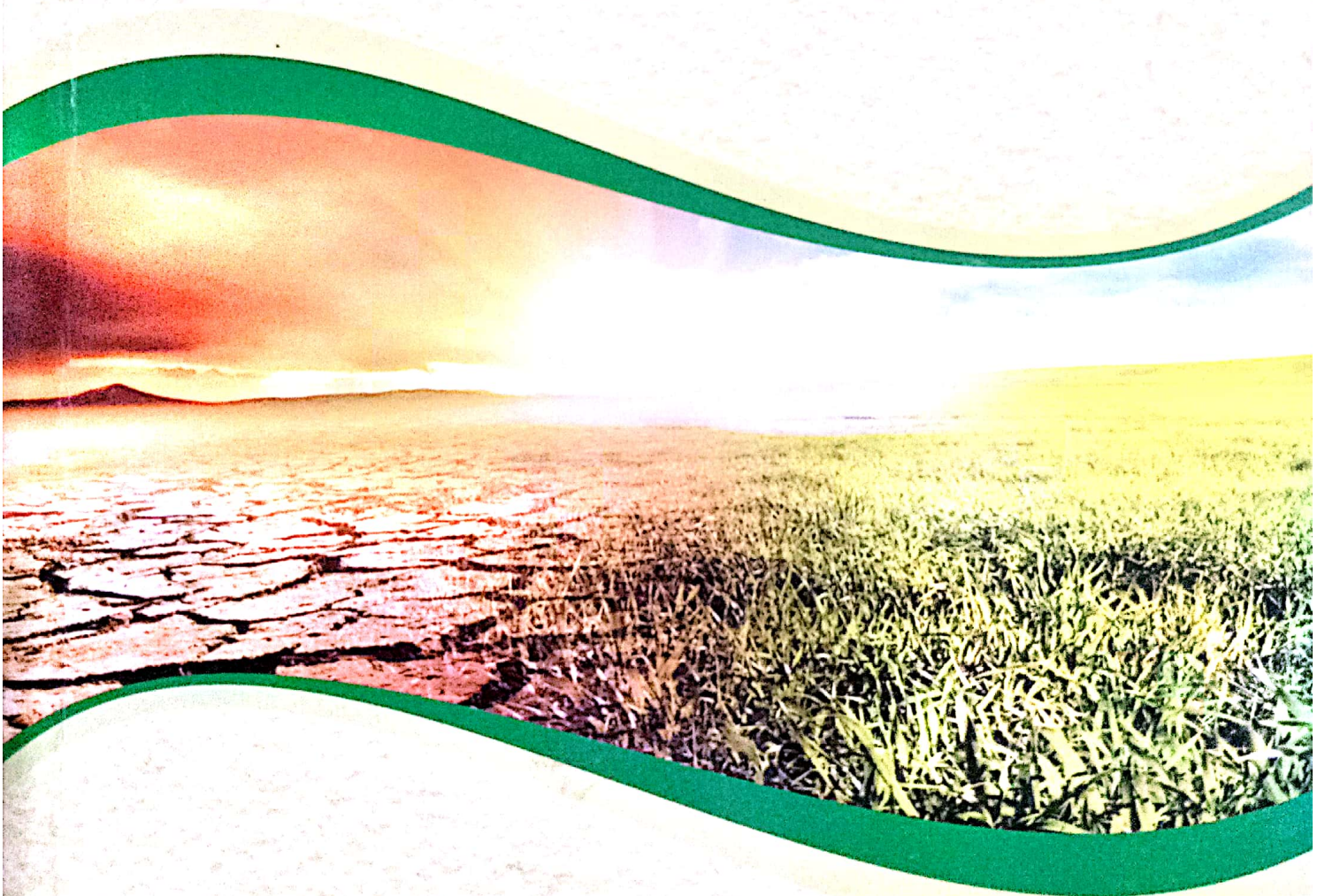



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June to November 2017**

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**Peer Reviewed Referred
and UGC Listed Journal**




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Assit. Prof. Vinay Shankarrao Hatole

M.Sc (Math's), M.B.A. (Mkt), M.B.A (H.R),
M.Drama (Acting), M.Drama (Prod & Dirt), M.Ed.

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E-mail : ajanta1977@gmail.com, www.ajantaprakashan.com

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Role of Government through Subsidies and Schemes for the Welfare of Fishing Community in Goa

Ms. Sanchiliana Faria

Associate Prof. Department of Commerce, MES College of Arts & Commerce, Zuarinagar, Goa.

Dr. Manoj S. Kamat

Associate Prof. Department of Commerce & Management, VVM's Shree Damodar College of Commerce & Economics, Margao-Goa.

Abstract

In this study an attempt is made to evaluate the benefits of each subsidy/scheme provided by the Government of Goa for the welfare of fishing community from 2012-16 with the help of percentage analysis by using secondary data. The analysis of the subsidies/ schemes showed that maximum beneficiaries have availed fuel subsidy and general insurance scheme and the least availed scheme is the National Welfare fund for Development of Fishermen Village Housing. The percentage of government grant to total GSDP towards the fisheries subsidies in Goa has increased for the last 4 years. Policy intervention is necessary to ensure monitoring of the subsidies provided to the fishermen to ensure long term sustainability as well as nutritional security.

