Status of Fisher Folk in Kanyakumari District, Tamil Nadu – Pre and Post Tsunami Scenario

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Abstract

Marine fisheries in India play an important role in the economy of the country. It helps in augmenting food supplies, generating employment, raising nutritional level and earning foreign exchange. The effective management of fisheries resources offers a promising solution to the food and malnutrition problem of our country. But the coastal regions are constantly threatened by disasters like cyclones, storm surge, coastal erosion etc. The tsunami has now added a new dimension to their safety and welfare issue. The tsunami that struck India and a few other countries on 26th December, 2004 devastated the coastal belts. There was huge loss of lives, boats and destruction of habitat and houses. The Central and State Governments in collaboration with NGOs and INGOs came out with numerous programmes to rehabilitate the life of the survivors of tsunami. Kanyakumari District, the study area is the second worst affected district by tsunami in Tamil Nadu following Nagapattinam District (Louis, 2005). This article intends to study the status of fisher folk in terms of income, expenditure, savings and debt after tsunami in the study area. Primary data were collected from the beneficiaries of the rehabilitation programme directly through structured interview schedule. Paired t test was administered using SPSS

KEYWORDS: Tsunami, status, income, expenditure, Assets

Introduction

In the life of man right from birth till death, he is expected to adapt to the changing phases of nature. Human beings as a whole should be prepared to face the challenges posed by nature. While encountering these changes, people themselves create certain problems, partly unwillingly and partly due to carelessness. Nature's fury and disasters are closely linked with environmental degradation of Asia-Pacific region. Disasters can have potentially serious economic implications, both for individual households and national economies. Tsunami which is one of the rarest of the rare occurrences, struck the Indian Coast on 26th December, 2004. The destruction was spread unimaginably far and wide from South East Asia to the African Countries (Murty, 2007). The damage caused by the earthquake and the Indian Ocean mega-tsunami along with the resultant floods was reported to be around 295,608 persons confirmed dead or missing and over a million left homeless. In addition to the large number of local residents, up to 5000 foreign tourists were among the dead (Gupta, 2006). In Asia, the tsunami had the greatest impact on rural coastal communities, many of which were already in trouble.

In India, the tsunami affected nearly 2,260 kilometres of the mainland coastline with tidal waves upto 10 metres high penetrating upto 3 kilometres inland, taking at least

10,881 lives and affecting more than 2.79 million people across 1089 villages with 5792 persons reported missing and 6913 injured (TISS, 2005). In monetary terms, the damage was estimated at about Rs.11, 544.91 crore ie 342.67 crore in Andhra Pradesh, Rs. 2371.02 crore in Kerala, Rs.4528.66 crore in Tamil Nadu, Rs.466 crore in Pondicherry and Rs.3836.56 crore in the Andaman and Nicobar Islands (Jeyanth, 2007).

Statement of the Problem

Marine fisheries in India play an important role in the economy of the country. It helps in augmenting food supplies, generating employment, raising nutritional level and earning foreign exchange. The effective management of fisheries resources offers a promising solution to the food and malnutrition problem of our country. But the coastal regions are constantly threatened by disasters like cyclones, storm surge, coastal erosion etc. The tsunami has now added a new dimension to their safety and welfare issue. The tsunami that struck India and a few other countries on 26th December, 2004 devastated the coastal belts. There was huge loss of lives, boats and destruction of habitat and houses. The Central and State Governments in collaboration with NGOs and INGOs came out with numerous programmes to rehabilitate the life of the survivors of tsunami.

Objective of the Study

This article intends to study the status of fisher folk in terms of income, expenditure, savings and debt after tsunami in the study area

Hypotheses of the Study

1. There is no significant increase in annual income of the sample households after tsunami.
2. There is no significant increase in annual expenditure of the sample households after tsunami.
3. Assets owned by the sample households and their value have not increased after tsunami.

