. of cases Processed	Amount released as compensation in Lakhs (₹)	Protected species released by Fishermen
i.	Palghar	30	4.17	4 Giant Guitarfish, 1 Hawksbill Turtle, 21 Olive Ridley Turtle, 1 Leatherback Sea Turtle, 3 Indo-Pacific Finless Porpoise.
ii.	Thane	29	4.41	1 Green Sea Turtle, 1 Hawksbill Turtle, 1 Indo-Pacific Finless Porpoise, 20 Olive Ridley Turtle, 6 Whale Shark.
iii.	Raigad	13	1.47	3 Green Sea Turtle, 9 Olive Ridley Turtle, 1 Whale Shark
iv.	Sindhudurg	29	3.72	17 Green Sea Turtle, 11 Olive Ridley Turtle, 1 Whale shark.
Total 101		13.77	61 Olive Ridley Turtle, 21 Green Sea Turtle, 2 Hawksbill Turtle, 1 Leatherback Sea Turtle, 4 Giant Guitarfish, 4 Indo-Pacific Finless Porpoise, 8 Whale Shark.	

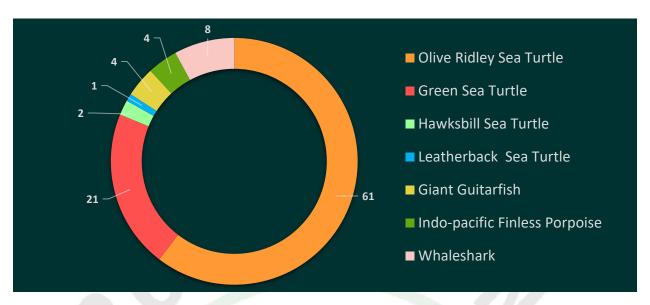


Fig. 34. Number of Species released by the fishermen under compensation scheme

6.2 Sea turtle conservation

In F.Y. 2021–22, the Mangrove Foundation conducted education and awareness programmes with respect to management of Olive Ridley Sea turtle nest hatcheries and collection of systematic data for turtle nest managers appointed by the Forest Department in Raigad, Ratnagiri and Sindhudurg districts.

The Mangrove Foundation also provided funds to the Roha (Raigad district), Chiplun (Ratnagiri district) and Sawantwadi (Sindhudurg district) divisions for the payment of the honorarium of the turtle nest managers in these districts. Table 13 shows the Olive Ridley Sea Turtle nesting data of Maharashtra for the nesting season 2020–21 and 2021–22.



Fig.35. Ex-situ turtle hatchery



Fig.36. Release of turtle hatchlings

Table 13: Olive Ridley Turtle nesting and hatchling release data from 2020–21 to 2021–22

	2020–21			2021–22				
District	Number of nests	Number of eggs	Number of hatchlings	Hatchling success	Number of nests	Number of eggs	Number of hatchlings	Hatchling success
Sindhudurg	164	17226	8769	50.9	306	34062	22684	66.59
Raigad	28	3211	2137	66.55	21	2600	1501	57.73
Ratnagiri	282	30362	12800	42.15	317	33609	10408	30.96
Total	474	50799	23706	46.66	640	70271	34593	49.22

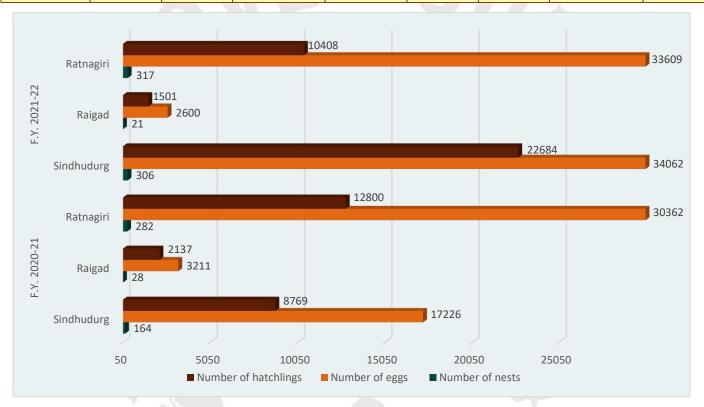


Fig. 37. Olive Ridley Sea Turtle Nesting & Hatchling Release Data from 2020–22 for Maharashtra

Along with the Olive Ridley Sea Turtle nests, during the nesting season of 2021–22, a total of three nests of Green Sea Turtles were also reported from Devbaug and Wayangani beaches in the Sindhudurg district.

Thus, the total expenditure of the Mangrove Foundation for various coastal and marine conservation measures such as compensation scheme for the fishermen and the turtle conservation activities in F.Y. 2021-22 was $\stackrel{?}{\sim} 60$ lakhs.

6.3 Management of marine animal stranding and development of Turtle Transit Centre

The Mangrove Foundation coordinates the activity of the marine respondent group in Mumbai for the management of stranded marine animals on the beaches in and around Mumbai. Furthermore, the Mangrove Foundation has also developed such networks in all the other coastal districts of Maharashtra where local citizen volunteers work along with the Forest Department officials for the management of stranded marine animals.

The Mangrove Foundation and the Mangrove Cell have established a Marine Animal Transit and Treatment Centre in Airoli which has facilities such as FRP tanks, medicines, operation table, water supply and visiting veterinary doctor etc. to rehabilitate injured sea turtles stranded on beaches in and around Mumbai and in F.Y. 2021–22, two Olive Ridley Turtles were treated at the Airoli centre. Also, a Hawksbill Turtle was treated at the centre and released back to the sea.

The Mangrove Cell is also in the process of setting up such centres in Raigad, Ratnagiri and Sindhudurg districts. The details and status of the work is mentioned in table 14.

Table 14: Status of Turtle Transit Centres in F. Y. 2021–22

Sr. No.	Name of Work	Tendered Amount (in Lakhs ₹)	Tender Date	Status of Work in F. Y. 21–22
1	Dapoli TTC, Ratnagiri	29.89	21-02-22	Work Order Given
2	Alibaug TTC, Raigad	12.50	07-02-22	Work Order Given
	Tondivali TTC Shed	16.73	15-03-21	Work completed upto Plinth
3	Tondivali TTC Operation theatre	9.75	15-03-21	level

Temporary Turtle Transit facilities were set up in Anjarle, Ratnagiri district and Taramumbri & Malvan, Sindhudurg district. In F.Y. 2021–22, seven Olive Ridley Turtles from Taramumbri, two Olive Ridley and two Loggerhead Turtles from Malvan and three Olive Ridley Turtles from Anjarle were treated and released back to sea.

Furthermore, the Mangrove Foundation provides regular funding to the Dahanu Forest Division for the regular functioning of the Turtle Transit and Treatment Centre at Dahanu. By the end of F.Y. 2021–22, 10 sea turtles (eight Olive Ridley, one Hawksbill and Green Turtle each) were being

treated at the Dahanu centre. The details of marine animal strandings along the coast of Maharashtra have been given in Table 15 and Table 16.



Fig. 38. Stranded sea turtle treatment at Marine Animal Transit and Treatment Centre, Airoli

Table 15: Marine animal stranding incidents along the coast of Maharashtra (F.Y. 2021–22)

Species	Live stranding	Dead stranding
Olive Ridley Sea Turtle	24	20
Green Sea Turtle	3	0
Hawksbill Sea Turtle	5	0
Loggerhead Sea Turtle	2	0
Indian Ocean Humpback Dolphin	0	31
Striped Dolphin	1	0
Indo-pacific finless Porpoise	2	8
Baleen Whale	0	1
Total	37	60

<u>Table 16: District wise marine animal stranding incidents along the coast of Maharashtra</u>
(F. Y. 2021–22)

Species	Palghar	Mumbai	Raigad	Ratnagiri	Sindhudurg	Total
Olive Ridley Sea Turtles	6	13	3	7	15	44
Green Sea Turtle	2	0	0	0	1	3
Hawksbill Sea Turtle	1	0	0	0	4	5
Loggerhead Sea Turtle	0	0	0	0	2	2
Indian Ocean Humpback Dolphin	3	24	2	2	-	31
Striped Dolphin	0	0	0	0	1	1
Indo-pacific Finless Porpoise	1	7	0	0	2	10
Baleen whale	1	0	0	0	0	1
Total	14	44	5	9	25	97

6.4 Procurement of Marine Rescue Vehicles

It was decided in the 4th Governing Body meeting of the Mangrove Foundation (dated 06/09/2021) that SGNP will procure 7 rescue vehicles for the rescue of marine animals along the coast of Maharashtra. These rescue vehicles will be equipped with all the necessary infrastructure and medicines, etc. and will be provided to the Forest Divisions of Dahanu, SGNP, Thane, Alibaug, Roha, Ratnagiri and Sindhudurg. A provision of Rs. 175 lakhs have been made for this venture by the Foundation and of these ₹ 60.11 lakhs were released to SGNP in F.Y. 2021–22 by the Mangrove Foundation.

The expenditure by Mangrove Foundation regarding marine stranding and rescue related activities in F.Y. 2021–22 was ₹ 75 lakhs.

7. Capacity Building Programmes and Exposure Visits

7.1 Capacity Building Programmes

In F.Y. 2021–22, the Mangrove Foundation conducted around 31 capacity building workshops wherein more than 380 participants were trained for livelihood activities, enhancing skills and much more. During the first half of the year most of the activities were conducted online owing to COVID-19 restrictions, later when the restrictions were lifted or relaxed, workshops were conducted on-ground. These includes workshops for beneficiaries under the Mangrove Conservation and Livelihood Generation Scheme, staff of Mangrove Cell and Mangrove Foundation and local sea turtle conservation groups.





Fig. 39. Ornamental Fish Rearing workshop for 20 beneficiaries from Sindhudurg

Fig. 40. Fish value addition workshop for 70 beneficiaries from Ratnagiri

7.2 Exposure Visits:

In F.Y. 2021–22, a total of 13 exposure visits of beneficiaries and staff of Mangrove Cell and Mangrove Foundation were organised. The Exposure visits comprised of visits to aquacultural projects, mangrove plantation sites, bird sanctuaries and sea turtle sites in Maharashtra.

Details regarding the capacity building activities and exposure visits are included in Annexure VI.

7.3 Awareness and Outreach programmes

Around 97 awareness activities and 41 talks were conducted throughout the coastline of Maharashtra targeting schools, colleges and general public for sensitizing them about mangroves, coastal and marine biodiversity of Maharashtra. Multiple mangrove and beach clean-up activities were also conducted to raise awareness about mangroves and the threats they face. In addition to

this multiple webinars, quiz, puzzles, crosswords, Instagram LIVE sessions, etc. were conducted for general public on environmentally significant days viz. International Day for Conservation of Mangrove Ecosystem, International Wetlands Day, Wildlife Week, World Wetland Day and so on. The sessions were kept open to all and free of cost.

Apart from this the Mangrove Foundation also published books viz. Bio-Sentinels of Maharashtra – coffee table book compiled by Mr. Raman Kulkarni and *Mase Janun Ghya* – authored by Dr. Nandini Deshmukh. Also, the quarterly issues of the Sonneratia magazine were published by the Foundation.



Fig. 41. Bio-sentinels of Maharashtra – a coffee table book released by the Mangrove Foundation



Fig. 42. Release of *Mase Janun Ghya* - Book authored by Dr. Nandini Deshmukh

Details regarding the awareness and outreach programmes are included in Annexure VII and list of publications by Foundation in F.Y. 21–22 in Annexure VIII.

7.4 Mangrove Foundation Awards

Since its inception, the Mangrove Cell and Mangrove Foundation has executed various mangrove and marine conservation programmes successfully which has contributed immensely towards the protection and conservation of the overall coastal ecosystem in Maharashtra. This has been possible due to the dedicated efforts of the staff of the Forest Dept., Mangrove Foundation, Self-Help Groups and many Citizen Volunteers. Thus, to recognize the efforts of the various individuals/groups involved in mangrove and marine conservation in Maharashtra, the Mangrove Foundation organised the 'Mangrove Foundation Awards' on 26 July 2021 i.e., on International Day for Conservation of Mangrove Ecosystem. Under this programme, awards were given under five categories. The categories and award winners for F.Y. 2021–22 were as follows:

- 1) Best Performing Self Help Group (SHG)
 - i. Sai Swami Shakti SHG, Sindhudurg
 - ii. Bhairavnath SHG, Sindhudurg
 - iii. Seemaradevi SHG, Ratnagiri
- 2) Best Performing Project Associates
 - i. Deepak Jadhav, Sindhudurg
 - ii. Chinmay Damle, Ratnagiri
 - iii. Saishwari Sangare, Raigad & Aniket Shirke, Palghar
- 3) Best Performing Livelihood Specialist
 - i. Kedar Palav, Sindhudurg
- 4) Best Performing Forest Officials
 - i. Chetana Shinde, Range Forest Officer, Bhiwandi
 - ii. Deepak Zugare, Forest Guard, MMCU
 - iii. Kundalik Burute, Forester, MMCU
- 5) Special Mention Award
 - i. Shaunak Modi, Director Coastal Conservation Foundation
 - i. Shehbaaz Bamne, Tourist Boat Operator and Guide TCFS





Fig. 43. Winners of award from 'Forest officials', 'Project Associates' and 'Special Mention' category.

Fig. 44. Sai Swami Shakti SHG - 1st winner of 'Self-help Group' category

7.5 Signing of MoU's for Clean-up

On the occasion of World Wetlands Day, the Mangrove Foundation signed eight MoU's with different organisations which conduct regular mangrove and beach clean-ups in Mumbai, Thane, Navi Mumbai and Palghar areas. Under this partnership the Mangrove Foundation extends logistical and technical support to these NGOs. The NGOs involved under this collaboration are Beach Please, With Them For Them, Nirdhar Foundation, Vanashakti, Mangrove Soldiers, Luna

Story Foundation, For Future India and Swachha Vasundhara Abhiyaan. Later in March 2022, the Foundation also signed a MoU with Shakti Plastics for collection and processing of recyclable waste form the clean-up sites.

Details regarding mangrove and beach clean-up are included in Annexure IX.

7.6 Women's Marathon - Mangrovethon

The Mangrove Foundation signed a MoU with Inner Wheel District 314 on 12 August 2021 regarding conducting various mangrove awareness activities for school students and general public. Under this partnership Women's Marathon called Mangrovethon was organised on 27 March 2022 in Airoli, Navi Mumbai. The marathon had three categories viz. 10 km, 5 km and 3 km run wherein more than 450 women participated.





Fig. 45. Mangrovethon - Women's Marathon

7.7 Special Publications

A. Development of Special Cover Post Cards on Flamingos

The Mangrove Foundation in collaboration with the Office of the Chief Postmaster General, Maharashtra Circle on the International Day of Forests i.e., 12 March 2022 released a Flamingothemed Special Cover (envelope) with a cancellation. The special cover depicts the two species of flamingos which visit Mumbai every year during the winter season. The special cancellation shows a Lesser Flamingo in the mudflat habitat. The cancellation was also integrated with an augmented reality mode in which flamingos could be seen feeding in a 3D mode after the cancellation is scanned through an android phone.



Fig. 46. Flamingo special cover (envelope) released at the hands of Smt. Veena Srinivasa, Poster Master General and Shri. Virendra Tiwari, APCCF, Mangrove Cell.



Fig.47. Flamingo special cover (envelope)

B. Release of Ishaan's Treasure book (Marathi version)

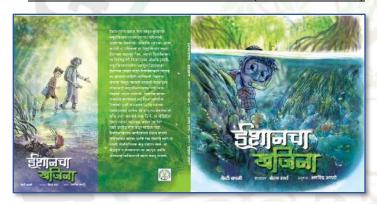


Fig. 48. Cover and Back page of Ishaancha Khajina

published the book 'Ishaancha Khajina' – a Marathi kid's story book authored by Ms. Katie Bagli. The book portrays the rich coastal and marine biodiversity of Mumbai through the eyes of a little kid known as Ishaan.