Keywords: Subsidies, Centrally and State sponsored schemes, Blue Revolution.

Introduction

Fisheries subsidies are money/ services from government used to support fishing industry. The top three subsidizing countries of the world are Japan 4.5 billion \$, China 4.5 billion \$ and US 4.098 \$ followed by the European Union. Every year \$35 billion in subsidies are invested into fisheries industries around the world and total global revenue from fishing worldwide is 90 \$. The three main types of subsidies are capacity enhancing subsidies, beneficial subsidies and ambiguous subsidies. Capacity enhancing subsidies allow fishermen to fish more such as tax breaks on fuel, purchase bigger boats engines; improved gear but they decrease fish stock due to overexploitation. Beneficial subsidies help to create sustainability of the fish stocks such as fisheries management, research & development and regulation enforcement. Ambiguous subsidies have both effects capacity enhancing and beneficial subsidies helping fisheries to ensure sustainability. However, Vivas (2017) argues that subsidies create incentives to deplete resources faster.

It is believed that employment security and social security can be achieved by reducing deprivation or vulnerability with the help of subsidies, Kurien (2006). Subsidies and state intervention are essential for the

sustenance of small-scale fisheries across the world and are also necessary to promote sustainable practices, Sagan(2014). However, there is an argument that subsidies in fisheries produce unfair production distortions and contribute to unsustainable fisheries across the world, Rosenberg *et al.*(1993). There are ongoing negotiations by the WTO on issue of subsidies for the past 15 years that subsidies which cause overexploitation of fisheries resources should be discontinued. However, Economic theory demonstrates that fisheries that do not receive subsidies face a disadvantage in the world market, Bahety & Mukiibi (2016).

1.2) Objectives

In this study an attempt is made to evaluate the benefits of each scheme/subsidy provided by the Government in Goa for the traditional & the mechanized fishermen from 2012-16 and the number of beneficiaries who have benefited from the financial assistance. The study has offered insights into the financial and physical achievement into the operation of government subsidies and the performance of each scheme.

The objectives outlined are as follows:

- 1) To study the different subsidies/schemes through which financial assistance offered by the Government of Goa for the welfare of traditional and mechanized trawlers/purseiners.
- 2) To examine the impact of physical and financial achievement of the various schemes/subsidies availed by the fishing community in Goa.

Research Methodology

The present paper is totally based on secondary data and literature from journals, websites, and government publications. The secondary data is collected for four financial years from 2012-13 to 2015-16 from the Department of Fisheries, Government of Goa.

Review of Literature

International studies on Subsidies/Schemes : Gareth(2001)in his research analyzed fisheries subsidies and overfishing and suggested that member countries should call on each other to shift from giving 'harmful' subsidies to beneficial subsidies that contribute to sustainability, including marine conservation, research and creation of marine protected areas.Mensah *et al.* (2013) examined that subsidies given to the Ghana's marine artisanal fisheries directly were subsidies that enhanced capacity. Lee & Midani (2013)examined the Impact of Fuel Subsidies on Level of Fishing Effort in South Korea. According to them fuel subsidies impact on fishing has fluctuated considerably among fisheries and countries. The authors suggested in their study that in order to have good policies for fuel subsidies and to control overfishing, government should closely look for the level of fishing efforts of fishermen.However, Sumaila *et al.* (2016)recommended thatthere is a need for the government to examine the subsidies that could be most beneficial and also monitor the impact of subsidies to control overfishing, and redirect the subsidies for capacity enhancing to support activities associated with sustainability.

Indian Studies on Subsidies: Sumaila *et al.* (2010) in their study found that subsidies are not only major drivers of overfishing but also promote other destructive fishing practices such as high seas bottom trawling, which would not be profitable without its large fuel subsidies. Aswathy & Salim (2012) in their study discussed about the subsidies provided and its impact on the fishing industry in US, Europe and India. They suggested that there is an urgent need to regulate fisheries subsidies due to the negative impact that subsidies have on trade, environment and sustainable development.