Review of Literature

The social status in fishing communities is largely a function of fishing income and wealth and in the community where only a few active fishermen have any economic interest outside their sector and both income and wealth are by and large determined by the control over fishing assets (John Kurien 1994). Greater proportion of catamaran owners living in thatched houses whereas that of mechanised boat owners living in terraced houses and savings was prominent in the post office and sangam for catamaran owners whereas it was prominent in commercial banks for mechanised boat owners(Akila Rajam 2002, Amirthaiyan,2005). The fisher folk were affected socially, economically, physically and psychologically and were satisfied with the rehabilitation programmes of the NGOs and not of the Government(Suriyan and Dinesh Kumar ,2006) the households who had been affected by the tsunami to a great extent or those who have had bad experience with the sea already before the tsunami were more likely to migrate than others. Factors like good access to information, higher education and the ownership of land and house decreased the households' likelihood of migration (Ulrike Grote et al, 2006) Income inequality was high among uneducated fishermen while it was low among the educated ones (Soumyendra Kishore Datta and Ruma Kundu,2007) Socio-economic backwardness stand as a hindrance for the development of the society(Sheela Immanuel and Syda Rao, 2008). Tsunami had affected the basic livelihood security of the people in

Andaman and the rehabilitation measures taken by them have improved the livelihood through creation of employment opportunities in various farm and non-farm activities (Ganesh Kumar et al 2009). The joint venture of the Government and NGOs generated economic boom in the coastal areas and brought change in the lives of the people which was reflected in very few school drop-outs, women picking up new skills and got empowered through SHGs (Ranjit Devraj, 2009)

Selection of Study Area, Sample Design and Tools of Analysis

Kanyakumari District, the study area is the second worst affected district by tsunami in Tamil Nadu following Nagapattinam District (Louis, 2005). Multi-stage sampling was used to choose the sample villages for in-depth study. Sample villages were selected on the basis of magnitude of damage caused by tsunami. The magnitude of damage experienced by the villages was assessed on the basis of three criterion viz. human lives lost, fully damaged houses and partially damaged houses. Eight villages had fallen under the entire three criterions. All the eight villages viz., Colachel, Azhikkal, Melamanakudy, Muttom, Kottilpadu, Keezhamanakudy, Kadiapattinam and Puthur were chosen for in-depth study. The total number of sample households was 501 ie. 73 under compensation for loss of life, 176 under new housing programme and 252 under repaired house. The number of sample households was 134 from Colachel, 83 from Azhikkal, 60 from Melamanakudy, 56 from Muttom, 59 from Kottilpadu, 43 from Kadiapattinam, 39 from Keezhamanakudy and 27 from Puthur. .

Primary data were collected from the beneficiaries directly through structured interview schedule. Qualitative data were collected through discussions and interviews with officials of the Government departments, NGOs, INGOs and Parish Priest of the respective villages to supplement and enrich the data. Paired sample t-test was used to study the change in income, expenditure and assets of the sample households after tsunami.

Status of the Sample Households

The status of the sample households have been described in terms of income, expenditure and assets before and after tsunami.

Sources of Income of the Sample Households

The income of the sample households comprises of the income from fishing and allied activities and other sources like job in private and public sectors. Fishing forms the main source of income and other sources do not make a substantial contribution to their income. The number of earning members had increased from 741 to 757 after tsunami. The percentage of fishing labourers had reduced from 43.49 per cent to 42.27 per cent after tsunami. The number of fibre / plywood maran owners had increased by 156. There are 30 women fish vendors. The percentage of public sector employees had decreased from 2.56 to 2.51, whereas that of private sector employees and overseas employment had increased from 12.28 to 13.08 and 7.29 to 8.32 respectively after tsunami.

