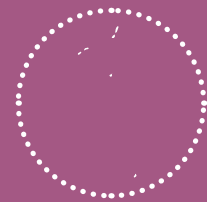


Marine Fisheries Census 2016



Lakshadweep



सत्यमेव जयते

Department of Fisheries
Ministry of Fisheries, Animal Husbandry
and Dairying, Govt. of India



**Fishery Survey
of India**
Govt. of India

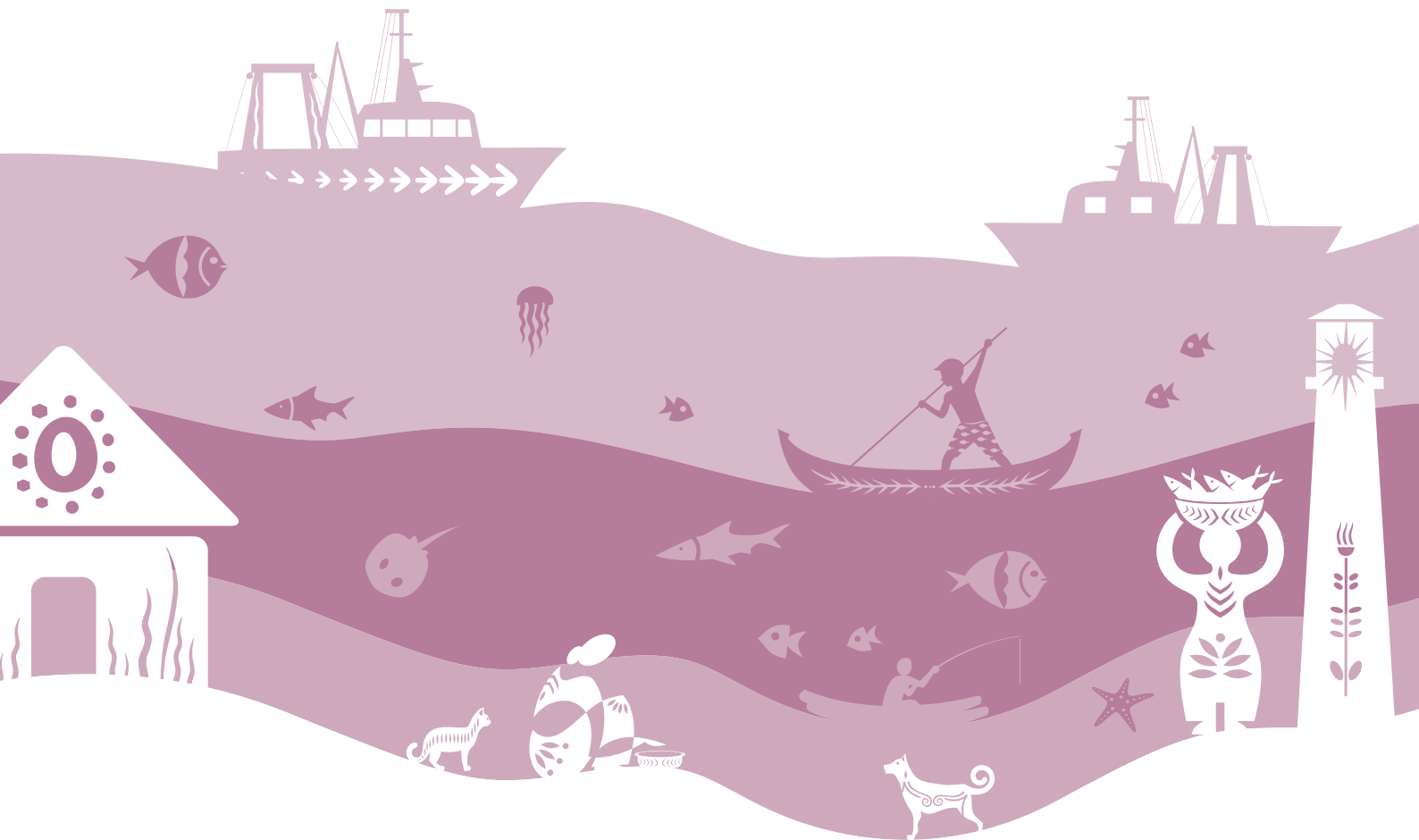


Central Marine Fisheries Research Institute
Indian Council of Agricultural Research