Financial assistance through various schemes by the Government of India

The Government of India has implemented various centrally sponsored schemes since 1964 through which financial assistance is given for the welfare of the fishing community in India through the Department of Animal Husbandry, Dairy and Fishery, MPEDA, National Fisheries Development Board of India and Fishcopped. The main objective of the schemes is to develop the fisheries sector and improve the socio-economic conditions of the fishing industry. Large funds are being transferred to States under these Schemes. The fishery subsidy schemes at the central, state and union territory level provided for subsidies were worth Rs 284 crores in 2014-15, and they mainly aimed to protect and secure the livelihood of traditional and poor fishing communities, Planning Commission (2016). During the year 2016, out of the total subsidies, Tamil Nadu led the list with Rs 169.3 crores out of which Rs 148 crore was for fuel, followed by Goa Rs 29.35 crores, Maharashtra Rs 19.4 crore, Karnataka Rs 15.1 crore, and Gujarat Rs 11.9 crore, Andhra Pradesh Rs 6 crore. Daman & Diu Rs 2.34 crore, Andaman & Nicobar Rs 97 lakhs and Lakshadweep Rs 79 lakhs. The subsidies were given to traditional and mechanized fishermen with registered crafts and fisheries co-operatives societies for the year 2014-15 Arun, (2016). Realizing the great scope for the development of fisheries sector, the Prime Minister called for a "Revolution" in the fisheries sector and named it as "Blue Revolution". The Ministry of Agriculture and Farmers Welfare, Department of Animal Husbandry, Dairying & Fisheries has restructured the scheme by merging all the ongoing schemes under an umbrella of Blue Revolution to be implemented during five years (2015-16 to 2019-20), GOI, Ministry of Agriculture, Department of Animal Husbandry, Dairy & Fisheries, (2016). Blue Revolution, the Neel Kranti Mission, (2016) has the vision to achieve economic prosperity of the country and the fishers as well as contribute towards food and nutritional security for fisheries development in a sustainable manner, keeping in view the bio-security and environmental concerns. This umbrella scheme will cover inland fisheries, aquaculture, marine fisheries including deep sea fishing, mariculture and all activities undertaken by the National Fisheries Development board towards realizing "Blue revolution", National Fisheries, Development Board GOI, (2016).

Impact of schemes/ subsidies given in the form of financial assistance by the Central & State government to the traditional and mechanized fishermen in Goa

The Central Government as well as the State Government of Goa has implemented various subsidies/ schemes for the welfare of traditional and mechanized fishing community. The Government of Goa also implements various developmental as well as welfare schemes by providing financial assistance for the upliftment of the fishermen and fishing industry of Goa through the Directorate of Fisheries department. The government provides 13 subsidies, and 6 are welfare schemes. 17 subsidies are related to capture fishing (excluding 1 for Brackish water Aquaculture Farm and another 1 for Co-operative societies). The schemes are classified as i) Schemes to develop the fishing sector and ii) To improve the socio-economic conditions of the fishermen. Schemes are further classified in three categories as follows: (i). Centrally sponsored schemes-schemes fully sponsored by the central government. (ii). State sponsored schemes-schemes fully sponsored by the state &(iii). Centrally and state sponsored schemes.-schemes sponsored by centre and state.

The analysis of these subsidies/ schemes provided to the fishermen in Goa with respect to key changes and their implications follows as under:

Results and Discussion

i) Financial assistance for purchase of outboard motors : This scheme was implemented from 1992 and is in force for the last 23 years. Under this scheme, Government provides subsidy to the traditional fishermen to purchase outboard canoe upto Rs 60,000 till 2015. An amendment was made to this scheme in 2016, Official Gazette, series 1, No 36, 6th Dec, (2016) and Central Government amended the scheme under Blue Revolution and subsidy was enhanced from Rs 60,000 to Rs 90,000 per motorized canoe. As per the amendments, the beneficiary is entitled for financial assistance to the extent of 75% of the cost limited to Rs.90,000/- 25% to be borne by state ie Rs 30,000 and 50% ie Rs 60,000 by the centre.

Table 1: Financial Assistance for construction/Purchase of OBM

| Details | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Total |
|-------------------------|---------|---------|---------|---------|--------|
| Value (Rs in Lakhs) | 29.93 | 12 | 28.20 | 31.80 | 101.93 |
| Number of Beneficiaries | 53 | 20 | 47 | 53 | 173 |

Source: Compiled by Researcher, from the raw data of Directorate of Fisheries, Govt, Goa

The above table 1, shows that in 2012-13 on an average each beneficiary received an amount of Rs 56,472 and from 2013-2016 each beneficiary received an amount of Rs 60000 to purchase one motor.

ii) Financial assistance to fishermen for purchase/ construction of Wooden Fibre Reinforced plastic canoe: This scheme was implemented in the year 1998 to uplift the traditional fishermen by providing

them financial help upto 50% of the cost limited to Rs.60,000/- per craft in the form of subsidy for construction/ purchase of FRP/ Wooden fishing craft from 26 to 36 size feet every four years.

Table 2: Financial assistance to fishermen for purchase/construction of Wooden Fibre Reinforced plastic canoe

| Details | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Total |
|-------------------------|---------|---------|---------|---------|--------|
| Value (Rs in Lakhs) | 29.93 | 66.45 | 43.23 | 54.22 | 193.83 |
| Number of Beneficiaries | 72 | 114 | 73 | 93 | 352 |

Source: Compiled by Researchers, from raw data of Directorate of Fisheries, Govt, Goa

The table 2 shows that the number of beneficiaries who availed this scheme shows variations. The amount sanctioned by government per traditional canoe owner in 2012-13 was Rs 41,569, in 2013-14 Rs 58,289, 2014-15 Rs 59,219, and 2015-16 Rs 58,301.

iii) Safety of fishermen at Sea : This centrally sponsored scheme ensures safety of fishermen at sea. Mechanized fishermen can avail this scheme to purchase safety equipments upto 75% unit cost of kit limited to Rs 1,50,000.