Annual Income of the Sample Households

The annual income of the sample households ranges between less than Rs.50, 000/- and Rs.3 lakh. The percentage of sample households with annual income between Rs.50,000/- and Rs.1 lakh had increased from 40.92 to 46.91, those with annual income between Rs.1 lakh and Rs.1.5 lakh had increased from 10.18 to 15.17 after tsunami. Similarly increase in sample households under other categories of income is also found.

The paired't' test proved that the annual income of the sample households had on an average significantly increased after tsunami. Annual income had increased mainly due to the livelihood assistance given by the NGOs/ INGOs. The fishing crafts with inboard / outboard engines distributed by the NGOs/ INGOs had enabled the fishermen to go faster and deeper into the sea and get good catch.

Hypothesis Stated

H_0: There is no significant increase in annual income of the sample households after tsunami.

H_A: There is a significant increase in annual income of the sample households after tsunami.

In order to find out the change in the annual income of the sample households after tsunami in the sample villages paired't' test was administered. The result of the paired't' test is presented in Table No. 1

Table No. 1 Annual Income of the Sample Households before and After Tsunami– Paired' t' Test Result

Sl. No	Name of the Village	N	Mean		Standard Deviation		t-value	Sig. (2 tailed) *
			Before Tsunami	After Tsunami	Before Tsunami	After Tsunami		
1	Colachel	134	68201.49	77208.96	27808.63	31472.35	-2.948	0.004
2	Azhikkal	83	67320.48	80971.08	44265.79	45223.05	-4.391	0.000
3	Melamanakudy	60	84516.67	99413.33	52513.27	61720.09	-3.149	0.003
4	Muttom	56	75000.00	92732.14	43504.23	46004.94	-2.902	0.005
5	Kottilpadu	59	60196.61	72223.73	43205.26	53650.43	-4.275	0.000
6	Kadiapattinam	43	66558.14	77441.86	26212.78	23341.46	-3.205	0.003
7	Keezhamanakudy	39	78153.85	99323.08	28791.02	28132.34	-4.552	0.000
8	Puthur	27	66074.07	92888.89	42033.80	42828.22	-7.366	0.000

Source: Computed from Primary Data

* Significant at 5 per cent level

It is understood from Table No.1 that the mean annual income of the sample households in all the sample villages had increased after tsunami. The increase in annual income was attributed to the rise in price of fish and the increase in fish catch due to the distribution of fishing crafts according to the demands of fishermen by the NGOs/ INGOs. The results of the paired't' test indicates that the annual income of the sample households on an average had significantly increased after tsunami in all the sample villages. So the null hypothesis is rejected and the alternative hypothesis of a significant increase in annual income of the sample households after tsunami is accepted.

Annual Expenditure of the Sample Households

The percentage of sample households with annual expenditure of Rs.30, 000/- to Rs.60, 000/- had decreased from 65.07 to 41.12 whereas those under the category of Rs.60,000/- to Rs.90,000/- had increased from 27.94 to 39.52. Similarly there is an increase in the number of sample households under other categories of expenditure due to

the increase in general price level and change in the consumption pattern of the fisher folk.

Hypothesis Stated

Ho: There is no significant increase in annual expenditure of the sample households after tsunami.

$H_{A:}$ There is a significant increase in annual expenditure of the sample households after tsunami.

The paired‘t’ test shows that the annual expenditure of the sample households had significantly increased after tsunami. The paired‘t’ test was used to analyse the change in annual expenditure of the sample households after tsunami. Table No. 2 presents the result of paired‘t’ test.