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of India**
Govt. of India



Central Marine Fisheries Research Institute
Indian Council of Agricultural Research



Marine Fisheries Census 2016 **Lakshadweep**

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सत्यमेव जयते

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FISHERY SURVEY OF INDIA

Preface

This is a very pleasant moment for me to put the foreword for this extremely valuable book for the marine fisheries management arena.

India is bestowed with nine coastal States and four Union Territories (UT) covering the coastline of the country. Length of Country's coast line is 8118 km including all the coastal States and UTs. Total Exclusive Economic Zone (EEZ) is 2.02 million square kilometres. Among these, the Andaman and Nicobar Islands and Lakshadweep Islands play vital roles on contributing to the national marine capture fisheries production. Not only the production, but also the man and machine behind the production. Unfortunately, till 26th December 2004, these fishermen were not much talked about population. They were considered and included on the general national population register. When Tsunami struck the coasts of India on the above fateful date, it completely devastated the coast with huge loss of lives and properties. Post Tsunami, to start with rehabilitation program, it was realised that the nation is lacking with adequate information about the fisher folk population. Thus the Government of India initiated the mission of Marine Fisheries Census for exclusive enumeration of fisher folk population and their world.

First marine fisheries census started on 2005 with the time scale of five years. On this series, the third census was conducted in 2016. Andaman and Nicobar group of islands and Lakshadweep islands were also covered under the census.

India's smallest Union Territory, Lakshadweep islands is the conglomeration of 36 islands comprising of ten inhabited islands, 17 uninhabited islands attached islets, four newly formed islets and five submerged reefs. Total population of Lakshadweep Islands is 64,473 (Census 2011). Fisher folks, with a population size of 27,934 (marine census 2016) constituted 43.32% of the total population. The sex ratio was 913 females to 1000 males. This manuscript covers almost everything of a fisher's living such as housing, population distribution, education, occupation, gender based fishing and allied activities, religion and community, co-operative society, aquaculture practice, lifesaving and electronic equipment, crafts, amenities, infrastructure etc. Many more attributes related to fisher life are also included in this publication.

Being a fishery professional for more than four decades, I personally feel this publication is an epitome of many facets of coastal fisherfolk population of Lakshadweep Islands. It will certainly serve as a ready reckoner for the Government, decision makers, professionals, academia and will go a long way in contributing to the citizen science. Contributions of enumerators, scientists, administrators, policy makers and each and every one are duly acknowledged. Efforts of team FSI and CMFRI were well appreciated for bringing out this publication during this tough situation of COVID-19 pandemic.

I thank each and every one for their contribution on this massive national work of Marine Fisheries Census 2016.

(Dr. L. Ramalingam)
DIRECTOR GENERAL (I/C)

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Summary

Marine Fisheries Census 2016 of Union Territory (U.T.) of Lakshadweep was carried out in its 10 inhabited islands namely, Agatti, Amini, Andrott, Bitra, Chetlat, Kadmat, Kalpeni, Kavaratti, Kiltan and Minicoy. The scope, time frame, and terms used are described in Marine Fisheries Census 2016 India Report. Summary of significant features noted from the census data collected from these islands are given below:

Fishermen families

- There are 4,163 marine fishermen families in Lakshadweep islands, the Agatti island having the maximum of 928 families followed by Minicoy with 800 families and Kadmat with 681 families. The least was 44 families in Bitra island.
- Out of the 4,163 marine fishermen families in Lakshadweep 3,003 (72.1%) are traditional fishermen families.

Population

- The total marine fishermen population in Lakshadweep Islands is 27,934 with maximum of 7,536 in Minicoy followed by 4,899 in Agatti and 4,156 in Kadmat. The minimum number of marine fishermen population is in Bitra (222).
- In Lakshadweep, 73.1% of the marine fishermen population is adults, 8.0% are children below 5 years of age and 18.9% are children of 5 years or more age.