In F.Y. 2021–22 Mangrove Foundation

C. <u>Development of Theme-based Calendar</u>

The Mangrove Foundation designed the Calendar year 2022 based on the character of Ishaan from the Ishaan's Treasure book. The calendar shows Ishaan visiting various different coastal and marine sites every month which is depicted through colourful illustrations on the calendar.



Fig. 49. Cover page of Calendar

The total expenditure made by Mangrove Foundation for Capacity Building, Awareness and Outreach activities in F.Y. 2021–22 was ₹ 83 lakhs.

8. Corporate Social Responsibility (CSR) Initiatives

The Mangrove Foundation has partnered with multiple companies/institutions for raising CSR funds for various coastal conservation activities. The Mangrove Foundation has registered with the Registrar of Companies by filing the Form CSR-1 as this registration was mandatory for entities that undertake any CSR activity. The CSR Registration Number of Mangrove Foundation is CSR00024794.

During the F.Y. 2021–22, a MoU was signed with Inner Wheel District 314 for conducting multiple awareness programmes pertaining to mangroves, coastal and marine biodiversity of Maharashtra. The Mangrove Marathon 'Mangrovethon' was one of the awareness activities conducted under this partnership.

As per the MoU signed with United Way Mumbai in 2020 for mangrove plantation in Vikhroli, Mumbai; 5 ha. plantation has been successfully carried out at the site in F.Y. 2021–22 and United Way Mumbai is conducting regular clean-up drives at these sites in association with college students and corporates.

The list of on-going activities under CSR initiative are detailed below:

Table 17: On-going projects under CSR initiatives of the Mangrove Foundation

Sr. No.	CSR Partner	Initiative	MoU signed (Year)	Amount Committed in Lakhs (₹)	Amount Received till 2020–21 in Lakhs (₹)	Amount Received in 2021–22 in Lakhs (₹)
i.	Inner Wheel District 314	Awareness activities	2021–22	In kind (Event arrangements)	-	*
ii.	United Way Mumbai	Mangrove plantation in Ghatkopar, Mumbai	2020–21	32.97	9.65	12.50
iii.	Škoda Auto Volkswagen India Pvt. Ltd.	Mangrove plantation in Raigad district	2019–20	308.00	173.35	27.87
iv.	ICICI Bank Limited	Mangrove plantation in Ratnagiri district	2019–20	50.00	33.25	-

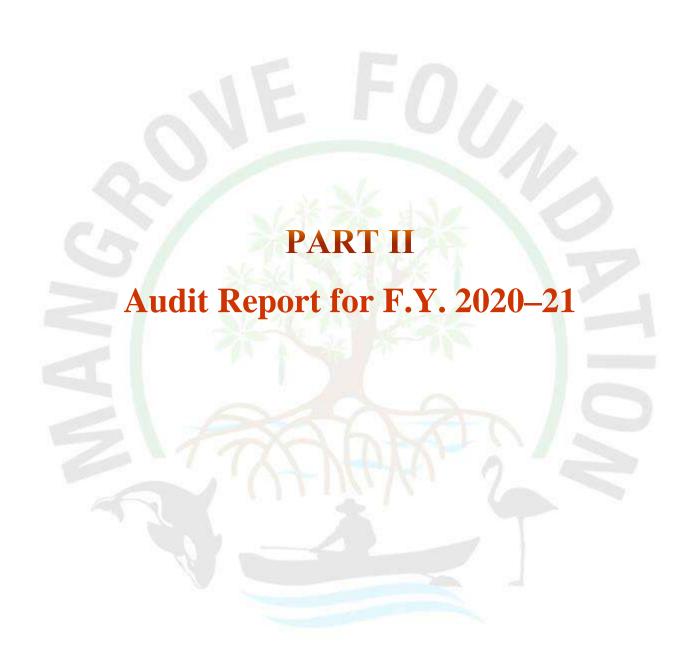
^{*} Funding provided for Mangrovethon – Women Marathon (₹ 15 Lakhs) and for development of Mangrove Biodiversity Information Centre at Marambalpada, Palghar (₹ 10.50 Lakhs)

The Mangrove Foundation has also received funds under CSR for various projects which are to be executed by Sanjay Gandhi National Park (SGNP). Since SGNP does not have CSR Registration number, the funds are presently being received by the Foundation and are then transferred to SGNP.

<u>Table 18: The details of the CSR projects of SGNP for which the Mangrove Foundation has</u>

<u>received funding are as follows:</u>

Sr. No	CSR Partner	Initiative	Project Initiation (Year)	Amount Committed in Lakhs (₹)	Amount Received till 2020– 21 in Lakhs (₹)	Amount Received in 2021– 22 in Lakhs (₹)
i.	Maharashtra Information Technology Corporation Limited (MAHA-IT)	Setting-up of Conservation Breeding Centre for Rusty Spotted Cat	2020-21	225.00	159.56	-
ii.	Adani Electricity Mumbai Ltd.	Procurement of Electric Vehicles for elderly visitors	2021–22	In kind	-	-
iii.	MAHA-IT	Development of new facilities for Mini-Zoo at SGNP	2021–22	65.00	-	-
iv.	Forest Development Corporation of Maharashtra (FDCM)	Procurement of Electric Vehicle (buggy) for nature education programme	2021–22	60.00	-	-
v.	Maharashtra Tourism Development Corporation (MTDC)	Up-gradation of wildlife hospital	2021–22	35.00	-	12.79





ASKA&CO.

Formerly Known as Ambekar Shelar Karve & Ambardekar Chartered Accountants

Auditors Report of Mangrove& Marine Biodiversity Conservation FoundationOf
Maharashtra

for the Year ended 31st March, 2021 [Annexure to Report under Section 33(2) and Rule
19 of The Bombay Public Trust Act, 1950]

To,
The Members,
MANGROVE & MARINE BIODIVERSITY CONSERVATION FOUNDTAION OF
MAHARASHTRA,
Bandra.

Report on the Financial Statements

We have audited the accompanying financial statements of MANGROVE & MARINE BIODIVERSITY CONSERVATION FOUNDTAION OF MAHARASHTRA, which comprise the Balance Sheet as at 31st March 2021 and the statement of Income & Expenditure Account for the year then ended, and a summary of significant accounting policies and other explanatory information.

Trust Management's Responsibility for the Financial Statements

Management is responsible for the preparation of these financial statements that give a true and fair view of the financial position, financial performance of the Trust, in accordance with the BOMBAY PUBLIC TRUST ACT, 1950. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Standards on Auditing issued by the Institute of Chartered Accountants of India. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error.

In making those risk assessments, the auditor considers internal control relevant to the Entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

Thane Branch: 612, Opal Square, S. G. Barve Road, Wagle Estate, Thane (West) - 400 604
Head Office: 501, Mirage Arcade CHS, Opp. Ganesh Mandir, off. Phadke Road, Dombivii (E)
421201

Contact: 96372 81405

Fmail: mangesh.ghanekar@ca-aska.com , info@ca-aska.com

In our opinion and to the best of our information and according to the explanations given to us, the financial statements of MANGROVE & MARINE BIODIVERSITY CONSERVATION FOUNDTAION OF MAHARASHTRA for the year ended March 31, 2021 give the information required by the relevant sections and rules of the BOMBAY PUBLIC TRUST ACT, 1950 in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India:

In the case of Balance Sheet, of the state of affairs of the Trust as at 31st March, 2021.
 In case of Income & Expenditure Account, of the Surplus for the year ended 31stMarch, 2021.

Report on Other Legal and Regulatory Requirements

Date: 27.01.2022

As required under rule 19 to the Bombay Public Trust Rules 1951, we furnish herewith statement of particulars as prescribed under the said rule.

Further, subject to our comments referred to in annexure attached herewith, we report that:

- We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit.
- b) In our opinion proper books of accounts as required by law have been kept by the Trust so far as appears from our examination of those books.
- c) The Balance Sheet and Income & Expenditure Account dealt with by this report are in agreement with the books of accounts.

For A S K A & Co.

Chartered Accountants

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Chartered Accountants Thank

WATCHEST!

d

F.R.No.122063W

CA Mangesh Ghanekar

(PARTNER) Place: Thane M.No. 149885

UDIN: 22149885AAAAAS7001

SCHEDULEIXC

Statement of income liable to contribution for the year ending on 31st March, 2021

Name of Public Trust MANGROVE & MARINE BIODIVERSITY CONSERVATION FOUNDTAION OF MAHARASHTRA

Registration No. F-66824

		Rs. P.	Rs. P.
(Sche	ome as shown in the Income & Expenditure Account edule IX)		34,81,13,586
II. Inc	ome not chargeable to contribution under Section 58		
	ule 32:		
(i)	Donations received from other Public Trust and Dharmadas.		
(ii) (iii)	Grants received from Government and Local authorities Interest on Sinking & Depreciation Fund.	6,00,72,518	
(iv) (v)	Amount spent for the purpose of secular education Amount for the purpose of medical relief		
(vi)	Amount for the purpose of Veterinary treatment of animals		
(vii)	Expenditure incurred from donations for relief of distress caused by scarcity, draught, flood, fire or other natural calamity	-	
(viii)	Deductions out of income from lands used for agricultural purposes : -		
	(a) Land revenue and Local Fund Cess (b) Rent payable to superior landlord		
(ix)	(c) Cost of production, if land are cultivated by trust Deduction out of income from lands used for non - agricultural purpose.		
	(a) Assessment, cesses and other government or Municipal Taxes		
	(b) Ground rent payable to the superior landlord(c) Insurance premium		
	(d) Repairs at 10 percent of gross rent of building(e) Cost of collection at 4 percent of the gross rent of the buildings let out		
(x)	Cost of collection of income or receipts from securities stock, etc. at 1 percent of such income		
(xi)	Deduction on account of repairs in respect of buildings not rented and yielding no income, at 10 percent of the estimated gross annual rent.		
Gross	Annual Income chargeable to contribution Rs. (I-II)		28,80,41,068

Certified that while claiming the deduction admissible under the above schedule the Trust has not claimed any amount twice, either wholly or partly, against any of the items mentioned in the Schedule which have the effect of double - deduction.

FOR MANGROVE & MARINE BIODIVERSITY CONSERVATION FOUNDATION

EXECUTIVE DIRECTOR

DATE: 27.01.2022

FOR A S K A & CO.
CHARTERED ACCOUNTANTS

CA MANGESH A GHANKEKAR (PARTNER)

M. NO. 149885 PLACE: THANE

UDIN: 22149885AAAAAS7001



THE BOMBAY PUBLIC TRUST ACT, 1950
SCHEDULE VIII [Vide rule 17(1)]
NAME OF THE PUBLIC TRUST: MANGROVE & MARINE BIODIVERSITY CONSERVATION FOUNDTAION OF MAHARASHTRA

Rs.	FUNDS AND LIABILITIES	202	BALANCE SHEET AS AT	31ST MARCH 2021		REGISTRATION NO.	F 66824
	PUNDS AND LIABILITIES	Rs.	Rs.	2019-20			1 50024
	TRUST FUNDS OR CORPUS-	100	RS.	Rs.	PROPERTY AND ASSETS	2020-2	1
1,23,38,000	RPCL (Pinelter Penelter Penelt				TROFERTI AND ASSETS	Rs.	Rs.
25,00,00,000	BPCL (Pipeline Project)- Conserv. Wildlife in TCFS	10000			IMMOVARI P PROPERTY		RS,
2.3,00,00,000	Made - Mumbhi Coastal Road Bertanet Comme	1,23,38,000	1		IMMOVABLE PROPERTIES		
		1,75,33,23,520		15400000			
25,00,00,000		51.58,00,000		1,51,96,223	FIXED ASSETS		
15,51,16,000	MSPDC (Paridos Tiscop)	25,00,00,000	- 1		- CONTRACTOR CONTRACTOR		1 70
					INVESTMENTS (SCHEDULE II)		1,79
	Corous Holiday resort in Alibana	15,51,16,000		3,88,33,16,000	PAYESTMENTS (SCHEDULE II)		
a same and have	MIDC Dombivili - Iving of pelluons C	5,92,000		5,66,55,16,000	Fixed Deposits	3.40 XIII	
1,15,71,00,000	Navi Mumbai International Airport - Corpus Fund	1,37,00,000			December 1		6,41,29,
Non-William Control	Navi Mumbai Transport - Corpus Fund	1,15,71,00,000			ADVANCES		00 T R 100 V
1,35,00,00,000	NUCCES (14		- 1	(5,22,545)	- Financial Assistance to UNDP Project	All III	
	NHSRCL (Mumbai-Ahemedabad Bullet Train) Corous Fund	3,36,60,000	N / III	30,000			
1,75,84,000	TATA Power Ltd - Project - Laying 220ky Elec Cable	1,35,00,00,000	1			2420400000	
	and the capit	1,75,84,000	5,25,91,53,520	41,625	- Deputy Conservator of Forest (Wildlife) Thous	30,000	
	FUNDS AND RESERVES		5,23,51,33,320		- Deputy Conservator of Forest, Alibag		
20.20 54 400	DAUG AND RESERVES		- 1	-	- Deputy Conservator of Forest, Dahanu	9,86,220	
20,39,54,120	- BNHS-MTHL Proj - Moitigation & Monitoring of Birds	Design Communication		80	Deputy Conservator of Forest, Dahanu		
8,16,000	- Funds to Purchase smartphones for Guards	17,68.21.560	- 1		- Deputy Conservator of Forest, Thane	5.00,000	
	CED Base & Guards	2.700014 2,5000	- 1	2,971	- Mangrove Foudation, Ratnagiri	80	
14,31,057	- CSR Funds From ICICI For Plantation	de suries		2,58,846	- Campa funds	3.030	
	- CSR Funds From MSRDC - For Plantation (DFO MMCU)	(5,16,084)	11	46,16,244			
84,16,945			- 11		- DFO MMCU-Foundation Budget	(9,11,775)	
3,44,000	BPCL (Pipeline Project) - Plantation / Afforestation	60,75,628	- 1	39,02,129	- DFO MMRDA Budget	60,78,407	
	cen residential Plantation / Afforestation		- 1	1,45,026	- Range Forest Officer, Malvan	13,23,098	
1,33,01,100		2,01,335	- 1	The Name of	Paninge Portest Officer, Mativan		
1,00,01,100		1,59,55,823		20,44,800	- Range Forest Officer, Ratnagiri	30,447	
		1,73,35,100		20,44,800	- Deposit Under Leave and License Agreement	800	
	- CSR Funde - United com Manual - DFO PUNCO	20,25,828			- Range Forest Officer - Alibaug	20,44,800	
17,74,836	- CSR Funds - Unitedway Mumbai - Mangrove Afforestation	9,65,995		1,508	- Sundry Recievables	39,958	
2,94,898				1000	CURRENT ASSETS	37,550	
2,74,098	- Fund-Construction of Office Container Hamman	17,74,836		1 02 20 F22			1,01,25
Sec. 2	- MSRDC - CRZ Clearance - Plantation Funds (DFO MMCU)	Name of the state		1,02,28,532	- TDS Receivable		
76,67,059	Fund for HDDP Plat Comparison Funds (DFO MMCU)	11,45,525		75,000	- Petrol Deposit	1,02,28,532	
77,844	- Fund for HDPE Fish Cage Net. GI Pipes - DFO MMCU					75,000	1.00.01
9,92,33,400		10,43,428			CACH AND DANKE	7.3,000	1,03,03
	- MISKLE - Habitat Improvement of TCFS 8, Admit V	77,844		43.44.40.550	CASH AND BANK BALANCE -(SCHEDULE -III)		
1,23,14,770	- NHSRCL - Plantation Fund for 07 Years	9,92,33,400		**/**/10/020	a) in bank accounts		
-	Plantation Funda for a regretary	1,23,14,770		44,576	b) Cash With trustee	5,56,94,306	
10,00,00,000	- Plantation Funds from KVTPL Adani Group					4,817	1000000
	+ MINISDA (MTHL Project) Interconstant	20,51,332	- 1	- 1		4,027	5,56,99
		10,00,00,000	11	1			
10,00,00,000	- MMRDA (MTHL Project) Marine Biodiversity Plan	36,50,94,972	- 1	- 1		1	
30,50,941	Plantation / CCB Foods (Plantation / CCB Food	10,00,00,000	- 1	- 1			
market and the second	- Plantation / CSR Funds from United Way NGO	10,00,00,00					
20000	- Fund for Pellet Feed of Sea Bass - DFO MMCH		- 1				
20,04,925	- UNDP SEED MONEY		- 1				
		10.48,206	90,26,49,498				
	OTHER LIABILITIES		20,20,45,498	1		. 1	
5.84.651 T	TDS Pavable			1		The state of the s	
March of March 19			II .				
100	Sundry Payables	3,10,348	- 1				
40,000 A	ludit fees Payable	1.0	- 1			1000	
35,275 P	rofessional Fees Payable	40,000					
THE PERSON NAMED IN		40,000	ROMAN TEST				
1/23		-	3,50,348				
T 00 0000 1 10	NCOME AND EXPENDITURE A/C						
5,06,99,216 B;	alance as per last balance sheet		II.				
a L	ess: Appropriations, if any	20,88,56,458	110			1	
5,81,57,242 Ad	de Completions, If any	,00,30,430	11				
A STATE OF THE PARTY OF THE PAR	dd:Surplus as per income & expenditure account						
Le	ess: Deficit	13,59,78,059					
- 1		1.000	34,48,34,517				
,35,29,666 TO	OTAL RS.		34,40,34,317				
77-7000 10		1					
	The state of the s		6,50,69,87,886	4,34,35,29,666			
Th	ne Above Balance Sheet to the best of My/ Our belief		10.100	1,34,35,29,666	No.	711.00	
Co	intains a true account of the Desiror My/ Our belief		1	*	70	TAL RS.	6,50,69,87,81
5457	minutes a true account of the Funds and Liabilities and of the			A.	s per our report of even date		18,10,00,00
1.00	operty and assets of the trust.		11	n.	per our report of even date	11100	11
			ll l			11 10 . 0	
FO	R MANGROVE & MARINE BIODIVERSITY CONSERVATION FOUNDTAION		11			//	
	CONSERVATION FOUNDTAION			Fo	or A S R & Co. Chartered Accountants	1100/	16.11
	100 100			Et	RN #22063W	Chartered	10
	1 100 (267)		ĮI			/ Gnartered	1011
	1 1		II II	3		- Accountants	1. 11
Exc	ecutive Director		11	- (A CC	MCCOUNTAINE	1. 11
200	The state of the s		II.	4		Thane	1 11
			- 11	cl	MANCECHICHANDER		
19600	te: 05.04:2022		11	LA	MANGESH GHANEKAR	FRN:122063V	NI II
Dat	1 0000000000000000000000000000000000000						
Dat	10000002				ARTNER)	11 / FKM. 122000	1. 11
Dat	NOT THE WAR				ARTNER) embership no. 149885	1 / FRIV. 122000	1. //