Table 3: Safety of Fishermen at Sea

| Details | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Total |
|-------------------------|---------|---------|---------|---------|--------|
| Value (Rs in Lakhs) | 73.35 | 6.14 | 159.37 | 40.66 | 279.52 |
| Number of Beneficiaries | 86 | 338 | 338 | 160 | 1100 |

Source: Compiled by Researchers, from the data of Directorate of Fisheries, Govt, Goa.

The above table 3 shows that the scheme for safety of fishermen at sea shows variations. The amount received by each beneficiary was Rs 85,291 in 2012 -13, Rs 47,150 in 2014-15, Rs 25,412 in 2015 -16.

iv) Financial assistance for purchase of fuel (kerosene/petrol) to the fishermen for operation of outboard motors: The scheme was introduced in 2004 to help the fishermen in getting a regular supply of fuel (kerosene/petrol). The Fishermen using petrol OBM shall be eligible for subsidy upto a maximum of Rs.51,000/- for 1700 litres of petrol consumed and Rs50,000 for kerosene OBM for 2000 litres of kerosene consumption. From 2016, the maximum consumption is enhanced from 1700 litres to 2000 litres, Official Gazette Series 1, No 18, August, (2016).

Table 4: Financial Assistance for Purchase of Fuel (Kerosene/Petrol) to the Fishermen for operation of Out Board Motors

| Details | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Total |
|-------------------------|---------|---------|---------|---------|---------|
| Value (Rs in Lakhs) | 499.80 | 576.75 | 469.93 | 638.96 | 2185.44 |
| Number of Beneficiaries | 1010 | 1176 | 1155 | 2204 | 5545 |

Source: Compiled by Researchers, from the raw data of Directorate of Fisheries, Govt, Goa

The above table 4, shows that the traditional fishermen are happy with the fuel subsidy as it helps them to reduce their cost of fuel to some extent. The amount received as subsidy by each beneficiary was Rs 49,485 in 2012-13, Rs 49,043 in 2013-14, Rs 40,687 in 2014-15, and Rs 28,990 in 2015-16.

v) Financial assistance for replacement of old kerosene Outboard to petrol Outboard Motor:

This scheme was introduced in the year 2013 under which the government provided fishermen subsidy on replacement of old kerosene OBM to 2-stroke/4-stroke petrol OBM to the extent of 98%.

Table 5: Replacement of old kerosene OBM to petrol OBM

| Details | 2013-14 | 2014-15 | 2015-16 | Total |
|-------------------------|---------|---------|---------|---------|
| Value (Rs in Lakhs) | 206.65 | 469.93 | 447.69 | 1124.27 |
| Number of beneficiaries | 176 | 408 | 389 | 973 |

Source: Compiled by Researchers, from the raw data of Directorate of Fisheries, Govt, Goa

In 2013-14, each beneficiary received financial assistance of Rs 1,17,414, in 2014-15 Rs 1,15,179, Rs 1,15,087 to replace old kerosene OBM to petrol OBM.

vi) Financial assistance to fishermen for purchase of fisheries requisites (Gill nets with accessories):

This scheme was introduced by the government in 1998 under which the beneficiary will be entitled for subsidy upto 50% of the actual cost limited to Rs 30,000 to purchase gill nets with accessories after every 4 years.

Table 6: Financial Assistance to purchase gill net and other accessories

| Details | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Total |
|-------------------------|---------|---------|---------|---------|-------|
| Value (Rs in Lakhs) | 11.78 | 13.40 | 16.33 | 14.84 | 56.35 |
| Number of Beneficiaries | 50 | 50 | 56 | 50 | 206 |

Source: Compiled by Researchers, from raw data of Directorate of Fisheries, Government, Goa

The amount received per beneficiary in 2012-13 was Rs 23,560, Rs 26,800 in 2013-14, Rs 29,161 in 2014-15 and Rs 29,680 in 2015-16 to purchase gill nets.

vii) Interest subsidy scheme on loans for agriculture and allied activities: Under this scheme fishermen can avail loan upto Rs 5.00 lakhs and avail subsidized interest on loan @4% interest to purchase canoe, outboard motors, fishing nets, fish finders, fish holds, GPS for fishing vessels, modification of vessels. The balance interest exceeding 4% is borne by the Government, Official Gazette Series 1 No. 26, September, (2016)

Table 7: Interest Subsidy on loans for Fisheries and Allied Activities

| Details | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Total |
|-------------------------|---------|---------|---------|---------|-------|
| Value in Rs in Lakhs | 24.98 | 21.34 | 18.18 | 12.99 | 77.49 |
| Number of Beneficiaries | 10 | 197 | 171 | 101 | 479 |

Source: Compiled by Researchers from the raw data of Directorate of Fisheries, Government, Goa

During the year 2012-13 each beneficiary received towards loan an amount of Rs 249,800, in 2013-14 Rs 10832, in 2014-15 Rs 10,632 and in 2015-16 Rs 12,861.

viii) Financial assistance for supply of insulated boxes: The Government has introduced this scheme to the traditional and mechanized fishermen with the sole aim to create an awareness of hygiene among the fishermen in particular and public in general, and preserve the fish in fresh condition.