- Including children, here the female to male ratio is 913 females per 1,000 males and this ratio is maximum in Kadmat Island (989) and the minimum is 740 in Andrott Island.

Poverty

- There are 1,170 (28.1%) marine fishermen families below poverty line (BPL) in Lakshadweep with maximum in Kadmat (267) and minimum in Bitra (14).

Education

- In Lakshadweep Islands, 55.4% of the eligible marine fisherfolk are educated with different education levels. Nearly 52.0% of males and 48.0% of females in the union territory are educated.
- In the U.T., about 19.8% of the eligible people are with primary level of education, 23.4% are with higher secondary level, 8.0% are above higher secondary level and 4.2% are with graduation or above levels of education.

Occupation

- There are 6,488 active fishermen in the Lakshadweep Islands, of whom 2,415 (37.2%) are full time fishermen engaged in actual fishing and 3,983 (61.4%) are engaged as part-time fishermen.

- There are 2,553 fisherfolk engaged in fishing allied activities, of whom 28.9% are engaged in marketing of fish, 12.1% are engaged in making/repairing net and 26.4% engaged in curing/processing.
- In Lakshadweep 58.5% of the fisherfolk engaged in marketing of fish are females, 79.0% of those engaged in making/repairing of net are males and 73.4% of those engaged in curing/processing are females.

Religion

- In Lakshadweep, the entire marine fishermen family belongs to Islam religion.

Membership in co-operatives

- There are 2,477 fisherfolk in Lakshadweep having membership in co-operatives, of which 12.9% have membership in fisheries co-operatives and rest of them have membership in other co-operatives.

Craft owned by the fisherfolk

- The total number of fishing crafts fully owned by the marine fisherfolk in Lakshadweep is 1,392, in which only 2 are mechanized, 25.1% are vessels with inboard engines, 26.0% are vessels with outboard engines and 48.8% are non-motorized crafts.
- Other than full ownership, 135 marine fishermen families have shared ownership in fishing crafts. Out of this, the share in mechanized fishing vessel is for only one family, 84 families have shares in inboard vessels and 50 families have shares in outboard vessels.

Life saving and electronic equipment

- In Lakshadweep, 1,130 marine fishermen families have life saving equipment (27.1%) and 1,824 families have mobile phones (44%).
- Among fisherfolk families in the state, only 261 (6.3%) families have GPS and only 2 (0.05%) families have radio phones.

Infrastructure

- Out of the 4,163 families in Lakshadweep, 3,974 (95.5%) families live in *pucca* house and only 189 families live in *kutchha* houses.
- About 99.4% of the houses in this U.T. are electrified and only 0.4% of the houses are without toilet facility.
- The source of potable water in Lakshadweep is well water for 65.4% of the fishermen families and tap water is the second major source of potable water, for 21.9% of the families.
- In Lakshadweep, all the islands have hospitals, post office, police station and mobile phone coverage.
- Only two islands have cyclone shelters but out of the 10 islands 8 have boat jetty, 5 have markets and auction shed exists in Kalpeni Island only.
- All islands are having primary schools. Except Bitra all other islands in Lakshadweep have secondary schools, 3 islands have collages and 2 have technical institutions.
- Banks exist in all the islands except Bitra and there are community centers in 3 islands.
- There are 3 islands with boat yards and 4 islands have ice factories. Freezing plant and processing plant exists only in Minicoy and only Chetlat Island have a cold storage.