THE BOMBAY PUBLIC TRUST ACT,1950 SCHEDULE - IX [VIDE RULE 17(1)] NAME OF THE PUBLIC TRUST: MANGROVE & MARINE BIODIVERSITY CONSERVATION FOUNDTAION OF MAHARASHTRA

INCOME AND EXPENDITURE A/C FOR THE YEAR ENDED 31ST MARCH 2021

REGISTRATION NO. F 66824

2019-20		Expenditure	2020-21	2019-20	_		
	То	Fenouditure		2019-20	_	Income	2020-21
		Expenditure in respect of properties			By	Rent (accrued/realised)	
5,68,04,603	То	Establishment expenses	5,82,36,461		By	Interest(accrued/realised)	1159
		(As per SCHEDULE -IV)	introduce of area.	22,39,69,699	Dy	- On Fixed Deposits	27 17 52 442
-	To	Legal expenses			n	The second secon	27,17,52,442
40,000	То	Audit fees	1 11		By	Donations in cash or kind	6,00,000
	N.6791	The state of the s	40,000		-		
17,68,32,507	То	Expenditure on the objects of the trust	15,08,92,455		By	Grants/subsidies	
		(As per SCHEDULE -V)			By	Miscellaneous Income	
***	То	Mi- II		26,59,459 10,89,015		Revenue from CMBC, Airoli Accrued Income-UNDP SEED Money	34,81,063
	10	Miscellaneous Expenditure	-	6,69,27,642		Accrued/ Due Income	10,16,719 5,90,55,799
				96,332		Other Income Income under livelihood development scheme	39,81,901
29,07,795	То	Depreciation (as per schedule I)	29,66,611	110.00	anon		82,25,662
	т.		29,00,011	A 1	By	CSR Funds	*
	То	Amounts transferred to reserve & specific funds corpus fund	-				
5,81,57,242	-						
3,81,37,242	То	Excess of income over expenses	13,59,78,059				
29,47,42,147			34,81,13,586	29,47,42,147			
R MANGROVE & N	AARIN.	E BIODIVERSITY CONSERVATION FOUNDTAION	31,01,13,300	47,47,42,147		As per audit report of even date	34,81,13,586
						FOR ASKA & Co.	
10-						CHARTERED ACCOUTNANTS FRN 122063W Chartered	10,11
Recutive Director)					Accountants	10 1
ecutive Director						Thane	1 11
cedave Direction						CA MANGESH GHANEKAR FRN:122063	W/. //
						PARTNER MEM. NO. 149885	
	_					DATED AT : 05.01.2022	

ANNEXURES

Schedule I FIXED ASSETS AS ON 31 03 2021

	I		FIXED ASSETS AS	S ON 31.03.202	1			
	Opening Cost	Addit	ions	Deductions	Total Cost As on 31/03/21	Depreciation for	Rate of depre	Closing WDV As 0
Challer I Con Date I		First Half	Second Half					02/00/22
Civil Works for Redevelopment at Airoli	25,31,516		_		25 24 54 6	2.50.450		
Camera	2,41,670	-			25,31,516	2,53,152	10	22,78,364
Canon Xerox Machine	1,72,556			-	2,41,670	36,250	15	2,05,419
Computers	5,99,632	1,84,600	23,500		1,72,556	25,883	15	1,46,673
GPS	45,510	7,0 7,000	23,300	-	8,07,732	3,18,393	40	4,89,339
Ipad	46,488	*		-	45,510	6,827	15	38,684
Vehicle - Scorpio	9,97,507	-	21,08,236		46,488	6,973	15	39,515
Vehicle - Toyota Fortuner	2,27,307	-		*	31,05,743	3,07,744	15	27,98,000
Scanners	28,841		31,95,398	•	31,95,398	2,39,655	15	29,55,743
Video Conference Unit	88,193		+	-	28,841	11,536	40	17,305
Executive chair	26,256		-	-	88,193	13,229	15	74,964
Office Tables and Chairs	7,61,299	3,950	=======================================	-	26,256	2,626	10	23,631
Binoculars	2,32,501	- Contraction	55,000	-	8,20,249	79,275	10	7,40,974
Inverter	2,32,301	*	-	-	2,32,501	34,875	15	1,97,625
Refrigerator		-	40,000	-	40,000	3,000	15	37,000
Scuba Dive Equipment	7,19,933	-	15,900	•	15,900	1,193	15	14,708
Speed boat	20,86,400	•	*		7,19,933	1,43,987	20	5,75,946
Pantoon Boat		-	-	-	20,86,400	4,17,280	20	16,69,120
Vehicle-Honda city	4,63,559	-	*		4,63,559	92,712	20	3,70,847
Vehicle Tata Hexa	6,67,801	-	•	Ti I	6,67,801	1,00,170	15	5,67,631
Vehicle-Two wheelers	10,92,382	*	-	*	10,92,382	1,63,857	15	9,28,525
Vehicle - Mahindra Bolero	3,96,418	•	-	-	3,96,418	59,463	15	3,36,955
Vehicle - Mahindra TUV 300	6,12,016	-		-	6,12,016	91,802	15	5,20,214
Generator(Diesel) at Airoli Inerpr	5,97,278			•	5,97,278	89,592	15	5,07,686
EPABX	13,46,521	*	545	-	13,46,521	2,01,978	15	11,44,543
	43,037	-		*	43,037	6,455	15	36,581
Laptops LG Tv 55 "	5,50,740	-	58,150	-	6,08,890	86,972	15	5,21,918
LG TV 65"	1,32,192	-		(+)	1,32,192	19,829	15	1,12,363
	2,00,427	-		-	2,00,427	30,064	15	1,70,363
LG Tv 75 "	1,74,250	-	-	-	1,74,250	69,700	40	1,04,550
PA Mixer Amplifer	1,01,594	4		-	1,01,594	15,239	15	86,355
Hero Go Pro 7	31,093	5/5			31,093	4,664	15	
Printers	1,11,671	6,299			1,17,970	17,696	15	26,429
Projector & Projector Screen	96,943	(#)			96,943	14,541	15	1,00,275
					70,743	14,341	15	82,407
<u>Total</u>	1,51,96,223	1,94,849	54,96,184		2,08,87,256	29,66,611		1.79,20.645

SCHEDULE II FIXED DEPOSITS AS ON 31/3/2021

Particulars	Face value
FD with Canara Bank	95,91,16,000
FD with Union Bank of India	45,00,000
FD with Punjab National Bank	5,44,93,23,520
TOTAL	6,41,29,39,520



SCHEDULE -III CASH & BANK BALANCES AS ON 31.03.2021

PARTICULARS	TOTAL
Canara Bank-FCRA A/c	1,000
Canara Bank-Savings A/c	4,11,33,036
Punjab National Bank	1,33,05,546
Union Bank of India	10,99,857
IDBI	1,20,039
Indian Overseas Bank	34,828
Cash balance	4,817
TOTAL	5,56,99,123

SCHEDULE -IV ESTABLISHMENT EXPENSES

PARTICULARS	TOTAL
Advertisments	1,59,912
Professional Fees to Staff	98,62,874
Airoli Centre - Staff, Security Staff Souvenir Shop	24,87,415
Airoli Interpretation Centre - Maintenance Cost	41,34,248
Bank Charges	27,901
Electricity Expenditure	3,49,410
Telephone, Stationery Exp	42,722
Fuel & Maintenance Cost (Vehicles and Boat)	46,92,289
Meeting Expenses	65,881
Office Expenses	33,35,020
Professional Fees to Steno / Clerks / Peons	1,91,19,785
Renovation / Repair Works of New Office at CST	NAME OF THE OWNER OWNER OF THE OWNER O
Rent for DFO MMCU Office	15,31,459
Rent for Office at CSTM	17,56,920
Rent for RFO Palghar Office	96,51,456
Rent for RFO Ratnagiri Office	1,61,352
Rent of RFO Malvan's Office	1,89,706
Stationery	3,45,602
	1,19,825
Telephone Expenditure Travel Expenses	1,79,793
TOTAL	22,890
TOTAL	5,82,36,461

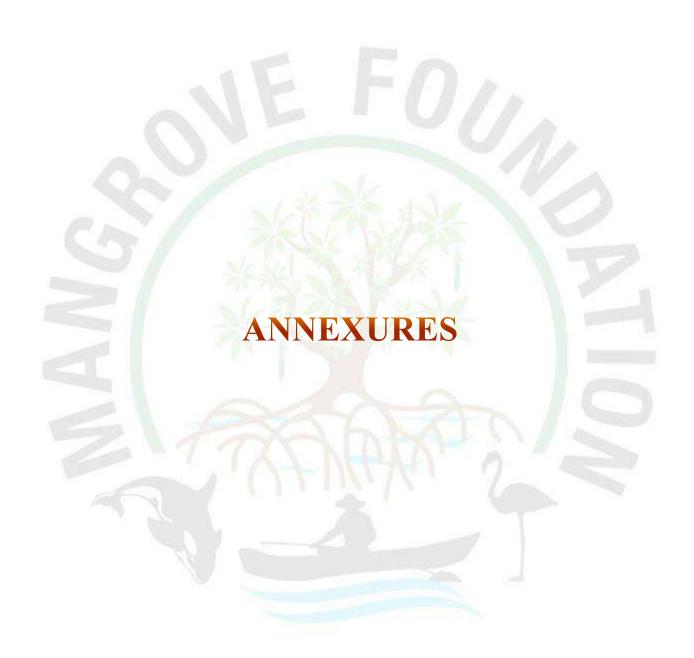
SCHEDULE -V EXPENDITURE ON OBJECTS OF TRUST

PARTICULARS	TOTAL
1. Capacity Building	
Conferences, Workshops, Trainings, Events	11,59,040
Exposure Visits	2,47,451
ICAR NBFGR - TRAINING	3,54,100
2. Research and Projects	3,5 1,100
Research on Various Coastal and Marine Biodiversity	18,66,500
Small Grants Programme for Research Projects	3,52,892
BNHS - Elucidating the Migratory Routes-Water Birds	4,37,000
CIBA - Mapping of Coastal Resources, Brackishwater	3,00,000
IISST - Monitoring of Health of Mangrove Species	-//
IWST-Development of Integrated Pest Mgmt Strategies	(9,223
IWST- Wood Anatomical studies of Imp Mangrove specie	(2,375
IWST- Development of Integrated test mgt - Phase 2	4,00,000
IWST-Development of Procedure for Forensic Identifi	10,13,000
M turtle Android App - S N M	1,00,000
WII- Reorganisation of Malvan Marine Sanctuary	25,22,065



101710	15,08,92,455
TOTAL	8,16,000
Smart Phone / Laptops / Computers From Earmarked Fund	66,23,631
HDPE Cage Net - DFO MMCU For Earmarked Fund	10,25,113
Plantation Exp Unitedway - Earmarked Funds	4,28,197
Plantation Exp - BPCL MSRDC - Earmarked Funds	5,54,373
Plantation Exp CSR funds - DFO MMCU Earmarked	5,16,084
Plantation Exp CSR funds - ICICI Bank Earmarked	
Pellet Feed Expenses - DFO MMCU for Earmarked Funds	78,84,000
Office Container for RFO Bhivandi 294898	2,94,898
Chain link Fencing Anik - Exp from CSR Ajmera	2,71,42,560 23,41,317
BNHS - Bird Monitoring & Mitigation Measures	10,16,719
Proffesional fees for UNDP Seed money	11,77,659
Cricket Assesment Drainage	
High Resolution Mapping of Mangove Forests of MMR	6,63,000
Mangrove Stations	31,11,546
Construction of Protection Wall	64,77,421
Expenditure from MMRDA Funds	
10.Expenditure From Earmarked Funds	2,31,003
Other Activities	2,51,065
9. Miscellanous	74,076
Preservative Expenses on Marine Stranded Animals	74,676
MArine Stranding Related Exp	12,05,515
Establishing Stranding Management Centre - Dahanu	4,73,870
Establishing Marine Stranding Centre - Airoli	1,70,203
8. Marine Stranding and Rescue Centre	3,13,070
Turtle Conservation Activities	3,13,670
Joint Patrolling -with Fishery, Police, Coast Guard	6,72,000
Honorarium to Beach Managers for Turtle Conservatin	29,54,378
Compensatation to Release Marine Animals From Nets	20,86,400
7. Coastal and Marine Conservation Measures	0,22,00,000
Security Personnel Cost - (Mah. State Secu. Corp.)	3,22,39,853
Plantation and Restoration of Degraded Mangrove Are	71,22,371
Other Protection Measures	76,12,430
6. Magrove Protection Framework	
Website Cloud Maintenance	53,233
Solidwaste Management Documentary	2,97,950
Newsletter - "Sonneratia"	4,500
MahaOnline Ltd - Website development of Mangrove Cell	2,92,675
Communication and Distribution Material	20,08,105
Clean Mangrove Campaign	4,22,384
5. Communication and Awareness	
Infrastructure at Potential Ecotourism Sites	22,20,876
	14,23,434
Development of Mangrove Parks Promotion of Ecotourism Site	20,56,605
TA DA to Project Associates 4. Ecotourism	
	2,15,675
Ornamental Fish Farming Related Expenses Purchase of Crablets	9,74,53
CIBA - Brackishwater integrated Multrophic Cage Cul	30,00,000
CIBA - Brackishwater integrated Multi-	•
Professional Fees to Project Associates for SCHEME	17,08,000
Construction of Multi Species Hatechery at Vengurla	85,79,86
SCHEME - Mangrove Cons. Livelihood Gen Exp	30,24,64
Ornamental Fish Master Facility at Airoli	20,580
Livelihood Related Activities Along the Maha. Coast	20 50
3. Livelihoods	-
R D College- Documentation of Mangrove & Associates	6,00,00
WII- Tracking Nearshore & Migratory Movement of Sea turtles	1