Table 8: Supply of Insulated boxes to Fisher Persons

| Details | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Total |
|-------------------------|---------|---------|---------|---------|-------|
| Value (Rs in Lakhs) | 7.48 | 9.80 | 4.96 | 16.89 | 39.13 |
| Number of Beneficiaries | 143 | 291 | 420 | 504 | 1358 |

Source: Compiled by Researcher, from raw data of Directorate of Fisheries, Govt, Goa

The amount spent by the government towards the beneficiary was Rs 5230 in 2012-13, Rs 3367 in 2013-14, Rs 1180 in 2014-15, Rs 3351 in 2015-16.

ix) Financial assistance for purchase of life jackets and lifebuoys for the fishing vessels: This scheme was introduced by the government in April 2011 with the objective to grant relief to the fishermen at sea, by providing safety measures to protect their lives, during rough sea/cyclonic storms. The state government has made it mandatory for all fishing vessels to carry life jackets, lifebuoys, Official, Gazette, Series 1, No.44,(2011).

Table 9: Financial Assistance for Purchase of Safety Jackets & Life Buoys for the fishing vessel

| Details | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Total |
|-------------------------|---------|---------|---------|---------|-------|
| Value (Rs in Lakhs) | 8.28 | 0.99 | 7.83 | 8.46 | 25.56 |
| Number of Beneficiaries | 88 | 1 | 8 | 185 | 282 |

Source: Compiled by Researchers, from raw data of Directorate of Fisheries, Govt, Goa

The amount received per beneficiary was Rs 9409 in 2012-13. However, in 2013-14 only one beneficiary applied so he received entire amount of Rs 99,000, in 2014-15 each beneficiary received an amount of Rs 97,875 and 2015-16 Rs 4573 was received to purchase safety jackets and life buoys.

x) Financial assistance for purchase of power block: This scheme was started in 2013 through which government assists financially the mechanized purseine vessels owners by providing power blocks to the extent of 25% of the cost limited to Rs 1,50,000 once in their life time.

Table 10: Financial Assistance for purchase of Power Blocks

| Details | 2014-15 | 2015-16 | Total |
|-------------------------|---------|---------|-------|
| Value in Rs in Lakhs | 8.73 | 10.92 | 19.65 |
| Number of Beneficiaries | 7 | 8 | 15 |

Source: Compiled by Researchers, from raw data of Directorate of Fisheries, Govt, Goa

Financial Assistance for purchase of Power Blocks availed per mechanized trawler and purse-seiners is Rs 124,714 in 2014-15 and Rs 136,500 in 2015-16.

xi) Financial assistance on Goa value added tax based subsidy on high speed diesel oil consumed by fishing vessels: The government of Goa grants subsidy on VAT reimbursement on high speed diesel oil for mechanized fishing vessels with 3 cylinders engine upto maximum quantity of 15,000 lts, 4 cylinder vessels 20,000 lts and 6 cylinder vessels 30,000 lts per fishing season of 10 months. (Official Gazette, Notification, 10/3/2016).

Table 11: Financial assistance on Goa value added tax based subsidy on high speed diesel oil consumed by fishing vessels

| Details | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Total |
|-------------------------|---------|---------|---------|---------|---------|
| Value(Rs in Lakhs) | 1039.87 | 1463.73 | 1499.97 | 1379.92 | 5383.49 |
| Number of Beneficiaries | 675 | 662 | 679 | 680 | 2696 |

Source: Compiled by Researchers, from raw data of Directorate of Fisheries, Govt, Goa

The number of mechanized trawlers and purse-seiners claiming this subsidy has increased over the years. The amount paid for reimbursement of VAT diesel subsidy per beneficiary was Rs 154,054 in 2012-13, Rs 221,143 in 2013-14, Rs 220,909 in 2014-15 and Rs 202,929 in 2015-16.

II) Welfare schemes

i) Saving cum relief scheme: This is a centrally sponsored scheme started in 2004 and its objective is to provide relief to the fishermen during lean season. Beneficiary should be below poverty line, between 18-60 years and contribute Rs 100 for 9 months and the centre and state government contribute Rs 1800 on 50:50 basis. An amount of Rs 2700 is given to the fishermen in three equal monthly installment of Rs 900 each during lean season.

Table 12: National Welfare Fund for Fishermen (Saving Cum Relief fund)

| Details | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Total |
|-------------------------|---------|---------|---------|---------|--------|
| Value in Rs in Lakhs | 66.06 | 35.19 | 102.73 | 93.55 | 297.53 |
| Number of Beneficiaries | 5265 | 5860 | 5707 | 5197 | 22029 |

Source: Researchers compilation from raw data of Fisheries department, Goa

The above table shows that the number of beneficiaries who contribute towards this scheme is varying every year. The amount disbursed during the lean season per beneficiary was Rs 1154 in 2012-13, Rs 600 in 2013-14, Rs 1800 in 2014-15 & 2015-16.

ii) Group accident insurance scheme for active Fishermen: This scheme is implemented for the benefit of active fishermen below poverty line in the age group of 18-70 years by providing insurance cover to the fishermen who are prone to accidents at sea due to rough weather and other natural calamities.