Island-wise tables



List of Island-wise tables

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TABLE 1. ISLAND SUMMARY

SI No.	Name of the Island	Fishermen families	Traditional fishermen families	BPL families	Fisherfolk population
1	Agatti	928	611	205	4,899
2	Amini	507	507	137	2,912
3	Andrott	185	170	80	1,446
4	Bitra	44	42	14	222
5	Chetlat	247	207	45	1,482
6	Kadmat	681	533	267	4,156
7	Kalpeni	227	186	105	1,440
8	Kavaratti	365	304	118	2,717
9	Kiltan	179	45	49	1,124
10	Minicoy	800	398	150	7,536
LAKSHADWEEP TOTAL		4,163	3,003	1,170	27,934

TABLE 2. HOUSING - SCALE & AMENITIES (No. of houses)

SI No.	Name of the Island	Total households	Pucca	Kutcha	Rooms less than 3	Without toilet	Electrified	Potable water source access			
								Tap water	Well	Hand pump/Borewell	Others
1	Agatti	928	876	52	471	4	927	510	383	11	24
2	Amiñi	507	504	3	11	0	505	0	505	0	2
3	Andrott	185	147	38	24	0	184	15	169	0	1
4	Bitra	44	43	1	9	3	44	0	0	0	44
5	Chetlat	247	235	12	28	1	247	2	240	0	5
6	Kadmat	681	676	5	120	2	681	23	655	0	3
7	Kalpeni	227	227	0	13	2	227	218	9	0	0
8	Kavaratti	365	358	7	56	2	364	13	351	0	1
9	Kilitan	179	173	6	46	0	177	0	179	0	0
10	Minicoy	800	735	65	28	1	783	131	232	41	396
LAKSHADWEEP TOTAL		4,163	3,974	189	806	15	4,139	912	2,723	52	476

TABLE 3. POPULATION DISTRIBUTION STRUCTURE

SI No.	Name of the Island	Male						Female		Total	Average family size	Sex ratio (females per 1,000 males)
		Adult		Children		Adult	Children					
		Upto 5 yrs	Above 5 yrs	Upto 5 yrs	Above 5 yrs		Upto 5 yrs	Above 5 yrs				
1	Agatti	1,907	164	536	1,707	115	470	4,899	5	879		
2	Amini	1,161	131	249	1,000	114	257	2,912	6	890		
3	Andrott	614	75	142	429	58	128	1,446	8	740		
4	Bitra	86	11	24	70	10	21	222	5	835		
5	Chetlat	525	66	170	456	69	196	1,482	6	947		
6	Kadmat	1,473	177	440	1,478	162	426	4,156	6	989		
7	Kalpeni	587	57	122	481	67	126	1,440	6	880		
8	Kavaratti	1,083	137	260	905	98	234	2,717	7	836		
9	Kiltan	403	56	117	385	55	108	1,124	6	951		
10	Minicoy	2,858	326	645	2,822	279	606	7,536	9	968		
LAKSHADWEEP TOTAL		10,697	1,200	2,705	9,733	1,027	2,572	27,934	7	913		

TABLE 4. EDUCATIONAL STATUS

SI No.	Name of the Island	Primary		Higher Secondary		Above Higher Secondary		Graduation and above	
		Male	Female	Male	Female	Male	Female	Male	Female
1	Agatti	909	765	850	728	119	109	54	35
2	Amini	395	406	453	431	212	120	94	64
3	Andrott	89	71	139	117	64	34	20	14
4	Bitra	9	8	11	8	5	1	2	3
5	Chetlat	120	158	252	249	110	95	73	28
6	Kadmat	438	492	333	313	260	265	104	130
7	Kalpeni	53	47	207	182	60	51	54	76
8	Kavaratti	246	219	463	389	161	135	31	55
9	Kilitan	99	93	117	110	57	62	38	53
10	Minicoy	238	232	334	335	70	72	55	96
LAKSHADWEEP TOTAL		2,596	2,491	3,159	2,862	1,118	944	525	554

TABLE 5. ACTIVE FISHERFOLK

SI No.	Name of the Island	Actual fishing		Fish seed collection				Total
		Part time		Full time		Part time		
		Male	Female	Male	Female	Male	Female	
1	Agatti	684	895	7	0	3	2	1,591
2	Amini	242	477	18	0	18	9	764
3	Andrott	185	76	8	0	2	3	274
4	Bitra	36	34	0	0	0	0	70
5	Chetlat	46	245	0	0	0	0	291
6	Kadmat	338	505	0	0	0	0	843
7	Kalpeni	321	142	13	0	2	3	481
8	Kavaratti	279	281	1	0	0	0	561
9	Kiltan	92	116	0	0	0	0	208
10	Minicoy	192	1,212	0	0	0	1	1,405
LAKSHADWEEP TOTAL		2,415	3,983	47	0	25	18	6,488

