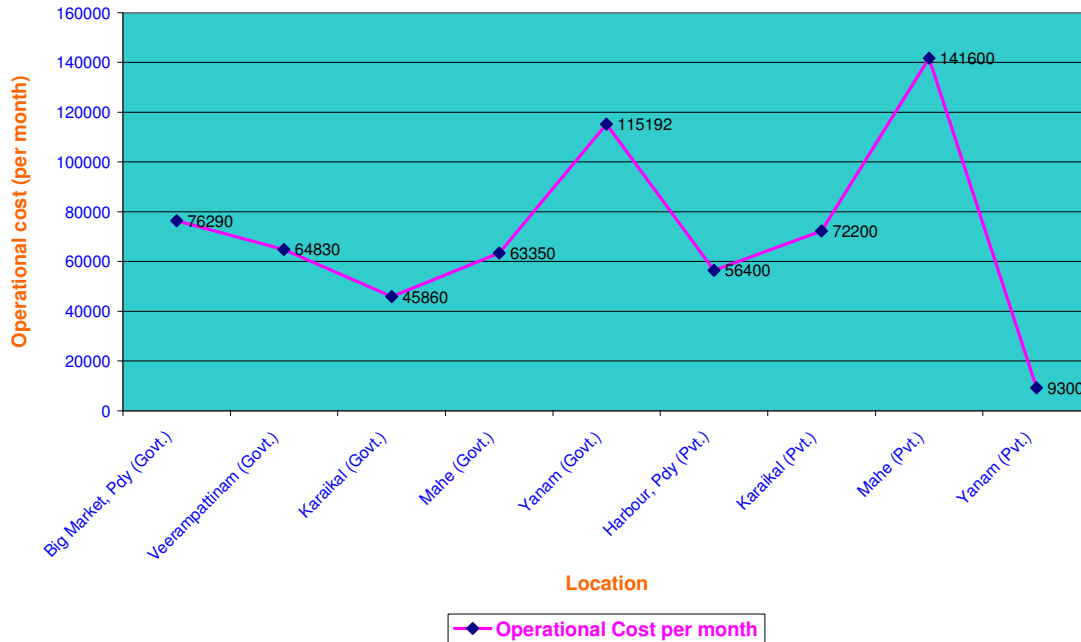




**GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF ECONOMICS AND STATISTICS**

**REPORT ON COST STUDY OF
ICE PLANTS AND ICE CRUSHING UNITS
(OPERATIONAL COST ONLY) OF
THE DEPARTMENT OF
FISHERIES AND FISHERMEN WELFARE
IN THE U.T. OF PUDUCHERRY**

**Comparison of Operational cost of Govt. & Private Ice Plants
(for one month in ₹)**





GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF ECONOMICS AND STATISTICS
PREFACE

As per the instructions of the Chief Secretary, a cost study of the Ice Plants and Ice Crushing Units of the Department of Fisheries and Fishermen welfare in the U.T of Puducherry has been undertaken. The study has been restricted to the operational cost only.

All the Ice Plant Units in Puducherry , Karaikal, Mahe and Yanam regions established by the Department of Fisheries and Fishermen Welfare were visited by a team of Officers to study the operational cost . Further, one private Ice Plant in each region was also inspected to compare the cost with market price. The operational cost of the ice plant for one month has been arrived at by taking into various factors like Staff Salary, Electricity Consumption, Water consumption, raw materials required for production like Ammonia Gas, Salt etc.,.

The operational cost per kg of Ice is the maximum in Mahe whereas the sale price of one kg of Ice is also the minimum in Mahe. Further, the operational cost per kg of Ice in Government owned Ice Plants is more that that of Private Ice Plants for the reasons that employment generation is more in Government Sector and infrastructure development is also more in Government which is only asset creation. A detailed study of the Ice Plants and the suggestions are given in the report for compliance.

I hope that this study will be useful for the Department of Fisheries and Fishermen welfare.

S.VAITTIANADANE
DIRECTOR

Puducherry
November, 2010.

GOVERNMENT OF PUDUCHERRY
DIRECTORATE OF ECONOMICS AND STATISTICS

Sub: DES – Report on Conduct of Cost Study of Ice Plants and Ice Crushing Units of Department of Fisheries and Fishermen Welfare - Reg.

As per the instructions of the Chief Secretary, a study on the operational cost of the Ice Plants and Ice Crushing Units of the Department of Fisheries and Fishermen Welfare in Puducherry, Karaikal, Mahe and Yanam has been conducted by the Directorate of Economics and Statistics, Puducherry. The study has been restricted to operational cost only as per the instructions of the Chief Secretary.