Table 13: National Welfare Fund for Fishermen (Group Accident Insurance Scheme for Active Fishermen)

| Details | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Total |
|-------------------------|---------|---------|---------|---------|-------|
| Value in Rs in Lakhs | 4.14 | 1.91 | 1.19 | 2.39 | 9.63 |
| Number of Beneficiaries | 12727 | 12721 | 11747 | 11840 | 49035 |

Source: Researchers compilation from raw data of Fisheries department, Goa

The above table shows that the government has invested on premium per beneficiary in 2012-13, Rs 32.5, Rs 15 in 2013-14, Rs 10 in 2014-15 & Rs 20 in 2015-16 towards the fund.

iii) Fishermen corpus Fund: The corpus fund was established by the Government of Goa in 2013 to give financial relief to the fishermen on account of loss of life/ total disability/partial disability and loss/ damage of fishing vessel due to natural calamity like floods cyclone, tsunami, accident fire. The contribution per annum for fishermen working on the fishing vessel/canoe is Rs 200 per fishermen and crew. Fishing canoe without

OBM contribute Rs 1,000 per fishing canoe, with OBM contribute Rs 2,000, 1-4 cylinder fishing vessel contribute Rs 7,000 and 6-8 cylinder fishing vessel contribute Rs 10,000 per annum. The amount has to be contributed for five years only.

iv) Natural calamity relief to fishermen: This scheme has been introduced under the Fishermen Corpus fund, to give financial relief to fishermen due to natural calamity. All active fishermen who contribute to the Fishermen Corpus Relief Fund shall be eligible for financial assistance.

Table 14: Relief for Phyan Cyclone Victims

| Details | 2012-13 | 2013-14 | 2014-15 | Total |
|-------------------------|---------|---------|---------|-------|
| Value (Rs in Lakhs) | 7.50 | 2.00 | 0.50 | 10.00 |
| Number of Beneficiaries | 20 | 4 | 1 | 25 |

Source: Researchers compilation from raw data of Fisheries Department, Goa

This phyan relief was given by the government when the cyclone took place in Goa in 2013. The phyan victims received Rs 37,500 per beneficiary in 2012-2013, Rs 50,000 in 2013-14, Rs 50,000 in 2014-15.

v) General Insurance scheme for Active Fishermen: The insurance premium of Rs.200/- shall be paid by the Government and by the Life Insurance Company on 50:50 basis. The government will give compensation to the fishermen in the event of death by accident or partial/total permanent disability while carrying out fishing activities.

Table 15: General Insurance Scheme for Active Fishermen

| Details | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Total |
|-------------------------|---------|---------|---------|---------|--------|
| Value Rs in Lakhs | 511 | 533.8 | 573 | 574 | 2191.8 |
| Number of Beneficiaries | 5110 | 5338 | 5735 | 5733 | 21916 |

Source: Researchers compilation from raw data of Fisheries department, Goa

The government has contributed Rs 100 per year per beneficiary.

vi) Development of model fishermen village (Housing): This scheme has been introduced to uplift the traditional fishermen community involved in fishing activities to construct their new house/renovate the kacha structure. Beneficiary will be eligible for the financial assistance of Rs 75,000/- the once in their life time.

Table 16 : National Welfare fund for Development of Fishermen village Housing

| Details | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Total |
|-------------------------|---------|---------|---------|---------|-------|
| Value (Rs in Lakhs) | 1.50 | 0.75 | 1.50 | 0.75 | 4.50 |
| Number of Beneficiaries | 3 | 2 | 5 | 3 | 13 |

Source: Researchers compilation from raw data of Fisheries department, Goa

In the year 2012-13 each beneficiary received Rs 50,000, Rs 37,500 in 2013-14, Rs 30,000 in 2014-15 and Rs 25,000 in 2015-16 for construction and renovation of house.

vii) Financial Assistance to Registered Fishermen Societies/ Associations: This scheme was started since 2012 under which All Fishermen Societies/Associations registered under the Co-operative Societies Act shall be eligible for Financial Assistance every year to the extent of Rs.50,000/- (Rupees fifty thousand only) as Grant-in-aid.

Table 17: Financial Assistance to Registered Fishermen Societies/ Associations

| Details | 2013-14 | 2014-15 | 2015-16 | Total |
|-------------------------|-------------|-------------|-------------|--------------|
| Value in Rs in Lakhs | 3.50 | 2.00 | 0.50 | 6.00 |
| Number of Beneficiaries | 7 societies | 4 societies | 1 societies | 12 Societies |

Source: Authors/Researchers compilation from raw data of Fisheries department, Goa

The Government provided Rs 50,000 per year to each society/associations for its functioning.