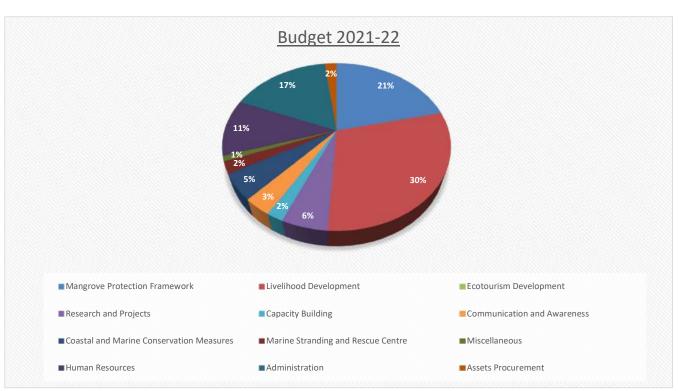




PART - A of FINANCIAL BUDGET FOR FY - 2021-22

in Rs. Lakhs

Sr. No.	Budget Head	Approved % Range	% to Total Budget	Budget	Expenditure	Expenditure %
A	Mangrove Protection Framework	20% - 30%	21%	640	545	85%
В	Livelihood Development	20% - 30%	30%	690	327	47%
С	Ecotourism Development	20% - 30%	30%	200	36	18%
D	Research and Projects	05% - 10%	6%	166	101	61%
Е	Capacity Building	02% - 05%	2%	60	35	58%
F	Communication and Awareness	02% - 05%	3%	100	48	48%
G	Coastal and Marine Conservation Measures	02% - 05%	5%	150	48	32%
Н	Marine Stranding and Rescue Centre	00% - 2.50%	2%	70	75	106%
I	Miscellaneous	00% - 2.50%	1%	30	5	17%
J	Human Resources	10% - 20%	11%	330	379	115%
К	Administration	10% - 20%	17%	504	338	67%
L	Assets Procurement	00% - 2.50%	2%	60	16	27%
	Total		100%	3,000	1,952	65%

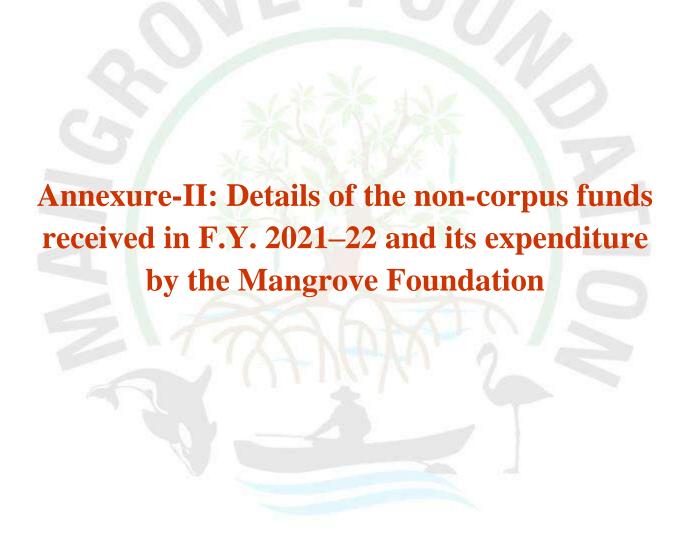


Mangrove and Marine Biodiversity Conservation Foundation of Maharashtra Part - A - Expenditure Statement for FY 2021-22

Sr. No.	Particulars	Budget FY 2021-22	Actual Expenditure
1	MANGROVE PROTECTION FRAMEWORK		
	Mangrove Plantation and Restoration of Degraded Mangrove Areas	130	4
	Maharashtra State Security Corporation (183 Security Personnel)	460	483
	Other Protection Measures (including Encroachment Reomoval, Hello Forest Facility, Campus Development at Borivli Range Office, Legal Fees to Advocates, etc)	50	58
	TOTAL MANGROVE PROTECTION FRAMEWORK	640	545
2	ECOTOURISM AND LIVELIHOODS ACTIVITIES		
	Livelihood Activities along the Maharashtra Coast		
	SCHEME 'Mangrove Conservation and Livelihood Generation' related expenses	90	217
	Livelihood Projects along the Maharashtra Coast	60	Ş
	Construction of Multi Species Hatchery at Vengurla (including consultancy for DPR Preparation)	450	-
	CIBA Project - Brackishwater Cage Culture with multi trophic candidate species in diverse rearing systems for alternate livelihood and societal development Project	30	37
	Ornamaental Fish Master Facilty at Airoli (Including Project to NBFGR - Marine Ornamental Breeding Centre)	60	64
	Sub - Total of 'Livelihood Activities along the Maharashtra Coast'	690	327
	Ecotourism Activities along the Maharashtra Coast		
	Infrastructure at Potential Ecotourism Sites; Interpretation / Information Centre related works (Procurements, Events, innaugurations, awareness drives, etc)	60	15
	Promotion of Ecotourism Sites (Short documentaries, Print & Electronic Media, etc; Interpretatiion Materials, Boards, Signages, Banners, Boards, Panels, etc)	40	7
	Sub - Total of 'Ecotourism Activities along the Maharashtra Coast'	100	22
	Mangrove Parks ; Support to Ecotourism by local communities		
	Dahisar Mangrove Parks Development (Consultant's Fees, etc)	25	14
	Gorai Mangrove Parks Development (Consultant's Fees, etc)	25	-
	CMBC 2nd Phase - Giants of the Sea Museum (Consultant's Fees, etc)	25	-
	Bhandup Bird Park (Consultant's Fees, etc)	25	-
	Mangrove Park at Dahisar (Remuneration to Internal Project Coordiantor)	<u> </u>	
	Sub - Total of 'Mangrove Park at Dahisar; Support to Ecotourism by local communities'	100	14
	Sub - Total of 'Ecotourism Development'	200	30
	TOTAL ECOTOURISM & OTHER LIVELIHOODS RELATED ACTIVITIES	890	363
2	RESEARCH & PROJECTS		

Sr. No.	Particulars	Budget FY 2021-22	Actual Expenditure
	BNHS - Migratory Birds Project	56	54
	WII Project - Reorganization of Malvan Marine Sanctuary (Total Project Cost Rs 40.05 Lakhs)	11	-
	CIBA - Mapping of Coastal Resources and identifying suitable Brackish water areas for integrated multi tropic aquaculture (IMTA) in Maharashtra	3	3
	IIST - Monitoring Health of Mangroves of Maharashtra State using near real time satellite remote sensing data	-	-
	IWST - Development of Integrated Pest Management (IPM) strategies against the major defoliating pests of mangroves in the Thane district of Maharashtra (Phase - II)	4	-
	IWST - Development of Procedures for forensic identification of illegally cut mangrove trees using molecular marker techniques	8	8
	Project - Studying the incubation temperature of nesting population of Olive Redli Turtles in Coast of Maharashtra - Ms. Sumedha Korgaonkar (Phase - III)	1	2
	Ela Foundation - Survey of Otter and crocodiles in Mangrove Habitats of Ratnagiri Districts	2	-
	BNHS - Diversity and Distribution of Gobiid Fishes	4	-
	CMFRI - Oyster Projects - Palghar	4	-
	WII - Tracking Nearshore and Migratory Movements of Sea Turtles	4	2
	KCRT - Cetacean Study Sindhudurg	8	6
	SNM - M-Turtle Mobile App	1	1
	Other New Projects	30	20
	Sub - Total of 'Research & Projects'	136	95
	Small Grants Programme		
	SACON - Documentation of Fauna from Tide Pool	3	2
	SACON - Mapping Biological Diversity in Caves	3	2
	CES-IISc - Conservation Genetics of Humpback Dolphins	3	-
	Alissa Barnes - Characterising Diversity etc of Ray Fisheries	3	-
	Dakshin Foundation - Identifying Nursery Grounds B.N. Bandodkar College - L-Asp[araginase from Mangroves	2	<u>-</u> 1
	Tuljaram Chaturchand College - Survey for Mapping and Distribution of important mangroes species	2	1
	Siddhesh Bhogte - Distribution of White Belied Sea Eagle along coast of Mahrashtra	-	-
	Swapnil Tandel - Study on Whale Shark distribution in Raigad and Sindhudurg	-	-
	New Small Grants Project	14	2
	Sub - Total of 'Small Grants Programme'	30	6
	TOTAL RESEARCH & PROJECTS	166	101
4	CAPACITY BUILDING		
	Conferences, Workshops, Trainings, Events and Exposure Visits	60	35
	TOTAL CAPACITY BUILDING	60	35
5	COMMUNICATION & AWARENESS		
	Publication of Communication and Awareness Materials, Short Documentary Films, etc	<i>50</i>	43
	Clean Mangrove Campaign	30	4
	Young Marine Scientist Conference for School Children	15	-
	Project for Website-Cloud Maintainance	5	1
	MahaOnline Ltd - Website Development for Mangrove Cell Mumbai	-	-
	TOTAL COMMUNICATION & AWARENESS	100	48
6	COASTAL AND MARINE CONSERVATION MEASURES		

Sr. No.	Particulars	Budget FY 2021-22	Actual Expenditure
	Introduction of Square Mesh Net ; Joint Patrolling (Along with Fishery, Police, Coast Guard) ; Compensation for release of marine animals entangled in fishing nets, Turtle Conservation activities	150	48
	TOTAL COASTAL AND MARINE CONSERVATION MEASURES	150	48
7	MARINE STRANDING AND RESCUE CENTRE		
	Marine Stranding and Rescue Centre related expenses	70	75
	TOTAL MARINE STRANDING AND RESCUE CENTRE	70	75
8	MISCELLANEOUS		
	Miscellaneous and Other Activities	30	5
	TOTAL MISCELLANEOUS	30	5
9	HUMAN RESOURCES		
	Professional Fees to staff of Mangrove Foundation	150	126
	Professional Fees to contractual staff hired through Manpower Agency	180	253
	TOTAL HUMAN RESOURCES	330	379
10	ADMINISTRATION		
	Office's Rent of Mangrove Foundation's Office	97	97
	Office's Rent (DFO MMCU, RFO Malvan and RFO Alibaug)	30	28
	Borivali RFO Office / Residence, Staff Quarters Development	50	23
	Interior Renovation / Repairs in Office of Mangrove Foundation	20	2
	Office Expenses (Electricity, Telephone, Internet, Stationery , Printing, Postage, Audit Fees, etc)	90	77
	Coastal and Marine Biodiversity Centre, Airoli (Recurring Expenditures, Security staff, Souvenir shop staff)	90	47
	Fuel and maintenance Cost (Vehicles and Boat)	90	58
	Advertisements	15	6
	Logistical arrangements (Accommodation, Air/Train/Bus/Local Travel, Refreshements etc)	14	-
	Group Insurance Premium	8	-
	TOTAL ADMINISTRATION	504	338
11	ASSETS PROCUREMENTS		
	Procurement of Vehicles	40	7
	Procurement of Electronic Items (Desktops, Laptops, Printers, Projector & Screen, TV etc)	10	7
	Procurement of Furnitures & Fixtures (Chairs, Tables, Sofa, storage racks etc.)	10	2
	TOTAL ASSETS PROCUREMENTS	60	16
	GRAND TOTAL	3,000	1,952



PART - B of FINANCIAL BUDGET FOR FY - 2021-22

Sr. No.	Budget Head	Budget in Rs. Lakhs	Expenditure in Rs. Lakhs
1	BNHS - MTHL Project [5th Instalment]	337.67	337.67
2	Mangrove Plantation from CSR Funds	149.06	59.50
3	Chain Link Fencing - CSR Funds from Ajmera	60.76	46.30
4	Habitat Improvement of TCFS - Bullet Train (NHSRCL)	200.00	-
5	MMRDA - MTHL Project	1,611.00	105.00
6	UNDP SEED Funds	6.20	6.31
7	MMRDA - Tree Felling Cost (DFO - CAMPA) Funds	0.78	-
8	Funds for HDPE Fish Cage Net, GI Pipes - DFO MMCU	10.43	2.85
9	Conservation breeding of the rusty spotted cat - CSR Funds	159.55	80.00
10	MTDC - Medical Equipments at Wildlife Hospital at SGNP Mumbai - CSR Funds	-	12.79
	Total	2,535.45	650.42

Mangrove and Marine Biodiversity Conservation Foundation of Maharashtra Part - B - Financial Expenditure for Earmarked Funds for FY 2021-22

Amount in Rs. Lakhs

		l				Tourt III KS. Lukiis
Sr. No.	Particulars	Total Funds Received	Amount Spent till FY 2020-21	Balance Funds in hand	Proposed Budet for FY 2021-22	Actual Expenditure FY 2021-22
1	BNHS - MTHL Project "Implementation of Flamingos and Birds related mitigation measures and birds' monitoring programme for Mumbai Trans Harbour Link (MTHL) Project" This fund is to be released to BNHS in installments within the project period of 10 years	3,192.73	1,424.52	1,768.21	337.67	337.67
2	Mangrove Plantation					
2.1	Mumbai-Ahemedabad Bullet Train Project - by National High Speed Rail Corporation Limited (NHSRCL) As per CRZ Clearance "Based on the current data on mangrove felling, the Mangrove Cell, Thane, Forest Department, Government of Maharashtra shall prepare a comprehensive mangrove plantation and management and protection of Mangrove and the same shall be implemented by the Mangrove Cell, Forest Department, Government of Maharashtra during the course of execution of the project. This plan is for additional mangrove plantation in the ration of 1:5 mandatory requirements under CRZ regulation. Requisite funds for the same are to be deposited to Mangrove Cell." According to this clause Mangrove Cell Mumbai will be undertaking comprehensive mangrove plantation, management plan for plantation, management and protection of mangroves in 1:5 ratio which calculates for approximately 36.05 ha of mangrove plantation with estimated cost of Rs. 1,23,14,770/- for 07-year-plantation-operation.	123.15	-	123.15	54.00	-
2.2	Project - Laying of 18" Dia. Petroleum pipeline in Thane Creek Flamingo Sanctuary (TCFS) - by Bharat Petroleum Corporation Limited (BPCL) Received funds from BPCL towards Afforestation Cost as per directions of State Board of Wildlife To be utilzed for Plantation in Navi Mumbai (03 ha)	3.44	-	3.44	3.44	0.42
2.3	Maharashtra State Road Development Corporation Limited (MSRDC) Received funds from MSRDC towards Plantation Activity as per CRZ Clearance to be expended by DFO MMCU To be utilized for Plantation in Navi Mumbai (03 ha)	14.31	-	14.31	14.31	0.84
2.4	CSR Funds for Plantation - from Skoda Auto Volkswagen India Pvt Ltd Received Rs. 1,33,01,100/- as a CSR Funds towards "Programme of Mangrove Afforestation". This is a 07 year plantation programme. Rs. 1,33,01,100/- Is received for 01st year's operation. Rs. 40,34,100/- Is received for 02nd year's operation. The company voluntarity desires to extend financial support of total Rs. 3,08,23,600/- over the course of 07 yerars (From Nov 2019 to Nove 2026) to Foundation to implement the "Programme of Mangrove Afforestation" in 100 Ha of degraded land in Alibaug. Funds will be received in Foundations' A/c as per Payment Schedule annexed to MOU. Foundation shall provide each annual and a consolidated Utilization Certificate for the funds Utilized.	173.35	-	173.35	25.00	34.36