TABLE 6. OCCUPATION PROFILE

SI No.	Name of the Island	Active fishermen	No. of members involved in fishing allied activities						Other than fishing	Total occupied
			Marketing of fish	Making/ Repairing Net	Curing/ Processing	Peeling	Labourer	Others		
1	Agatti	1,591	11	7	447	24	38	0	42	2,160
2	Amini	764	28	32	6	1	3	0	40	874
3	Andrott	274	79	50	33	0	28	0	44	508
4	Bitra	70	0	0	0	0	0	0	0	70
5	Chetlat	291	0	34	1	0	18	0	45	389
6	Kadmat	843	66	78	13	1	0	0	174	1,175
7	Kalpeni	481	34	19	14	0	40	0	63	651
8	Kavaratti	561	49	34	61	25	1	0	60	791
9	Kilitan	208	37	2	31	0	0	0	0	278
10	Minicoy	1,405	434	54	68	652	0	0	1,380	3,993
LAKSHADWEEP TOTAL		6,488	738	310	674	703	128	0	1,848	10,889

TABLE 7. GENDER-WISE FISHING ALLIED ACTIVITIES

SI No.	Name of the Island	Marketing of fish		Making/ Repairing Net		Curing/ Processing		Peeling		Labourer	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1	Agatti	0	11	5	2	99	348	6	18	33	5
2	Amini	28	0	32	0	6	0	1	0	3	0
3	Andrott	70	9	47	3	9	24	0	0	28	0
4	Bitra	0	0	0	0	0	0	0	0	0	0
5	Chetlat	0	0	34	0	0	1	0	0	18	0
6	Kadmat	59	7	76	2	9	4	1	0	0	0
7	Kalpeni	21	13	11	8	3	11	0	0	22	18
8	Kavaratti	37	12	21	13	22	39	6	19	0	1
9	Kiltan	37	0	2	0	31	0	0	0	0	0
10	Minicoy	54	380	17	37	0	68	5	647	0	0
LAKSHADWEEP TOTAL		306	432	245	65	179	495	19	684	104	24

TABLE 8. RELIGION AND COMMUNITY (No. of families)

SI No.	Name of the Island	Religion		Total	Community
		Islam	Others		
1	Agatti	928	0	928	928
2	Amini	507	0	507	507
3	Andrott	185	0	185	185
4	Bitra	44	0	44	44
5	Chetlat	247	0	247	247
6	Kadmat	681	0	681	681
7	Kalpeni	227	0	227	227
8	Kavaratti	365	0	365	365
9	Kiltan	179	0	179	179
10	Minicoy	800	0	800	800
LAKSHADWEEP TOTAL		4,163	0	4,163	4,163

TABLE 9. MEMBERSHIP IN CO-OPERATIVES

SI No.	Name of the Island	Members in			Total
		Fisheries co-operatives	Other co-operatives		
1	Agatti	174	1	175	
2	Amini	0	3	3	
3	Andrott	4	0	4	
4	Bitra	0	0	0	
5	Chetlat	0	51	51	
6	Kadmat	5	1,678	1,683	
7	Kalpeni	13	27	40	
8	Kavaratti	113	396	509	
9	Kiltan	1	1	2	
10	Minicoy	10	0	10	
LAKSHADWEEP TOTAL		320	2,157	2,477	

TABLE 10. LIFE SAVING EQUIPMENT & ELECTRONIC EQUIPMENT (No. of families)

SI No.	Name of the Island	Life saving equipment	Electronic /Communication gadgets			
			Mobile phone	GPS	Radio phone	Others
1	Agatti	272	311	0	0	22
2	Amini	75	81	25	0	0
3	Andrott	157	172	49	0	0
4	Bitra	13	41	11	0	0
5	Chetlat	164	222	28	0	0
6	Kadmat	44	288	22	0	0
7	Kalpeni	137	159	53	0	0
8	Kavaratti	216	233	38	0	6
9	Kiltan	22	93	1	0	0
10	Minicoy	30	224	34	2	4
LAKSHADWEEP TOTAL		1,130	1,824	261	2	32