Physical and Financial Achievement of Government schemes/ subsidies

The below table 18 and 19 shows the Physical and Financial Achievement of Government schemes/ subsidies of top ten subsidies classified as popularly availed, and remaining 9 classified as least preferred subsidies out of total 19 subsidies from 2012-2016 availed by traditional and mechanized fishing community in Goa.

Table 18: Financial achievement of Government schemes/ subsidies from 2012-2016 of top ten

| Name of the scheme | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Total |
|--|--------------------|--------------------|--------------------|--------------------|-----------------|
| 1. Financial Assistance on Goa Value Added Tax (VAT) based on subsidy | 1039.87 (45.27) | 1463.73 (49.88) | 1499.97 (43.67) | 1379.92 (41.50) | 5383.49 |
| 2. General Insurance Scheme for Active Fishermen | 511.00 (22.55) | 534.00 (18.19) | 573.5 (16.70) | 573.3 (17.24) | 2191.80 |
| 3. Financial Assistance for Purchase of Fuel (Kerosene/Petrol) to the Fishermen for operation of OBM | 499.80 (21.75) | 576.25 (19.63) | 469.93 (13.68) | 639.46 (19.22) | 2185.44 |
| 4. Replacement of old kerosene OBM to petrol OBM | 0.00 NA | 206.65 (7.04) | 469.93 (13.68) | 447.69 (13.46) | 1124.27 |
| 5. National Welfare Fund for Fishermen (Saving Cum Relief fund) | 66.06 (2.88) | 35.19 (1.19) | 102.73 (3) | 93.55 (2.81) | 297.53 |
| 6. Safety of Fishermen at Sea | 73.35 (3.19) | 6.14 (0.21) | 159.37 (4.64) | 40.66 (1.22) | 279.52 |
| 7. Construction of wooden / FRP canoe | 29.93 (1.30) | 58.94 (2) | 66.45 (1.94) | 54.22 (1.63) | 209.54 |
| 8. Tribal sub Plan for Schedule Tribe Development Scheme | 22.00 (0.96) | 20.00 (0.68) | 46.27 (1.35) | 51.76 (1.56) | 140.03 |
| 9. Financial Assistance for purchase of OBM | 29.93 (1.30) | 12 (0.41) | 28.20 (0.82) | 31.80 (0.96) | 101.93 |
| 10. Interest Subsidy on loans for Fisheries and allied activities | 24.98 (1.09) | 21.34 (0.72) | 18.18 (0.53) | 12.99 (0.39) | 77.49 |
| Total | 2296.92 | 2934.24 | 3434.53 | 3325.35 | 11991.04 |

Source: Researchers Compilation from the raw data of Fisheries, Department, Goa

(Figures in brackets denote percentages).

Most Popularly availed schemes

- Government spending on Financial Assistance on Goa Value Added Tax (VAT) based on subsidy is the highest among all other subsidies. This subsidy is availed by majority mechanized trawlers/purseiners in Goa and the main reason to avail this diesel subsidy is that fuel forms the highest cost of operation and it helps the fishermen to reduce a major part of their variable

- cost of operation by availing this subsidy. The Government provides this scheme to fishermen only on two trawlers or purseiners.
- b) This scheme of General Insurance Scheme for Active Fishermen has been availed by a large number of beneficiaries in Goa. Every year the government deducts compulsorily Rs 200 per employee under corpus fund, out of which Rs 100 is invested per employee in general insurance scheme.
 - c) Financial Assistance for Purchase of Fuel (Kerosene/Petrol) to the Fishermen for operation of Out Board Motors is availed only by traditional motorised canoes. This scheme has very good response as it helps them to reduce the operational cost on fuel.
 - d) Replacement of old kerosene OBM to petrol OBM was availed by many motorized canoe owners, wherein they claimed subsidy to replace kerosene motor with petrol motor since 2013. Under this scheme, fishermen using 8 horsepower motor paid Rs 33,000 as own money and government gave subsidy of Rs 1, 00,000. In case of fishermen using 9.9 horsepower motor, the cost of motor is Rs 151000, fishermen received subsidy of Rs 118000 as subsidy and Rs 33,000 was their own money.
 - e) National Welfare Fund for Fishermen (Saving Cum Relief fund) also has increased for the last 4 years. From 2016 onwards this scheme is only for BPL fishermen.
 - f) Safety of Fishermen at Sea had low response in 2013-14, and 2015-16 as less beneficiary purchased safety equipment's. Under this scheme the fishermen get 75% subsidy from the government to purchase safety equipments only after 5 years. \
 - g) Financial Assistance for Purchase of OBM has increased over the years. It was highest in 2013-14, as many canoe owners purchased new outboard motors.
 - h) The Construction of wooden /FRP canoe subsidy has increased over the years wherein Rs 60,000 is received by the beneficiaries.
 - i) Tribal sub Plan for Schedule Tribe Development Scheme has been availed by many Schedule Tribe fishermen for construction of house. It is showing an increasing trend.
 - j) Interest Subsidy on loans for Fisheries and Allied Activities under which fishermen can avail interest @ 4% upto Rs 5,00,000 after every 5 years has decreased over the years, due to lack of awareness of the scheme as well as some fishermen are not interested in obtaining loan due to payment of interest, but prefer to borrow from relatives/friends/fishing agents where they do not have to pay interests.