No.	Particulars	Total Funds Received	Amount Spent till FY 2020-21	Balance Funds in hand	Proposed Budet for FY 2021-22	Actual Expenditure FY 2021-22
2.5	CSR Funds for Plantation - as per tripatriate Agreement with M/s Unitedway NGO Received Rs. 13,27,740/- and Rs. 17,23,200/- as 1st and 2nd Instalment as per tripatriate Agreement entered with M/s Unitedway NGO, DFO MMCU. This fund is to be utilised for plantation purposes. This fund has be to be given back to DFO MMCU on its demand (Add Location and Ha)	30.51	6.10	24.41	-	10.44
2.6	CSR Funds for Plantation - as per Agreement with M/s Unitedway NGO Received Rs. 9,65,995/- as 1st Instalment as per Agreement entered with M/s Unitedway NGO. This fund is to be utilised for plantation purposes for 10 Ha in Vikhroli (05 Ha in 2020-21 and 05 Ha in 2021-22) This fund has be to be given back to DFO MMCU on its demand	9.66	-	9.66	7.95	8.99
2.7	CSR Funds for Plantation - from ICICI Bank Ltd To undertake Mangrove Plantation Initiative Received Rs. 33,25,000/- from ICICI Bank Ltd towards 1st year operation funds for undertaking mangrove plantaion initiative of approximately 1,10,000 mangroves / mangrove associates on 25 hectares of barren forest land in Ratnagiri District of Maharashtra through community participation and nurture the same for 03 years	33.25	33.25	-	23.85	4.45
2.8	Kharghar Vikhroli Transmission Line Pvt Ltd (Adani Group) Received deposit of Rs. 20, 51,332/-(Rupees Twenty Lakhs Fifty One Thousand Three Hundred Thirty Two Only) towards the 3.5 ha afforestation cost towards compliance of directions of Hon'ble Bombay High Court in Writ Petition No.96276 of 2020 Dtd. 04/02/2021 for the Project "Laying 400 KV Kharghar- Vikroli Transmission Line in Raigad, Thane and Mumbai Suburban District in the State of Maharashtra"	20.51	-	20.51	20.51	-
	TOTAL Mangrove Plantation	408.18	39.35	368.83	149.06	59.50
3	CSR Funds Chain Link Fencing - from Ajmera Realty & Infra India Limited Received Rs. 84,16,945/- as a Financial Assistance under CSR for the purpose of Mangrove Protection through Chain Link Fencing in Anik District Kurla CTS no. 3P Survey no. 171 (L=550.00 Rmt and CTS no. 1P Survey no. 173 (L=750.00 Rmt) The development of Chain Link Fencing shall be undertaken by MMCU. Mangrove Foundation shall issue Utilization Certificate on completion of Chani Link Fencing.	84.17	23.41	60.76	60.76	46.30
4	Habitat Improvement of The Thane Creek Flamingo Sanctuary and adjoining forests Mumbai-Ahemedabad Bullet Train Project - by National High Speed Rail Corporation Limited (NHSRCL): Deposit of 2% of cost of proposed project towards Habitat Improvement of The Thane Creek Flamingo Sanctuary and adjoining forests	992.33	-	992.33	200.00	_
5	MMRDA - MTHL Project Funds (Non-Corpus) - Annexure Attached	6,131.00	479.54	5,651.46	1,611.00	105.00
	UNDP SEED Funds	50.00	38.52	11.48	6.20	6.31

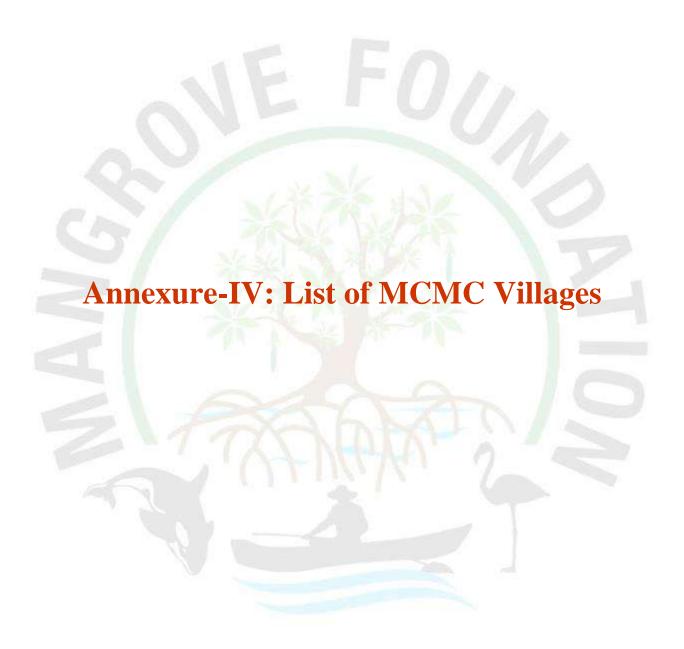
Sr. No.	Particulars	Total Funds Received	Amount Spent till FY 2020-21	Balance Funds in hand	Proposed Budet for FY 2021-22	Actual Expenditure FY 2021-22
7	MMRDA - Tree Felling Cost (DFO - CAMPA) Funds Funds received from MMRDA as a Tree Felliing cost for diversion of 3.3 Ha Forest Land for construction of Car Maintenance Yard of Metro Piers at Malvani. This funds are deposited by MMRDA in Foundaion's fund as per the letter from DFO MMCU.	0.78	-	0.78	0.78	-
8	Funds for HDPE Fish Cage Net, GI Pipes - DFO MMCU	76.67	66.24	10.43	10.43	2.85
9	CSR Funds for Conservation breeding of the rusty spotted cat	159.55	-	159.55	159.55	80.00
10	CSR Funds from MTDC for Medical Equipments at Wildlife Hospital at SGNP Mumbai	12.79	-	12.79	-	12.79
	<u>TOTAL</u>	11,108.20	2,071.58	9,036.62	2,535.45	650.42

	Statement showing Budget and Expenditures from MMRDA - MTHL Project Funds							[in Rs. Lakhs]				
			Component /Sub- component	Particulars	Grand Total of Componen ts	Mangrove Cell	Other Agencies	MMRDA Funds	Total Expendit ure Done	Balance Budget	Budget for FY 2021- 22	Expenditur e for FY 2021-22
1	1A	1	Component	Mangrove Protection Framework	ts	Mumbai						2021-22
1	1A	1A	Sub- component	Protective Wall Construction At Areas Which Are Likely To Get Encroached	3,420	2,195	-	1,225	365.06	859.94	730	87.68
1	1B	1B	Sub- component	Board Walks/ Promenads/ Joggers Path In Selected Critical Areas	1,500	1,000	-	500	-	500.00	125	-
1	1C	1C	Sub- component	Mangrove Stations	722	462	-	260	63.42	196.58	120	11.60
1	1D	1D	Sub- component	Mangrove Watch Towers	500	315	-	185	10.45	174.55	150	-
1	1E	1E	Sub- component	Centralised Wireless Station and Sub-stations and Protection Gear For Field Staff This setup can be integrated with in Mangrove Stations. No infrastructure charges have been calculated here	374	248	-	126	-	126.00	-	-
1	1F	1F	Sub- component	Mangrove Legal Cell	60	60	-	-	-	-	-	-
1	1G	1G	Sub- component	Mangrove Intelligence And Protection Network	297	297	-	-	-	-	-	-
				Sub Total	6,873	4,577	-	2,296	438.93	1,857.07	1,125	99.28
2	2A	2	Component	High Resolution Mapping Of Mangrove Forests Of MMR					-	-		
2	2A	2A	Sub- component	Analysis Of High Resolution Maps Of Mangrove Forests Of MMR (IIST Project)	200	200		200	6.63	193.37	10	-
				Sub Total	200			200	6.63	193.37	10	-
3	3A	3	Component	Mangrove Conservation/Removal Of Stressors					-			
3	3A	3A	Sub- component	Developing Mangrove Park	200	100	-	100	-	100.00	101	-
3	3В	3В	Sub- component	Protection Elevation Appropriate IUCN Category Or Other Protection Status	45	45	-	-	-	-	-	-
3	3C	3C	Sub- component	Mangrove Nurseries	200	200	-	-	-	-	-	-
3	3D	3D	Sub- component	Removal Of Non- Mangrove Flora	200	-	-	200	-	200.00	25	-
3	3E	3E	Sub- component	Removal Of Garbage from Mangrove Forests Collaboration to be Established with BMC	100	-	100	-	-	-	-	-
3	3F	3F	Sub- component	Mangrove Plantation INR 2.5 Lacks Per Hectare For 5 Years	1,000	1,000	-	-	-	-	-	-
				Sub Total	1,745	1,345	100	300	-	300.00	126	-
4	4	4	Component	Community Driven Sustainable Management Of Mangrove Forests					-			
4	4A	4A	Sub- component	Development Of Strategy For Active Participation	200	200 200		-	-	-	-	-
4	4B	4B	Sub- component	Education For Sustainable Development In Schools Collaboration to be Established with Education Department	200	200 - 200		-	-	-	-	-
4	4C	4C	Sub- component	Electronic Media Campaign and Public Private Community Partnership(PPCP) Collaborations with Print Media, Electronic Media and Digital Networks	100	100 - 100		-	-	-	-	-
				Sub Total	500	500 200 300 -		-		-		

			Commonant	Grand Sources of Funds		ds	Total Bullion Bu		Dudget for			
			Component /Sub- component	Particulars	Total of Componen ts	Mangrove Cell Mumbai	Other Agencies	MMRDA Funds	Expendit ure Done	Balance Budget	Budget for FY 2021- 22	Expenditur e for FY 2021-22
5	5A	5	Component	Creeklet Drainage Assessment					-			
5	5A	5A	Sub- component	Drainage Model Generation This management Intervention will be done in Selected Areas and Later on will be Up-scaled by the Mangrove Cell	100	-	-	100	11.78	88.22	-	-
				Sub Total	100	-	-	100	11.78	88.22	-	-
6	6A	6	Component	Mangrove Research And Training Centre					-			
6	6A	6A	Sub- component	Hardware	6,000	5,000	-	1,000	-	1,000.00	100	-
6	6B	6В	Sub- component	Software	975	300	-	675	-	675.00	-	-
				Sub Total	6,975	5,300	-	1,675	-	1,675.00	100	-
				Policy Interventions								
7	7A	7	Component Sub-	Environment Rehabilitation Tax Restricted to Areas where	20	200		-	-			
7	7A	7A	component Sub-	Infrastructure has been Built or is Supposed to be Built	30	30		-	-	-	-	-
7	7B	7B	component	Mangrove and Coastal Zone Crime Control Bureau	30	30	-	-	-	-	-	-
				Sub Total	60	60	•	-	•	-	•	•
									-			
8	8A	8	Component	Generation Of Knowledge Base					-			
В	8A	8A	Sub- component	Permanent Plots For Long Term Ecosystem Monitoring Collaboration to be Established with Mangrove Foundation	275	275	-	-	-	-	-	-
В	8B	8B	Sub- component	Study Of The Pressures On Mangrove Ecosystem In MMR Collaboration to be Established with Mangrove Foundation	500	400	-	100	-	100.00	-	-
8	8C	8C	Sub- component	Mangrove Field Guide Collaboration to be Established with Mangrove Foundation	100	100	-	-	-	-	-	-
В	8D	8D	Sub- component	Assessment Of Ecosystem Services Provided By Mangrove Collaboration to be Established with Mangrove Foundation	225	225	-	-	-	-	-	-
				Sub Total	1,100	1,000	-	100	-	100.00	-	-
									-			
9	9	9	Component	Mangrove Sanctuary	460	-	-	460	22.21	437.79	50	
				Sub Total	460	-	-	460	22.21	437.79	50	-
									-			
10	10	10	Component	Mangrove And Marine Ecosystem Interpretation Centre	1,000	-	-	1,000	-	1,000.00	200	5.72
				Sub Total	1,000	-	-	1,000	-	1,000.00	200.00	5.72
				Grand Total	19,013	12,482	400	6,131	479.54	5,651.46	1,611	105.00



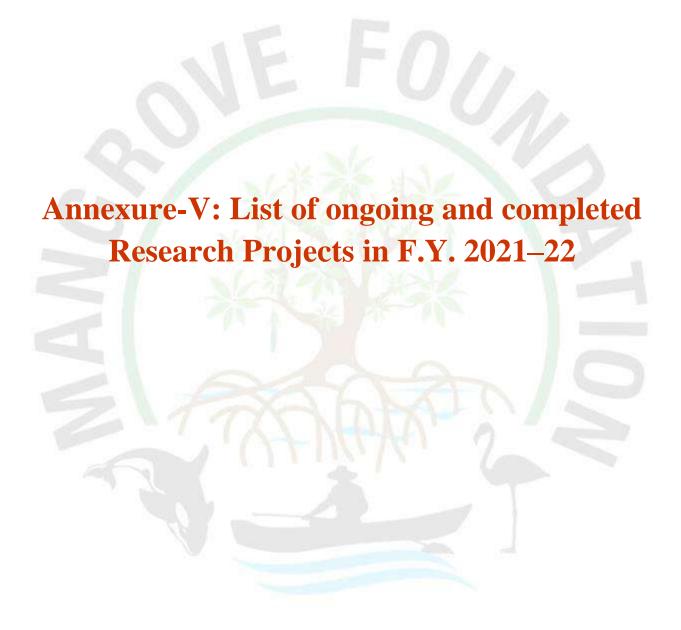
District	Location	Hectares	Planted saplings	Actual estimate	Total Expenditure	Funding source	Remark
	Mykhop	13	44440	1784566	1513107	GCF & Scheme	Channeling (Habitat improvement)
Palghar	Khardi 1	10	1	985712	622800	GCF & Scheme	Channeling (Habitat improvement)
1 aignai	Khardi 2	10	1	985712	622800	GCF & Scheme	Channeling (Habitat improvement)
	Kelwa	5	ı	492856	311400	GCF & Scheme	Channeling (Habitat improvement)
Raigad	Navdarbeli	7	1	1504811	524533	GCF & Scheme	Fishbone channeling (Habitat improvement)
	Vikhroli	5	22220	748399	748398	CSR	
Mumbai/ Mumbai Suburban/ Thane (Mumbai Mangrove	Alimghar	5	22220	325007	325005	Scheme	Fishbone channeling (Habitat improvement)
Conservation Unit)	Kharbav	13	57772	1423520	1185348	Scheme	Fishbone channeling (Habitat improvement)
Total		68	146652	8250583	5853391		