TABLE 11. CRAFT OWNED BY FISHERFOLK (100% ownership)

SI No.	Name of the Island	Mechanized	Inboard	Outboard	Non-motorized
1	Agatti	1	83	94	126
2	Amini	0	28	25	1
3	Andrott	0	62	13	38
4	Bitra	0	9	16	11
5	Chetlat	0	25	32	31
6	Kadmat	0	31	49	213
7	Kalpeni	0	36	71	96
8	Kavaratti	1	36	7	74
9	Kiltan	0	11	19	46
10	Minicoy	0	28	36	43
LAKSHADWEEP TOTAL		2	349	362	679

TABLE 12. FAMILIES HAVING <100% OWNERSHIP OF FISHING CRAFT

SI No.	Name of the Island	Mechanized	Inboard	Outboard
1	Agatti	1	10	8
2	Andrott	0	12	9
3	Bitra	0	10	0
4	Chetlat	0	14	3
5	Kadmat	0	3	2
6	Kalpeni	0	9	21
7	Kavaratti	0	15	1
8	Kiltan	0	7	3
9	Minicoy	0	4	3
LAKSHADWEEP TOTAL		1	84	50

TABLE 13. PROFILE OF AMENITIES & FACILITIES

SI No.	Name of the Island	Islands having									
		Hospitals	Post offices	Police stations	Mob. phone coverage	Cyclone shelters	Boat Jetties	Market facilities	Auction sheds		
1	Agatti	1	1	1	1	0	1	1	0	0	
2	Amini	1	1	1	1	1	1	1	0	0	
3	Andrott	1	1	1	1	0	1	1	0	0	
4	Bitra	1	1	1	1	0	1	0	0	0	
5	Chetlat	1	1	1	1	0	1	0	0	0	
6	Kadmat	1	1	1	1	0	0	1	0	0	
7	Kalpeni	1	1	1	1	0	1	1	1	1	
8	Kavaratti	1	1	1	1	0	0	0	0	0	
9	Kiltan	1	1	1	1	0	1	0	0	0	
10	Minicoy	1	1	1	1	1	1	0	0	0	
LAKSHADWEEP TOTAL		10	10	10	10	2	8	5	1	1	

TABLE 14. INFRASTRUCTURE PROFILE

SI No.	Name of the Island	Number of							
		Primary schools	Secondary schools	Colleges	Technical Institutions	Banks	Fisheries Co-operative Societies	Other Co-operative Societies	Community centers
1	Agatti	5	1	0	0	1	1	2	0
2	Amini	6	1	0	0	1	0	1	0
3	Andrott	6	2	1	0	1	0	1	0
4	Bitra	1	0	0	0	0	1	1	0
5	Chetlat	1	1	0	0	1	0	1	1
6	Kadmat	3	2	1	0	1	0	1	0
7	Kalpeni	2	1	0	0	1	0	1	1
8	Kavaratti	3	2	2	1	4	1	9	0
9	Kiltan	4	1	0	1	1	1	4	1
10	Minicoy	3	1	0	0	2	1	3	0
	LAKSHADWEEP TOTAL	34	12	4	2	13	5	24	3

TABLE 15. INFRASTRUCTURE - FISHERY RELATED

SI No.	Name of the Island	Boat yards	Cold storages	Ice factories	Freezing plants	Processing plants
1	Agatti	1	0	1	0	0
2	Amini	0	0	0	0	0
3	Andrott	0	0	0	0	0
4	Bitra	0	0	0	0	0
5	Chetlat	1	1	0	0	0
6	Kadmat	0	0	1	0	0
7	Kalpeni	0	0	1	0	0
8	Kavaratti	1	0	1	0	0
9	Kiltan	0	0	0	0	0
10	Minicoy	0	0	0	1	1
LAKSHADWEEP TOTAL		3	1	4	1	1