Table 19: Financial achievement of Government schemes/ subsidies from 2012-2016 of Least preferred subsidies by the fishermen in Goa (Rs in lakhs)

| Name of the scheme | 2012-13 | 2013-14 | 2014-15 | 2015-16 | Total |
|--|------------------|------------------|------------------|------------------|---------------|
| 11. Financial Assistance to Fishermen for purchase of Fishery Requisites | 11.78 (28.97) | 13.10 (33.50) | 14.89 (26.99) | 14.84 (23.08) | 54.61 |
| 12. Supply of Insulated boxes to Fisher Persons | 7.48 (18.38) | 9.80 (9.80) | 4.96 (8.99) | 16.89 (26.27) | 39.13 |
| 13. Financial Assistance to Brackish water Aquaculture Farm | NA N.A | 1.71 (4.37) | 13.56 (24.57) | 10.73 (16.69) | 26.00 |
| 14. Financial Assistance for Purchase of Safety Jackets & Life Buoys for the fishing vessel | 8.28 (20.35) | 0.99 (2.53) | 7.83 (14.19) | 8.46 (13.15) | 25.56 |
| 15. Financial Assistance for purchase of Power Blocks | NA | NA | 8.74 (15.84) | 10.92 (16.98) | 19.66 |
| 16. National Welfare Fund for Fishermen (Group Accident Insurance Scheme for Active Fishermen) | 4.14 (10.17) | 7.25 (18.50) | 1.19 (2.15) | 1.2 (1.87) | 13.78 |
| 17. Relief for Phyan Cyclone Victims | 7.50 (18.43) | 2.00 (5.11) | 0.50 (0.90) | NA NA | 10.00 |
| 18. Financial Assistance to Registered Fishermen Societies/ Associations | NA | 3.50 (8.95) | 2.00 (3.63) | 0.50 (0.77) | 6.00 |
| 19. National Welfare fund for Development of Fishermen village Housing | 1.50 (3.68) | 0.75 1.92) | 1.50 (2.72) | 0.75 (1.17) | 4.50 |
| Total | 40.68 | 39.1 | 55.17 | 64.29 | 199.24 |

Source: Researchers Compilation from the raw data of Fisheries, Department, Goa
(Figures in brackets denote percentages).

The above table 19 shows the schemes least preferred by fishermen. Financial Assistance to Fishermen for purchase of Fishery Requisites ie gill net has increased over the years. This subsidy can be availed upto maximum amount of Rs 30,000 after every four years. This amount is very less as compared to the cost of one gill net which ranges between 150,000-5, 00,000. The Supply of Insulated boxes to Fisher Persons also has

varied over the years. Till 2014-15 government provided subsidy of 75% of the cost limited to Rs 3000 to the traditional fishermen and Rs 4,000 to the mechanized fishing vessels with 6 cylinders on insulated boxes. However, it was highest in 2015-16 as these were supplied free of cost by the government to the fishermen.

Table 20 showing percentage of grant to total GSDP (GSDP at factor cost at constant prices 2004-05)

| Year | Total GSDP (Rs in lakhs) | Total grant (Rs in lakhs) | Percentage | Per capita subsidy |
|---------|-----------------------------|------------------------------|------------|-----------------------|
| 2012-13 | 2817312 | 2336.90 | 0.08 | 0.07 |
| 2013-14 | 3034536 | 2973.34 | 0.09 | 0.13 |
| 2014-15 | 3258173 | 3489.70 | 0.10 | 0.11 |

Source: Researchers Compilation from the raw data of Fisheries, Department, Goa & Goa's Economic Survey, & CMFRI, Marine Census 2010

Table 20 shows that the percentage of government grant to total GSDP towards the fisheries subsidies in Goa has increased over the years, However, the per capita subsidy to the total grant shows a variable trend.

Conclusion

From the study it is evident that maximum beneficiaries have availed scheme fuel subsidy and general insurance scheme. The government gives the awareness of all the schemes to the fishermen through co-operative societies and associations. However, certain schemes are not availed by many fishermen in Goa, lack of time as the traditional fishermen are personally involved in fishing operations, too many government formalities, paper work and documentation. Some of the schemes are not disbursed on time due to the paucity and availability of the funds by the government. None of the marine fisheries schemes are designed to promote sustainable fisheries thereby reducing overexploitation, except the Blue revolution schemes implemented in 2016 has focused its attention on sustainability and conservation. There is a need for the government to have consultation with the stakeholders as a key requirement for ensuring that the architecture of these schemes meet the objectives. Policy intervention is necessary to ensure monitoring of the subsidies provided to the fishermen to ensure long term sustainability as well as nutritional security.

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