<u>List of Mangrove Co-Management Committees under 'Mangrove Conservation and Livelihood Generation' Scheme</u>

Name of District (no. of MCMCs)	Taluka	Name of village MCMC				
	Dahanu (2)	1. Agwan	2. Chandigaon			
Palghar (18)	Palghar (13)	 Datiware Donagre Karwale Murbe Navapur Satpati 	7. Tarapur8. Vedhi9. Wadhiv10. Mahim11. Tembhi			
	Vasai-Virar (5)	 Bhuigaon Marambalpada Narangi 	4. Rangaon5. Arnala			
Thane (14)	Bhivandi (12)	 Alimghar Anjur Bharodi Dive (Anjur) Dive (Kevani) Dunge 	7. Kasheli8. Kharbav9. Malodi10. Pimpalner11. Surai-Sarang12. Vehale			
	Thane (4)	 Uttan Mogharpada 	3. Toradi4. Versave			
Mumbai Suburban (1)	Borivali (1)	1. Gorai				
	Panvel (1)	1. Kombadbhuje				
	Pen (4)	1. Dadar 2. Div	3. Shirkichal4. Vadhav			
	Alibaug (2)	 Revdanda Sudkoli 				
	Tala (1)	1. Mandad				
Raigad (22)	Mhasala (7)	 Kalasuri Nigdi Pabhare Pangloli 	5. Waral6. Toradi (Bandwadi)7. Khargaon Bk.			
	Roha (2)	1. Dapoli 2. Uchel	3. Shedsai			
	Shrivardhan (4)	Bhatticha mal Diveagar	3. Galsure4. Kalinje			
	Murud (1)	1. Salav/Nidhi	·			

Name of District (no. of MCMCs)	Taluka	Name of village MCMC	
Ratnagiri (26)	Rajapur (8)	 Ansure Burumbewadi Dhaulvali Janshi 	5. Juve (Jaitapur)6. Keravale7. Sagwe Khurd8. Shirse
	Ratnagiri (7)	 Bhandarwada/ Warawade Gadnaral Gaonkhadi 	5. Malgund6. Mayekarwadi7. Pawas8. Rai
	Chiplun (2)	1. Donavali	2. Chiveli bandar
	Khed (1)	1. Songaon	
	Guhagar (3)	 Pewe Tavsal Khurd 	3. Veldur
	Dapoli (4)	 Aade Anjarle 	3. Murdi4. Murud
	Mandangad (1)	1. Shipole	
Sindhudurg (41)	Devgad (11)	 Elaye Hindale Mithmumbri Mithbav Mohulgav Mond 	7. Tambaldeg8. Taramumbri9. Tirlot10. Velwadi11. Wada
	Malvan (14)	 Achra Chindar -Teraiwadi Gawthanwadi Gaonkharwada Hadi Khajanwadi-Masure Kolamb 	8. Kothewada 9. Nivhe 10. Pankhol Juva 11. Revandi 12. Tondavali 13. Vaghavne 14. Varachi Devali
	Vengurla (13)	1. Gandhinagar 2. Gavtale 3. Huda 4. Karli 5. Kerwadi 6. Mayane 7. Mhartale	8. Mochemand 9. Nivati Medha 10. Parule 11. Tank 12. Mandvi 13. Velagar
	Kudal (2)	 Chendvan Kavathi 	
	Sawantwadi (1)	1. Aaronda	



<u>List of ongoing and completed Research Projects in F.Y. 2021–22</u>

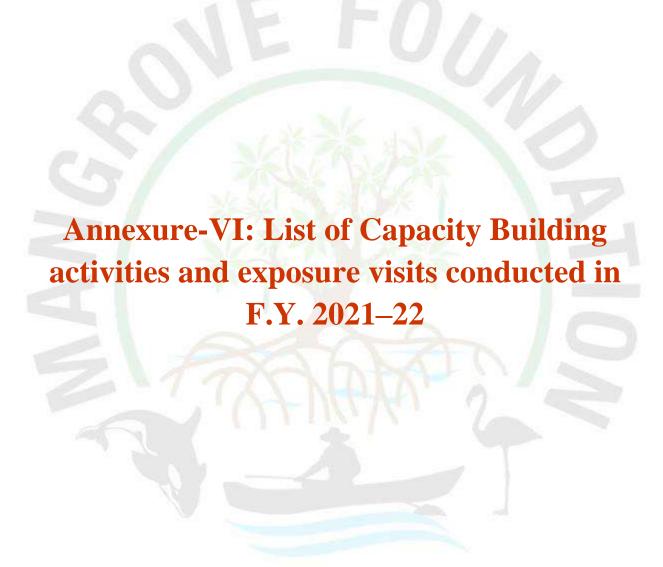
Sr. No.	Project/Activity	Institute/Organisation	Project Duration	Status	Total Budget (₹)	Amount Released (₹)
1.	Development of Procedures for forensic identification of illegally cut mangrove trees using molecular marker techniques	IWST	Mar. 2017–Sep. 2022	Ongoing	39,82,000	39,82,000
2.	Monitoring the health of mangroves of Maharashtra state using near real time satellite remote sensing data	Indian Institute of Space Science & Technology (IIST)	Mar. 2018–May 2022			71,31,000
3.	Implementation of Flamingos & Birds related mitigation measures and bird monitoring programme for the MTHL project	BNHS	Sep. 2017–Aug. 2027	Ongoing	31,92,73,240	17,62,18,440
4.	Studying the incubation temperature of nesting population of olive ridley turtles in coast of Maharashtra Sumedha Korgaonkar (WII – Research Scholar) Jan. 2019–Oct. 2021 Completed		Phase-I: 1,98,503 Phase-II: 2,60,000 Phase-III: 1,95,000	Phase-I: 1,98,503 Phase-II: 2,60,000 Phase-III: 1,95,000		
5.	Survey of Otter and Crocodiles in Mangrove habitats of ratnagiri district - ELA foundation	ELA Foundation	Jan. 2019–Mar. 2021	Completed	6,56,000	4,38,000

Sr. No.	Project/Activity	Institute/Organisation	Project Duration	Status	Total Budget (₹)	Amount Released (₹)
6.	Setting up of marine ornamental	National Bureau of Fish Genetic Resources	Mar. 2018–Sept.	Ongoing	Phase I: 1,02,37,177	Phase I: 1,02,37,177
	fish hatchery, Airoli	(NBFGR)	2024		Phase II: 1,15,56,000	Phase II: 38,89,000
7.	Sustainable Alternative Livelihood for Coastal Fishing Communities along the Palghar district of Maharashtra: Molluscan Mariculture Approach	Mr.Santosh Bhendekar, CMFRI-MRC Mumbai	Jan. 2020–Jan. 2023	()n_g01ng		17,66,000
8.	Diversity and Distribution of Gobiid fishes in Mangroves and associated freshwater and tidal creeks of Maharashtra: assessing cryptic species diversity through integrative taxonomy study	Dr. Unmesh Katwate, BNHS	Jan. 2020–Dec. 2021	On-going	12,00,000	8,40,000
9.	Isolation and Identification of Industrially important Microbial producers of L-Asparaginase from Mumbai Mangroves	Sayali Daptardar VPM's BN Bandodkar College of Science	Jan. 2020–Dec. 2022	On-going (Small Grants)	4,00,000	2,80,000
10.	Characterizing the diversity, life- history traits and the socio- economic drivers of ray fisheries along the Maharashtra coast.	Alissa Barnes	Jan. 2020–Aug. 2022	On-going (Small Grants)	4,99,110	1,99,644

Sr. No.	Project/Activity	Institute/Organisation	Project Duration	Status	Total Budget (₹)	Amount Released (₹)
11.	Mapping biological diversity in the caves of Vengurla Rock Archipelago, Sindhudurg, Maharashtra.	Shirish Manchi SACON	8 8		5,00,000	3,50,000
12.	Documentation of Fauna from Tide pool ecosystems along the Ratnagiri and Sindhudurg Coast, Maharashtra	Goldin Quadros SACON	Dec. 2019 – Mar. 2022	8 8		3,50,000
13.	Conservation genetics of Humpback Dolphins along the Maharashtra Coast with a secondary focus on all Cetacean strandings	Mihir Sule CES-IISc	Jan. 2020–Mar. 2022	On-going (Small Grants)	4,95,000	2,00,000
14.	Survey of the major Estuaries/Creek in the Raigad district for the mapping and distribution of some important mangroves species. Ganesh Pawar, Tuljaram Chaturchand College, Baramati Dec. 2020–May 2022 On-going (Small Grants)		2,65,000	1,90,000		
15.	Development of Integrated Pest Management (IPM) strategies against the major defoliating pests of mangroves in the Thane district of Maharashtra (Mealy bug & bark feeding borer) (Phase-II)	Institute of Wood Science & Technology (IWST)	Sep. 2021–Oct. 2022	On-going	7,94,000	4,00,000

Sr. No.	Project/Activity	Institute/Organisation	Project Duration	Status	Total Budget (₹)	Amount Released (₹)
16.	Fine scale ecology of inshore cetaceans in the context of interactions with commercial fisheries and vessel traffic along the Sindhudurg coast, Maharashtra, India	Konkan Cetacean Research Team (KCRT)	Dec. 2021—Nov. 2022 On-going		12,52,714	6,00,000
17.	Comparative study of impact caused by Nisarg cyclone along coast of Maharashtra in mangrove and non-mangrove areas with special focus on Raigad & Ratnagiri districts	Srushti Conservation Foundation	Jun. 2021–May 2022 On-going		14,04,700	12,00,000
18.	Tracking the nearshore and migratory movements of sea turtles occurring in the coastal waters of Maharashtra	Wildlife Institute of India (WII)	Feb. 2021–May 2022	On-going	9,87,850	8,00,000
19.	Spatial mapping of critical marine habitats of Malvan coast for reorganisation of boundary of the Malvan Marine Sanctuary	Wildlife Institute of India (WII)	Feb. 2021–Sep. 2022	On-going	36,02,950	25,22,065
20.	To develop m-Turtle Android App to collect turtle conservation data in real time for Raigad, Ratnagiri and Sindhudurg districts	Sahyadri Nisarg Mitra (SNM)	Jan. 2021–Dec. 2022	On-going	1,90,000	1,50,000

Sr. No.	Project/Activity	Institute/Organisation	Project Duration	Status	Total Budget (₹)	Amount Released (₹)
21.	Study of Lichen flora (from Mangrove habitats) & Systematic study of Avicennia & Salvadora species from Maharashtra	R.D. & S.H. National College	Jul. 2021–Jun. 2022	On-going	5,08,000	3,50,000
22.	GIS study of the Shrinkage of Thane Creek from 1972 to 2020	Anjaneya GIS Specialist Mangrove Foundation	Apr. 2021–Jun. 2021	Completed		-
23.	Elucidating the status of migratory waterbirds in ornithologically important wetlands of Maharashtra – Central Asian Flyway Perspective	BNHS	Oct. 2021–Sep. 2026	On-going	2,77,23,043	53,80,000



List of Capacity Building activities

Sr. No.	Date	Event	District / Office	Training Institute	Participants
1.	24–25 Jun. 2021	Personality Development & Stress management programme - Online	All coastal district staff	Forest Training Institute, Shahapur	_
2.	26–27 Jun. 2021	Online workshop on Biology of Sea turtles	Mangrove Foundation staff	Bombay Natural History Society (BNHS)	07
3.	07 Aug. 2021	Introduction to Common Mangroves and Birds of Thane Creek Flamingo Sanctuary	Mangrove Cell and Mangrove Foundation	Mangrove Foundation	15
4.	24–25 Aug. 2021	Volunteer Training Workshop for Inner Wheel District 314	Inner Wheel Club Members	Mangrove Foundation	15
5.	22 Sep. 2021	- Hygienic handling and		College of	27
6.	24 Sep.2021	value addition in	Ratnagiri	Fisheries, Shirgaon,	24
7.	27 Sep.2021	fisheries		Ratnagiri	25
8.	27 Sep. 2021	Orientation for newly appointed Forest Guard & Foresters	Mumbai Mangrove Conservation Unit (MMCU)	Mangrove Foundation	16
9.	29 Sep. 2021	Hygienic handling and value addition in fisheries	Ratnagiri	College of Fisheries, Shirgaon, Ratnagiri	25

Sr. No.	Date	Event	District / Office	Training Institute	Participants
10.	08 Oct. 2021	GIS (treatment plan) workshop for PAs Forestry, Foresters & Forest Guards	MMCU and Raigad, Ratnagiri	Mangrove Foundation	30
11.	08 Oct. 2021	m-Turtle app training workshop	Ratnagiri	Sahyadri Nisarga Mitra, Ratnagiri	11
12.	22–24 Oct. 2021	Lifesaving techniques and Powerboat training	Ratnagiri (Songaon)	Inland Windsurfing and Sailing Academy	03
13.	22–24 Oct. 2021	Lifesaving techniques and Powerboat training	Ratnagiri (Songaon)	Inland Windsurfing and Sailing Academy	03
14.	22–24 Oct. 2021	Lifesaving techniques and Powerboat training	Ratnagiri (Songaon)	Inland Windsurfing and Sailing Academy	03
15.	26–27 Oct. 2021	Ecotourism Meet (Orientation of all Ecotourism PA's)	Palghar, Thane, Raigad, Ratnagiri & Sindhudurg	Mangrove Foundation	14
16.	26 Nov. 2021	Two-wheeler safety riding workshop for Forester, Forest Guards and Maharashtra Security Corporation staff	Thane, Navi Mumbai and Mumbai	United Way Mumbai	24
17.	04–05 Dec. 2021	Introduction to mangroves and birds. Conducting a Mangrove trail	Raigad	Mangrove Foundation Staff Raigad	08

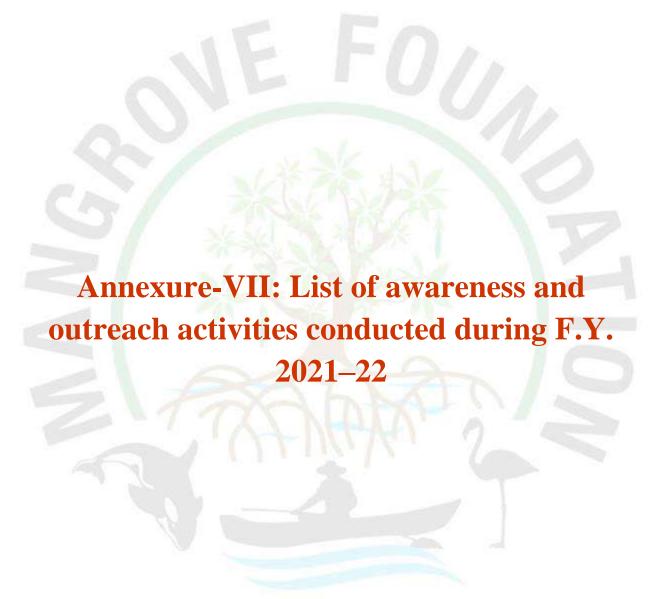
Sr.	Date	Event	District /	Training	Participants
No.			Office	Institute	
				ICAR –	
	05–06 Dec.	Marine Ornamental		National	
18.	2021	Fish rearing training	Sindhudurg	Bureau of Fish	20
	2021	programme		Genetic	
				Resources	
				ICAR –	
	07–08 Dec.	Marine Ornamental	Palghar,	National	
19.	2021	Fish rearing training	Raigad and	Bureau of Fish	20
		programme	Ratnagiri	Genetic	
				Resources	
		M-Turtle Application	Anjarle,	Mangrove	
20.	08 Dec. 2021	training for beach	Ratnagiri	Foundation	18
		managers			
				Bombay	
21.	20–22 Dec.	Workshop on bird	Mangrove	Natural History	02
	2021	migration studies	Foundation	Society	
				(BNHS)	
22	27–28	Ecotourism nature	Maramalpada,	Mangrove	25
22.	Dec.2021	guide training	Palghar	Foundation	25
		workshop	_		
		Ornamental fish		M	
23.	05 Jan. 2022	rearing training	Thane	Mangrove	10
		programme		Foundation	
				Managaga	
				Mangrove Foundation &	Local Vagan
24.	06 Jan. 2022	M Turtle App training	Sindhudurg		Local Kasav
				Shahyadri	Mitras
				Nisarg Mitra Wildlife	
25.	07 Jan. 2022	Drone training	Sindhudurg	Institute of	Mangrove
25.	01 Jan. 2022	Dione naming	Smanadarg	India	Cell staff
		C(-11' 1 C			
26.	10 Jan. 2022	Coastal birds of	CMBC staff	Mangrove	04
		Maharashtra		Foundation	
		Overview of Wetland		Manarovo	
27.	21 Jan. 2022	birds and their	CMBC staff	Mangrove Foundation	07
		migration		Toundation	
	l		l	l	