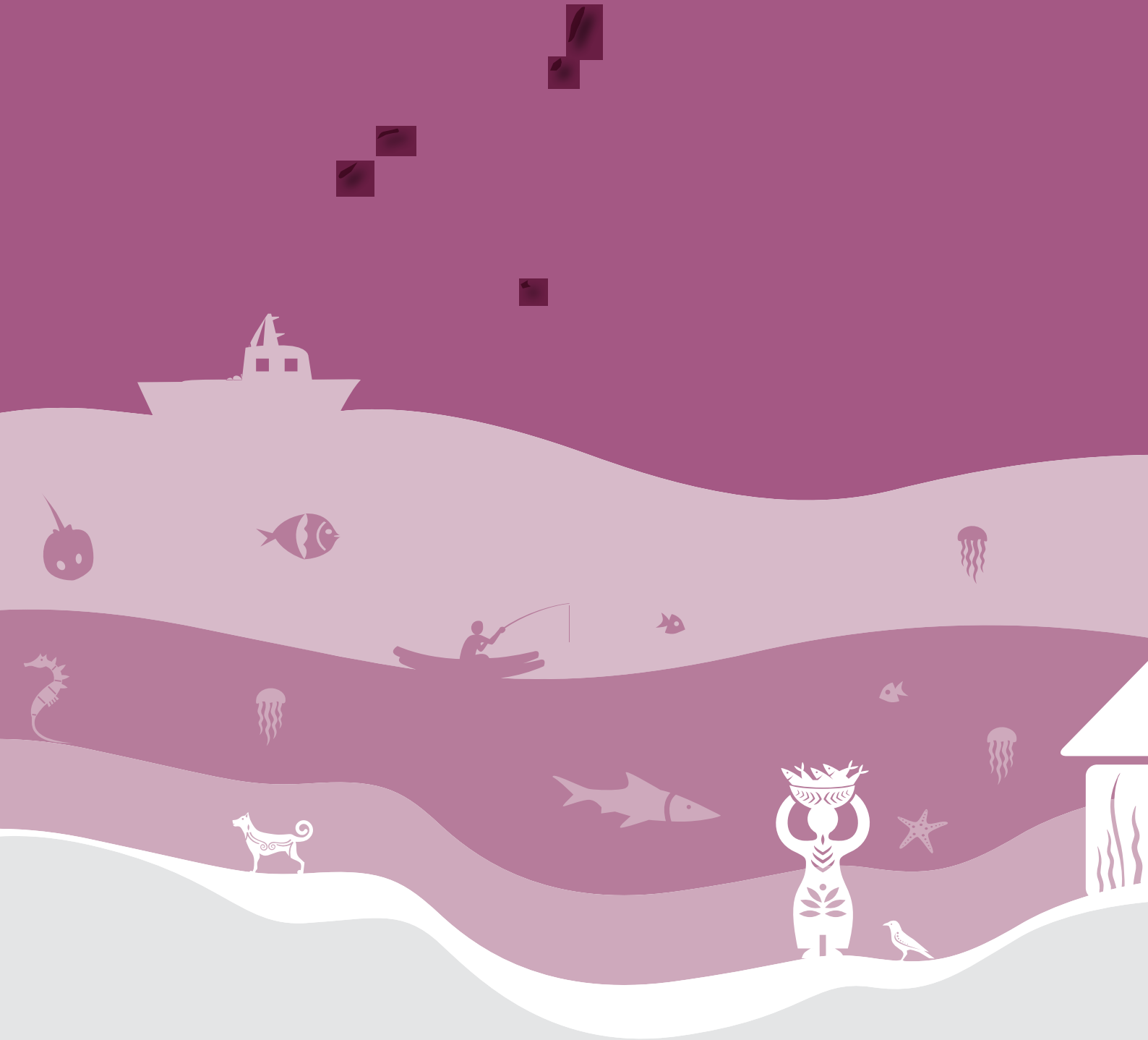
List of islands



Islands

1. Agatti
2. Amini
3. Andrott
4. Bitra
5. Chetlat
6. Kadmat
7. Kalpeni
8. Kavaratti
9. Kiltan
10. Minicoy





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