Table No. 2 Annual expenditure of the sample households before and after Tsunami – paired‘t’ test result

Sl. No	Name of the Village	N	Mean		Standard Deviation		t-value	Sig. (2 tailed) *
			Before Tsunami	After Tsunami	Before Tsunami	After Tsunami		
1	Colachel	134	49569.59	64207.61	13566.91	20215.95	-7.325	0.000
2	Azhikkal	83	58720.78	66100.42	13559.76	21188.94	-2.926	0.004
3	Melamanakudy	60	55151.17	80054.58	16581.99	32400.69	-7.584	0.000
4	Muttom	56	72190.89	90467.32	33242.61	51071.56	-4.561	0.000
5	Kottilpadu	59	51603.22	66558.31	15831.83	26158.80	-5.308	0.000
6	Kadiapattinam	43	59512.33	66373.37	14737.45	13528.60	-3.172	0.003
7	Keezhamanakudy	39	62869.10	73648.21	17990.58	22084.96	-3.012	0.005
8	Puthur	27	59779.81	69088.52	15553.39	14593.57	-3.125	0.004

Source: Computed from Primary Data

* Significant at 5 per cent level

It is observed from Table No.2 that the mean annual expenditure of the sample households had increased in all the sample villages after tsunami. The paired‘t’ test value shows that the mean annual expenditure had significantly increased after tsunami in the sample villages. So the null hypothesis is rejected and the alternative hypothesis of a significant change in annual expenditure of the sample households after tsunami is accepted.

Assets of the Sample Households

The value of assets owned by the sample households ranges between less than Rs.1 lakh and Rs.5 lakh and above. The percentage of sample households which come under the category of Rs.1 to Rs.2 lakh and Rs.2 to Rs.3 lakh had decreased from 22.55 to 10.58 and 31.54 to 23.55 respectively after tsunami. There is a tremendous increase in the number of sample households under the categories of Rs. 4 to Rs5 lakh and Rs.5 lakh and above due to the housing and livelihood programme. The paired t’ test reveals that the assets owned by the sample households and their value had significantly increased after tsunami.

Hypothesis Stated

H_0: Assets of the sample households and their value have not increased after tsunami.

H_A: Assets of the sample households and their value have increased after tsunami.

Paired't' test was applied to test the hypothesis and the result is presented in Table No.3

Table No. 3 Assets of the sample households before and after tsunami - paired 't' test result

Sl. No	Name of the Village	N	Mean		Standard Deviation		t-value	Sig. (2 tailed) *
			Before Tsunami	After Tsunami	Before Tsunami	After Tsunami		
1	Colachel	134	340440.30	440119.40	1.2609E5	4.71691E5	-2.544	0.012
2	Azhikkal	83	225988.99	378994.82	1.01252E5	1.30512E5	-8.709	0.000
3	Melamanakudy	60	336008.33	402176.17	1.55130E5	1.06700E5	-3.091	0.003
4	Muttom	56	323562.50	412240.18	1.28463E5	1.39240E5	-4.085	0.000
5	Kottilpadu	59	211024.58	328950.41	1.14812E5	1.27196E5	-6.146	0.000
6	Kadiapattinam	43	278255.81	286209.77	1.41926E5	1.35160E5	-.686	0.497
7	Keezhamanakudy	39	203984.62	404813.59	1.17315E5	1.28163E5	-6.478	0.000
8	Puthur	27	167703.70	363198.52	77307.98	1.59257E5	-6.602	0.000

Source: Computed from Primary Data

* Significant at 5 per cent level

From Table No. 3 it is inferred that the mean value of assets of the sample households in the sample villages had increased after tsunami. The't' test value shows that the mean assets of the sample households had significantly increased in Colachel, Azhikkal, Melamanakudy, Muttom, Kottilpadu, Keezhamanakudy and Puthur. Though the mean value of assets of the sample households had increased after tsunami in Kadiapattinam, the increase was not significant since the number of beneficiaries of new house was the minimum of three when compared to other sample villages. So the null hypothesis is rejected and the alternative hypothesis of assets of the sample households and their value has increased after tsunami is accepted.

Conclusion

Fishing forms the main source of income. The number of earning members of the sample households had increased after tsunami. Fishing labourers were the dominant group both before and after tsunami. The positive change after tsunami was found

prominent under fishing by plywood/ FRP maran. The annual income, annual expenditure and assets on an average had increased significantly after tsunami.

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