Sr. No.	Date	Event	District / Office	Training Institute	Participants	
28.	25 Jan. 2022	M Turtle App training for beach managers	Sindhudurg	Mangrove Foundation	Local Kasav Mitras	
29.	Jan. – Feb. 2022	Bird identification Workshops for staff of Coastal and Marine Biodiversity Centre	CMBC, TCFS	Mangrove Foundation	10	
30.	23 Feb. 2022	Amendments in Companies Act w.r.t. Corporate Social Responsibility	Online	Bharatiya Agro Industries Foundation (BAIF) Development Research Foundation	01	
31.	07 Jan. 2022	Bag painting workshop for beneficiaries	Songaon, Ratnagiri	Mangrove Foundation	10	
	Total					

List of Exposure Visits

Sr. No.	Date	Торіс	Location	Participants
1.	30 Aug. 2021	Exposure visits to Canaries Aquaculture (Seabass and Pearl spot Hatchery)	Kumatha, Maharashtra	Farmers from Vengurla, LS - Kedar Palav, PA - Amit Rokade
2.	16 Sep. 2021	Mangrove Walk	Ratnagiri	Students and staff members of M.Sc. Environmental Science – University of Mumbai, Ratnagiri Sub centre
3.	27 Sep. 2021	Mangrove Walk – World Tourism Day	Pawas	MCMC Pawas and group members
4.	26 Oct. 2021	Exposure visit be UNDP GCF Team Odisha	Sindhudurg	Foundation staff, UNDP GCF MH and Odisha staff

Sr. No.	Date	Торіс	Location	Participants
5.	5 Dec. 2021	Marine ornamental units	Airoli, Navi Mumbai	PAs and beneficiaries from Sindhudurg district
6.	13 Dec. 2021	Mangrove Plantation	Palhe, Navedarbeli, Raigad	Skoda Team, Team of Economics Times
7.	24 Jan. 2022	Olive-ridley Turtle satellite tagging	Velas, Ratnagiri	Manas Manjrekar, Harshal Karve, Dhanashree Bagade, Mohan Upadhaye
8.	02 Feb 2022	Visit to aquaculture projects and Ecotourism Nivati	Tank and Nivati	Khardekar college students, SACON team, Rotary Club of Vengurla midtown, Indian Women Scientists Association and Mangrove foundation staff
9.	15-17 Feb. 2022	Olive-ridley Turtle satellite tagging	Guhaghar, Ratnagiri	Virendra Tiwari, Adharsh Reddy, Manas Manjrekar, Vandan Jhaveri, Harshal Karve, Mohan Upadhaye
10.	10-11 Feb. 2022	Shorebirds Identifications	Akshi, Alibaug	Hrishikesh Rane, Jayesh Vishwakarma, CMBC Staff
11.	21-24 Feb. 2022	Livelihood Development through aquaculture units	Malvan, Sindhudurg	Sushant Sanaye, Kiran Mali, Hrishikesh Rane
12.	08-14 Mar. 2022	Shrishti Manipal Designing Institute Bangalore	Sindhudurg	20 students, UNDP staff, SHGs
13.	28 Mar. 2022	Mangroves	Palhe, Navedarbeli, Raigad	College of Forestry, Dapoli



List of Awareness and Outreach activities

Sr. No.	Date	Event	Environmentally Significant Day	Organiser / Speaker / Creator	
		Informative poster for Earth			
1.	22 Apr. 2021	Day 2021 based on the theme	Earth Day	Mangrove Foundation	
		'Restore our Earth'			
2	29 Amm 2021	Turtle Carnival- Types of Sea			
2.	28 Apr. 2021	Turtles			
3.	20 Apr 2021	Turtle Carnival- Need for			
3.	30 Apr. 2021	Turtle Conservation			
4.	01 May 2021	Turtle Carnival- Turtle			
4.	01 May 2021	Nesting and Hatching period	Olive Ridley Sea		
5.	02 May 2021	Turtle Carnival- Activities on	Turtle hatchling	Mangrove Foundation	
3.	02 May 2021	the beach	Season		
		Turtle Carnival- Mangrove			
6.	04 May 2021	Foundation's role in Turtle			
		conservation			
7.	06 May 2021	Turtle Carnival- Turtle			
/.	06 May 2021	Festival and Online Quiz			
		Crossword puzzle on	ouzzle on Endangarad		
8.	21 May 2021	Identifying the Endangered	Endangered Species Day	Mangrove Foundation	
		species	Species Day		
9.	01 Jun. 2021	Informative poster on Coral	World Reef Day	Mangrove Foundation	
<i>)</i> .	01 Juli. 2021	Reefs	World Reef Day	ivialigiove i outlation	
		Flamingo watch LIVE on			
10.	05 Jun. 2021	social media (Instagram &		Mangrove Foundation	
		Facebook)			
		Release of Coffee Table	World		
		Book – 'Bio-sentinels of	Environment Day		
11.	05 Jun. 2021	Coastal Maharashtra'		Mangrove Foundation	
		authored by Mr. Raman			
		Kulkarni			
		Webinar on 'The Ocean: Life		Mr. Harshal Karve,	
12.	08 Jun. 2021	and Livelihoods'	World Ocean Day	Ms. Sailee Joshi-	
				Gupte	
		Marine Matters Lecture			
13.	16 Jun. 2021	Series (MMLS) –Chapter XX	World Sea Turtle	Dr. Rina Dev	
	10 Jun. 2021	(Journey from Rescue to	Day		
		Release)			

Sr. No.	Date	Event	Environmentally Significant Day	Organiser / Speaker / Creator
14.	19 Jun. 2021	Book launch of 'Mase Janun Gheuya' authored by Late Dr. Vinay Deshmukh and Dr. Nandini Deshmukh	_	Mangrove Foundation
15.		Mangrove Foundation Awards 2021	International day	
16.	26 Jul. 2021	'Plant a Mangrove' Certificate – an online awareness generation activity	for Conservation of Mangrove Ecosystem	Mangrove Foundation and Mangrove Cell
17.		Mangrove Plantation		
18.	13 Aug. 2021	Talk on Women's Redressal and sexual harassment at work place	Mangrove Cell, Mangrove Foundation, MMCU office female staff	Mangrove Foundation
19.	30 Aug. 2021	Awareness poster on Whale Shark Conservation	World Whale Shark Day	Mangrove Foundation
20.	22 Sep. 2021	Informative Poster on State Mangrove Tree – Sonneratia alba	Declaration of State Mangrove Tree	Mangrove Foundation
21.	27 Sept. 2021	Inauguration of Informative boards and signages at Bhandup area of Thane Creek Flamingo Sanctuary	World Tourism Day	Mangrove Foundation and Mangrove Cell
22.	02 Oct. 2021	Sea Turtle Clay modelling Workshop for School students	World Wildlife	
23.	06 Oct. 2021	Playing 'Conservation Sail'- An Educative Board Game with School and College students	World Wildlife Week	Mangrove Foundation
24.	08 Oct. 2021	Poster on Fun Facts about Octopus	World Octopus Day	Mangrove Foundation
25.	15 Oct. 2021	Coastal and Wetland Birds Photography Competition	Bird Week	Mangrove Foundation
26.	05 Nov. 2021	Online Bird Quiz	Did Work	Mangrove Foundation

Sr. No.	Date	Event	Environmentally Significant Day	Organiser / Speaker / Creator
27.	05–12 Nov. 2021	Bird Photo Exhibition at the Coastal and Marine Biodiversity Centre (CMBC), Airoli		
28.	10 Nov. 2021	Bird Trail at Bhandup Pumping Station for School, College Students and general public	Bird Week	Mangrove Foundation
29.	12 Nov. 2021	Marine Matters Lecture Series Chapter XXI and Closing Ceremony of Bird Week, distribution of prizes for Bird Photography Competition		
30.	02 Feb. 2022	Marine Matters Lecture Series Chapter XXII and Clean-up MoU signing	World Wetlands	Mangrove Foundation
31.	02 1 00. 2022	National Wetland Conference	Day	Pariyavaran Dakshata Mandal & Mangrove Foundation
32.	10 Mar. 2022	SIES Sion college visit to CMBC	_	Mangrove Foundation
33.	14 Mar. 2022	R. D. National college visit to CMBC	_	Mangrove Foundation
34.	27 Mar. 2022	Mangrovethon- a women marathon promoting the importance of protection & conservation of mangroves		Mangrove Foundation & Innerwheel Fo\undation

	Palghar District				
Sr. No.	Date	Event	Environmentally Significant Day	Organiser / Speaker / Creator	
35.	23 Jun. 2021	Mangrove Plantation with Navneet Foundation, villagers and school students.	_	Mangrove Foundation and Mangrove Cell	
36.	26 Jul. 2021	Talk on Importance of mangrove, threats, mangrove biodiversity food chain, Marine mammals and turtle conservation	International Mangrove Day	Mangrove Foundation and Mangrove Cell	
37.	27 Sep. 2021	Nature trail	World Tourism Day	Mangrove Foundation	
38.	05 Oct. 2021	Essay writing competition on mangrove diversity			
39.	06 Oct. 2021	Talk about the mangrove's diversity and their importance in Datiware English medium school		Mangrove Foundation	
40.	08 Oct. 2021	Drawing competition related to mangrove diversity in ZP School, Satpati	Wild Life Week		
41.	08 Oct. 2021	Drawing and rangoli competition related to mangrove diversity in Datiware English medium school			
42.	12 Nov. 2021	Talk on 'How plastic dumping affects the birds & importance of birds in the food chain'.	Bird week	Mangrove Foundation	
43.	02 Feb. 2022	Talk on' Importance of wetland their role in environment and in mangrove, & mangrove diversity, food chain and their threats importance.	World Wetland Day	Mangrove Foundation & UNDP	

Sr. No.	Date	Event	Environmentally Significant Day	Organiser / Speaker / Creator
44.	24 Feb. 2022	Talk on 'Mangrove diversity, food chain, their threats and importance of mangroves- Chandigaon school		Mangrove Foundation
45.	10 Mar. 2022	Talk on Awareness program on Mangroves and Ecosystem Dhene Dahanu ZP school	_	Mangrove Foundation
46.	14 Mar. 2022	Marambalpda- organized health checkup programme		Inner wheel foundation, Hariyali Trust, Mangrove Foundation and Mangrove Cell
		Thane Dis	strict	
47.	26 Jul. 2021	Online essay competition	International Day for Conservation of Mangrove Ecosystem	Mangrove Foundation
48.	21 Mar. 2022	Slogan rally with Zilla Parishadh kalher school students	International Day of Forests	Mangrove Foundation
		Raigad Di	strict	
49.	27 Jul. 2021	Presentation Importance of mangrove conservation at JSW Vadkhal	International Day for Conservation of Mangrove Ecosystem	Mangrove Foundation
50.	07 Oct. 2021	Presentation on Protected Marine Animals at Chintamanrao Kelkar Vidyalaya, Alibag	Wildlife Week	Mangrove Foundation
51.	13 Nov. 2021	Bird Week awareness at Chintamanrao Kelkar Vidyalaya, Alibag	Bird Week	Mangrove Foundation
52.	03 Dec. 2021	Presentation on mangroves conservation and its importance at Zilla Parishadh School, Raigad, Kalinje	_	Mangrove Foundation

Sr. No.	Date	Event	Environmentally Significant Day	Organiser / Speaker / Creator
53.	02 Feb. 2022	Introduction and importance of mangrovs at Diveagar	World Wetland Day	Mangrove Foundation
54.	22 Mar. 2022	Reading of Ishaan's Tresure at Nagar Parshad School, Pen Tal. Pen, District Raigad	World Water Day	Mangrove Foundation
55.	26 Mar. 2022	Information at Shrivardhan Paryatan Mohotsav	_	Mangrove Foundation
56.	28 Mar. 2022	Introduction to mangroves & plantation techniques at RFO Alibaug Office		Mangrove Foundation
57.	28 Mar. 2022	Introduction to mangroves and its plantation techniques at RFO Office, Alibag	_	Mangrove Foundation
		Ratnagiri D	Pistrict	
58.		Mangrove Plantation Drive		Rai, Malgund, Murdi and Sagave MCMC
59.	26 Jul. 2021	Online Poster making competition	International Day	
60.		Online Slogan writing competition	for Conservation of Mangroves	Mangrove Foundation
61.	27 Sep. 2021	Mangrove Awareness Programme- Dhaulwalli	Mangroves	Wangiove Foundation
62.	29 Sep. 2021	Mangrove Awareness Programme- Jaitapur		
63.	03 Oct. 2021	Mangrove Plantation Drive- Mirya		
64.	04 Oct. 2021	Mangrove Awareness Programme- Janshi	World Wildlife	
65.	05 Oct. 2021	Online Webinar – 'Conservation of Coastal Biodiversity'	World Wildlife Week	Mangrove Foundation
66.	07 Oct. 2021	Mangrove Conservation Awareness- Jakadevi		
67.	14 Dec. 2021	Story telling session – Ishancha Khajina at Rai	_	Mangrove Foundation

Sr. No.	Date	Event	Environmentally Significant Day	Organiser / Speaker / Creator
68.	15 Dec. 2021	Story telling session – <i>Ishancha Khajina</i> at Kasarveli	,	
69.		Story telling session – <i>Ishancha Khajina</i> at Kalbadevi	_	Mangrove Foundation
70.	- 28 Dec. 2021	Story telling session – Ishancha Khajina at Shipole		Mangrove Foundation
71.	- 28 Dec. 2021	Story telling session – Ishancha Khajina at Umroli		Wangiove Foundation
72.	03 Feb. 2022	Wetlands Awareness programme at Sarvankash Vidyamandir	World Wetland Day	Mangrove Foundation
		Sindhudurg	District	
73.	26 Jul. 2021	Mangrove Plantation		Mangrove Foundation, Mangrove Cell and Vetal Pratishthan Sindhudurg
74.	26 Jul. 2021	Demonstration of eco- friendly nursery bags and Plantation of mangrove species	International Day for Conservation of Mangrove Ecosystem	Mangrove Foundation
75.	27 Jul. 2021	Mangrove ecosystem awareness programme and launch of Ecotourism Advertisements boards		Mangrove Foundation
76.	27 Jul. 2021	Awareness talk on Cetaceans		Mihir Sule, KCRT
77.	27 Sep. 2021	Awareness programme with SACON team and Swamini SHG	World Tourism Day	Dhanusha Kawalkar Sr. Resercher, SACON Jagruti Gavande
78.	27 Sep. 2021	Mangrove awareness programme		Prof. Jadhav

Sr. No.	Date	Event	Environmentally Significant Day	Organiser / Speaker / Creator
79.	27 Sep. 2021	Visit to tourism places from Devgad		Mangrove Foundation
80.	01 Oct. 2021	Installation of bird feeders on Mithmumbri mangrove trail		Mangrove Foundation
81.	02 Oct. 2021	Awareness programme on cleaning of mangrove ecosystem		Members of Swamini SHG
82.	05 Oct. 2021	Awareness about mangrove ecosystem		
83.	05 Oct. 2021	Demonstration of products from coconut shells and coir by Om Sai SHG Nivati	World Wildlife week	
84.	06 Oct. 2021	Drawing competition for school students		Mangrove Foundation
85.	07 Oct. 2021	Awareness on mangrove associated biodiversity		
86.	09 Oct. 2021	Drawing competition for school students		
87.	20 Nov. 2021	Bird trail		
88.		Drawing competition for school students	Bird week	Mangrove Foundation
89.	25 Nov. 2021	Talk on Backyard Birding	Dird week	Dhanusha Kawalkar Sr. Researcher, SACON
90.	17 Jan. 2022	Filming for video on Taramumbri Ecotourism by Sanvad Media	_	Jalkanya SHG, MCMC Taramumbri
91.	02 Feb. 2022	Exposure visits for students from Vengurla and members of Indian Women Scientists Association Kolhapur	World Wetland Day	Mangrove Foundation
92.	02 Feb. 2022	Talk on Subterranean Wetlands: Heritage of India		Miss. Dhanusha Kawalkar Sr. Resercher, SACON and MD Speleological Association of India

Sr. No.	Date	Event	Environmentally Significant Day	Organiser / Speaker / Creator
93.	11 Feb. 2022	Filming for Online video on Taramumbri Ecotourism by Malvani Live Film on mangrove plantation by Mangrove Cell and MFN		Jalkanya SHG, MCMC Taramumbri Mangrove Foundation and Mangrove Cell
94.	02–03 Mar. 2022	Visit by UNDP Outreach team for filming Swamini SHG and Aquaculture at Tank		Mangrove Foundation
95.	08 Mar. 2022	Opportunities for women in aquaculture	Women's day	Mangrove Foundation
96.	21 Mar. 2022	M Turtle App Usage	World Forest Day	Mangrove Foundation and Mangrove Cell
97.	28 Mar. 2022	Mangrove Cell Exhibit for visit of Hon. Minister of Environment and Tourism		Mangrove Foundation and Mangrove Cell

<u>List of External Talks / Lectures delivered by Mangrove Foundation staff</u>

Sr. No.	Date	Speaker	Торіс	Organiser
1.	22 Apr. 2021	Dr. Sheetal Pachpande	Mangroves from a scientific point of view	Marathi Vidnyan Parishad
2.	09 May 2021	Hrishikesh Rane	Migration Pattern of Indian Birds	Know Your Surroundings
3.	22 May 2021	Dr. Sheetal Pachpande	Mangroves of Maharashtra	Maritime Mumbai Museum Society
4.	16 Jun. 2021	Mohan Upadhaye	Sea Turtle Conservation in Maharashtra	The Mumbai Zoo

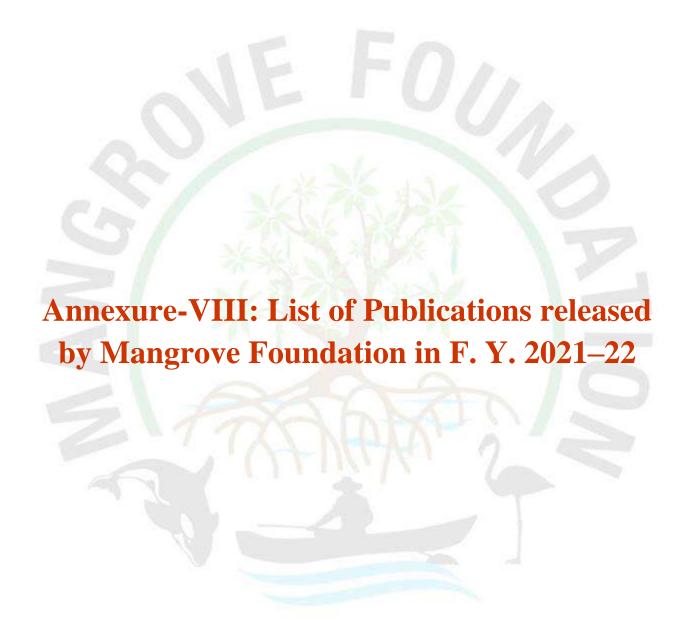
Sr. No.	Date	Speaker	Торіс	Organiser
5.		Virendra Tiwari	Apli Vasundhara	Maharashtra State Biodiversity Board
6.	26 Jul. 2021	Harshal Karve	Different Aspects of Mangrove Ecosystem	Paryavaran Dakshata Mancha
7.		Dr. Sheetal Pachpande	Mangrove Ecosystem & Conservation	M.D. college
8.	30 Aug. 2021	Dhanashree Bagade	Whale Shark Conservation in Maharashtra	Seascape- Gujarat
9.	15 Dec. 2021	Dr. Sheetal Pachpande	Introduction to Mangrove Ecosystem	Rotary Club of Bombay Pier & Friends of Environment
10.	21 Jan. 2022	Dr. Manas Manjrekar	Conservation of coastal and marine biodiversity in Maharashtra	Bharti Vidyapeeth, Pune
11.	22 Jan. 2022	Virendra Tiwari	Role Model in Mangrove Conservation	Rotary Club
12.	04 Feb. 2022	Dr. Mehaboob Nadaf	Understanding the Mangroves	Anandibai Raorane Arts, Commerce & Science college, Vaibhavwadi, Sindhudurg
13.	25 Feb. 2022	Sailee Joshi-Gupte	Livelihood through Mangroves in Maharashtra	SIES Nerul
14.	26 Feb. 2022	Sailee Joshi-Gupte	Livelihood through Mangroves in Maharashtra	R. D. National college
15.	28 Feb. 2022	Dr. Sheetal Panchpande	Mangroves of Maharashtra	GEA School

Sr. No.	Date	Speaker	Торіс	Organiser
16.		Dr. Kiran Mali	Migration of Fish focusing Tuna migration study	
17.	17 Mar. 2022	Harshal Karve	Migration study of Sea Turtles in Maharashtra	Ramnarain Ruia college
18.		Hrishikesh Rane	Migration study of Birds in India	
19.	09 Mar. 2022	Dr. Mehaboob Nadaf	Importance of Mangroves	Aryan School & IWC Bombay Mid-Town
20.	28 Mar. 2022	Jayesh Vishwakarma	Overview of Mangrove Conservation by Mangrove Foundation	LIC, Mumbai
		T	hane District	
21.	21 Jul. 2021	Lotiko Chin do	Importance of	Managara Faundation
22.	26 Jul. 2021	Latika Shinde	Mangroves, Pimpalghar	Mangrove Foundation
23.	07 Oct. 2021	Latika Shinde & Jyoti Gabhane	Importance of Wildlife animals and Mangrove and its importance.	Mangrove Foundation & Z.P.School, Kalher
24.	08 Oct. 2021	Chaitali Patil & Amey Bhogate	Importance of Wildlife animals, Mangrove and its importance at	Mangrove Foundation & Z.P.School, Vehele
25.	02 Feb. 2022	Amey Bhogate	Importance of Wetland and Wetland Day at	Mangrove Foundation & Z.P.School Surai Sarang Kalher
26.	02 Feb. 2022	Siddhesh Sangare, Latika Shinde	Importance of Wetland and Wetland Day Mangrove and its importance	Mangrove Foundation & Z.P.School Vehele
27.	03 Feb. 2022	Jyoti Gabhane	Importance of Wetland and Wetland Day	Mangrove Foundation & Z.P.School Kalher

Sr. No.	Date	Speaker	Торіс	Organiser
		Ra	tnagiri District	
28.	02 Feb. 2022	Pranjali Chopra	World Wetland Day	District Collectorate, Forest Department and Mangrove Foundation
29.	02 Feb. 2022	Swastik Gawade	Mangrove Biodiversity and identification	District Collectorate, Forest Department and Mangrove Foundation
		Sind	hudurg District	
30.	10 Jul. 2021	Durga Thigale, Neha Narvekar	Awareness programme for fisherman community	Fisheries Dept. Sindhudurg and Mangrove Foundation
31.	8 Oct. 2021	Mrunali Dange, Neha Narvekar	Identification and importance of mangroves	ZP Primary School Chindar (Amit Kadam, teacher)
32.	09 Nov. 2021	Mrunali Dange	Bird diversity in mangroves	Sadabhau Koyande school Achara
33.	17 Nov. 2021	Jagruti Gavande	Ishaan's Treasure Book Reading	Primary School Nivati
34.	18 Nov. 2021	Mrunali Dange	Ishaan's Treasure Book Reading	Rameshwar high school Achara
35.	21 Nov. 2021	Mangrove Foundation Malvan team	Talk on Mangrove Scheme	Fisheries Dept
36.	25 Nov. 2021	Durga Thigale,	Mangrove Ecotourism and Role of Women in Fisheries	Vikas Adhyayan Kendra Mumbai and Fisheries Dept. Sindhudurg
37.		Jagruti Gavande	Identification of mangrove species and its importance	Pandit Pratap school Nivati
38.	17 Dec. 2021	Mrunali Dange	Identification of mangrove species and its importance	Primary School Eliye

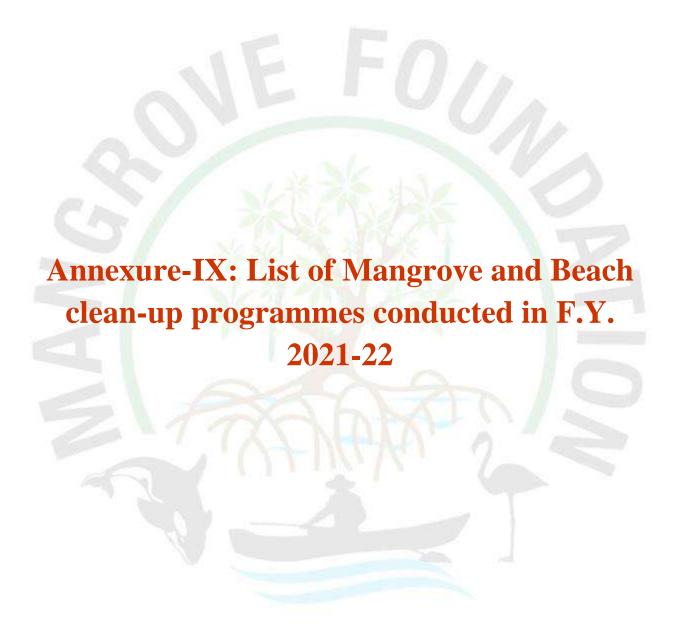
Sr. No.	Date	Speaker	Торіс	Organiser
39.	02 Feb.2022	Durga Thigale,	Mangroves and Livelihood: World Wetland Day	Br. Khardekar College Vengurla
40.	10 Feb. 2022	Mangrove Foundation Malvan team	Crab Culture in Mangroves organised by (Online)	NFDB Hyderabad and College of Fisheries Ratnagiri
41.	07 Mar. 2022	Mohini Bhingare	Ishaan's Treasure Book Reading	Primary School Kolamb





<u>List of Publications released by Mangrove Foundation in F. Y. 2021–22</u>

Sr. no.	Date of release	Publication
1.	14 Apr. 2021	Sonneratia Newsletter- Vol. 1 Issue 2
2.	05 Jun. 2021	Bio-Sentinels of Maharashtra - coffee table book compiled by Mr. Raman Kulkarni
3.	19 Jun. 2021	Mase Janun Ghya - Book authored by Dr. Nandini Deshmukh
4.	01 Jul. 2021	Sonneratia Newsletter- Vol. 1 Issue 3
5.	01 Oct. 2021	Sonneratia Newsletter- Vol. 1 Issue 4
6.	01 Jan 2022	Sonneratia Newsletter- Vol. 2 Issue 1
7.	21 Mar. 2022	Flamingo Special Cover Post cards & Special Cancellation



List of Mangrove and Beach clean-up programmes conducted in F.Y. 2021-22

Sr. No.	Date	Location	District	Organisation
1.	04 Jul. 2021	Vadrai Mahim	Palghar	Mangrove Cell and Mangrove Foundation
2.	25 Jun. 2021	Jesal Park Bhyander	Thane	For Future India, MBMC clean-up staff, Police staff
3.	26 Jul. 2021	Bhandup Area, Thane Creek Flamingo Sanctuary	Mumbai	Mangrove Foundation, United Way Mumbai and Team With Them For Them
4.	01 Aug. 2021	Mandvi Beach	Ratnagiri	Mangrove Foundation & WE group
5.	14 Aug. 2021	Kurli Beach	Ratnagiri	SHG & Mangrove Foundation
6.	15 Aug. 2021	Vadrai Beach	Palghar	Mangrove Cell, Mangrove Foundation, Pollution Control Board, MCZMA, and local villagers
7.	22 Aug. 2021	Koliwada Bhayandar	Thane	For Future India, KMBK, MBMC clean-up staff, Scout guide team from Bhayandar school
8.	15 Sep. 2021	Mandovi Beach	Ratnagiri	JIDDI mountaineers
9.	20 Sep. 2021	Kalbadevi Beach	Ratnagiri	Gram Panchayat, Kalbadevi
10.		Diveagar	Shrivardhan	Mangrove Cell & Mangrove Foundation
11.	27 Sep. 2021	Songaon	Ratnagiri	MCMC Songaon
12.		Anjarle	Ratnagiri	MCMC Anjarle
13.	19 Sep. 2021	Jesal Park Bhayandar	Thane	For Future India, MBMC clean-up staff
14.	02 Oct. 2021	Aare Beach	Ratnagiri	We Group
15.	06 Oct. 2021	Gavkhadi	Ratnagiri	MCMC Gavkhadi

Sr. No.	Date	Location	District	Organisation
16.	23 Oct. 2021	Bhatye Beach	Ratnagiri	District Collectorate
17.	31 Oct. 2021	Bhayandar West	Thane	For Future India, MBMC clean-up staff
18.	14 Nov. 2021	Nivti beach	Sindhudurg	Mangrove Foundation, Nivti Gram Panchayat and K.S.S. Nivti- Medha Vetan Foundation
19.	28 Nov. 2021	Jay Ambe Nagar Bhayandar		For Future India, MBMC clean-up staff, Penkar Pada Local People
20.	26 Dec. 2021	Bhayandar creek	Thane	For Future India, MBMC clean-up staff
21.	26 Jan. 2022	Bhayandar Creek		For Future India, MBMC clean-up staff
22.	18 Feb. 2022	Sarsole Jetty, Palm Beach	Raigad	Mangrove Soldiers
23.		Bhuigaon beach	Palghar	Luna Story
24.		Thane Creek Flamingo Sanctuary	Thane	Beach Please
25.		Sector 19, Airoli	Thane	With Them For Them
26.		Bhandup Pumping Station	Mumbai	Vanashakti
27.		Bhayandar West Creek	Thane	For Future India
28.	20 Feb. 2022	Bhayandar creek		For Future India, MBMC clean-up staff
29.	20 Mar. 2022	Jesal Park Bhayandar		For Future India, MBMC clean-up staff
30.	22 Mar. 2022	Dhaulwalli	Ratnagiri	MCMC Dhaulwalli members and beneficiaries

Contact us at:

Office of Mangrove and Marine Biodiversity Conservation Foundation of Maharashtra,

302, 3^d Floor, Wakefield House, Above Britannia & Co. Restaurant, SS Ram Gulam Marg, Ballard Estate, Fort, Mumbai- 400 001.

Telephone no.: 022-22694984/85

Email ID: mangrovefn@gmail.com