The Chief Secretariat (Fisheries), Govt. of Puducherry has issued G.O. Rt. No. 15/FY dt. 29-03-2010 revising selling prices of Ice and Cold Storage to Fishermen and Non-Fishermen as follows:

Sl. No.	Region	Sale price of Ice		Cold storage charges	Ice crushing charges
		Fishermen	Non-Fishermen		
1.	Puducherry	80 paise/Kg + S.T extra	85 paise/Kg + S.T extra	60 paise/Kg for 24 Hrs or part thereof	6 paise /kg or part thereof
2.	Karaikal	80 paise/Kg + S.T extra	85 paise/Kg + S.T extra	60 paise/Kg for 24 Hrs or part thereof	6 paise /kg or part thereof
3.	Mahe	50 paise/Kg + S.T extra	55 paise/Kg + S.T extra	30 paise/Kg for 24 Hrs or part thereof	6 paise /kg or part thereof
4.	Yanam	60 paise/Kg + S.T extra	65 paise/Kg + S.T extra	50 paise/Kg for 24 Hrs or part thereof	7 paise /kg or part thereof

The Ice Plants located in the Big Market and at Veerampattinam and the Ice Crushing unit located in the Sinna Kadai Market were visited by a team of Officers/ Officials headed by the Joint Director (I) of this Directorate on 28-09-2010. The Ice Plant and the Ice crushing unit located in Karaikal region were inspected on 12-10-2010 for the study. The Ice Plants and the Ice Crushing Units in Mahe and Yanam regions were also inspected on 20-10-2010 and 27-10-2010 respectively. The details of the operational cost of the plants were collected .

PUDUCHERRY AND KARAIKAL REGIONS

The details of the Ice Plants at Big Market and Veerampattinam in Puducherry region and the Ice Plant at Karaikal and the Ice Crushing units at Sinna Kadai Market and at Karaikal are as follows:

Sl. No.	Particulars	Ice Plant at Big Market	Ice Plant at Veerampattinam	Ice Plant at Karaikal
1.	Year of Installation	1967	1987	1971
2.	Cost of the equipment (in ₹)	1,33,317/-	2,61,300/-	63,500/-
3.	Capacity of the Plant	3 Tonne	3 Tonne	3 Tonne
4.	Sanctioned Staff strength in the Unit	6 (Supervisor-1, Operator-2, Ice Man-2, Watchman-1)	6 (Supervisor-1, Operator-2, Ice Man-2, Watchman-1)	6 (Supervisor-1, Operator-2, Ice Man-2, Watchman-1)
5.	No. of staff at present working	4	4	2
6.	Total salary of the staff for one month (Sept. 2010) (in ₹)	60000	60000	39000
7.	Power Consumption for one month (in ₹)	14000	3480	5100
8.	Water Consumption for one month (in ₹)	1450	1200	1400
9.	Production during Sept. 2010 (in Kg)	64900	9650	25050
10.	Sales during Sept. 2010 (in Kg.)	64350	9500	25000
11.	Sale price per bar of Ice 50 Kg. (in ₹)	40 + S.T (4%)	40 + S.T (4%)	40 + S.T (4%)
12.	Total collection during Sept. 2010 (Excluding Tax) (in ₹)	51480	7600	21465
13.	Other raw materials used in the production			
	i. Ammonium Gas (per month) (in ₹)	90	50	60
	ii. Salt (per month) (in ₹)	750	100	300

The operational cost of the Ice plants for one month is arrived at taking into consideration factors like staff salary, electricity consumption, water consumption, raw materials like ammonia gas, salt and others. The reference period has been taken as September, 2010 except for Mahe for which the reference period has been taken as April, 2010 since the Ice Plant is under repair from May, 2010.

- ❖ The operational cost of the Ice plant at Big Market Puducherry for one month = ₹ 76290
- ❖ The operational cost of the Ice plant at Veerampattinam for one month = ₹ 64830
- ❖ The operational cost of the Ice plants at Karaikal for one month = ₹ 45860

All the Govt. owned Ice plants are selling one bar of Ice of 50 Kg. at ₹ 40.00 + Sales Tax of 4% i.e. at the rate of 80 paise per Kg.

To compare the cost of Ice plants owned by the Govt. with that of the private, the private Ice plants at Ariankuppam and Harbour in Puducherry Region and the private Ice plant at Karukalacherry Road in Karaikal Region were also surveyed. The Ice plant at Ariankuppam is having a capacity of 8 tonnes whereas the Ice plants at Harbour at Karaikal was having 10 tonne capacity.

The selling rate of one bar of Ice of 50 Kg. varies from ₹ 50 to ₹ 70 depending upon the demand and season. The cost includes crushing charges for private plants. The private plants are employing only one or two persons to look after the production, sales and crushing. The salary of the employed person varies from ₹ 5000 to ₹ 7000 per month. Hence the operational cost of the private Ice plants is much more less than that of the Govt. Ice plants. The sale price and the crushing charges of Govt. and Private Ice plants are as follows:

Item	Govt. Ice Plants	Private Ice Plants
Sale Price of Ice (50 Kg.)	₹ 40 + Tax (4%)	₹ 50 to ₹ 70
Crushing Charges	6 paise per Kg.	Nil

For the purpose of comparing the operational cost of the Government owned Ice Plants with that of the Private Ice plants, the Private Ice Plant at Harbour, Puducherry and the private Ice Plant at Karaikal were also surveyed and the details of the ice plants are as follows:

Sl. No.	Particulars	Private Ice Plant at Harbour, Puducherry	Private Ice Plant at Karaikal
1.	Capacity of the Plant	10 Tonne	10 Tonne
2.	No. of staff at present working	2 (one per shift)	2 (one per shift)
3.	Total salary of the staff for one month (Sept. 2010) (in ₹)	10000	10000
4.	Power Consumption for one month (in ₹)	36000	42000
5.	Water Consumption for one month (in ₹)	2500	5000
6.	Production during Sept. 2010 (in Kg)	112500	150000
7.	Sales during Sept. 2010 (Kg.)	112250	149500
8.	Sale price per bar of Ice 50 Kg. (in ₹)	55	50
9.	Total collection during Sept. 2010 (Excluding Tax) (in ₹)	123475	149500
10.	Other raw materials used in the production		
	i. Ammonium Gas (per month) (in ₹)	400	1200
	ii. Salt (per month) (in ₹)	3500	5000
11.	Miscellaneous expenditure (in ₹)	5000	10000

The total Operational cost of the Private Ice plant at Harbour, Puducherry for one month = ₹ 56,400

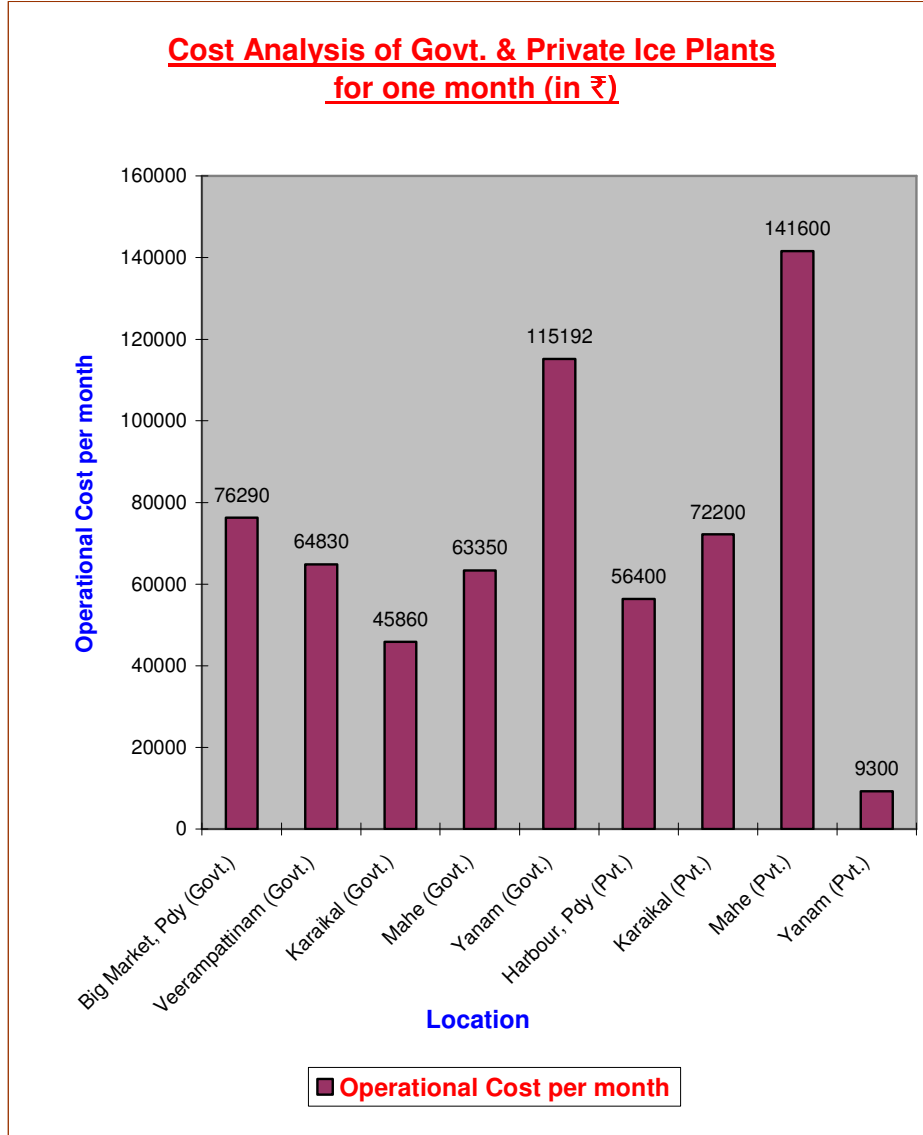
The total Operational Cost of the Private Ice plant at Karaikal for one month = ₹ 72, 200

MAHE AND YANAM REGIONS:

The Government Ice Plant at Mahe is not functioning since May 2010 due to leakage in Cooling Coil and steps have been taken to repair the same. Hence the details have been collected for the month of April, 2010 in respect of Ice Plant at Mahe. The details of the Ice Plants maintained by the Department of Fisheries and by Private at Mahe and Yanam regions are as follows

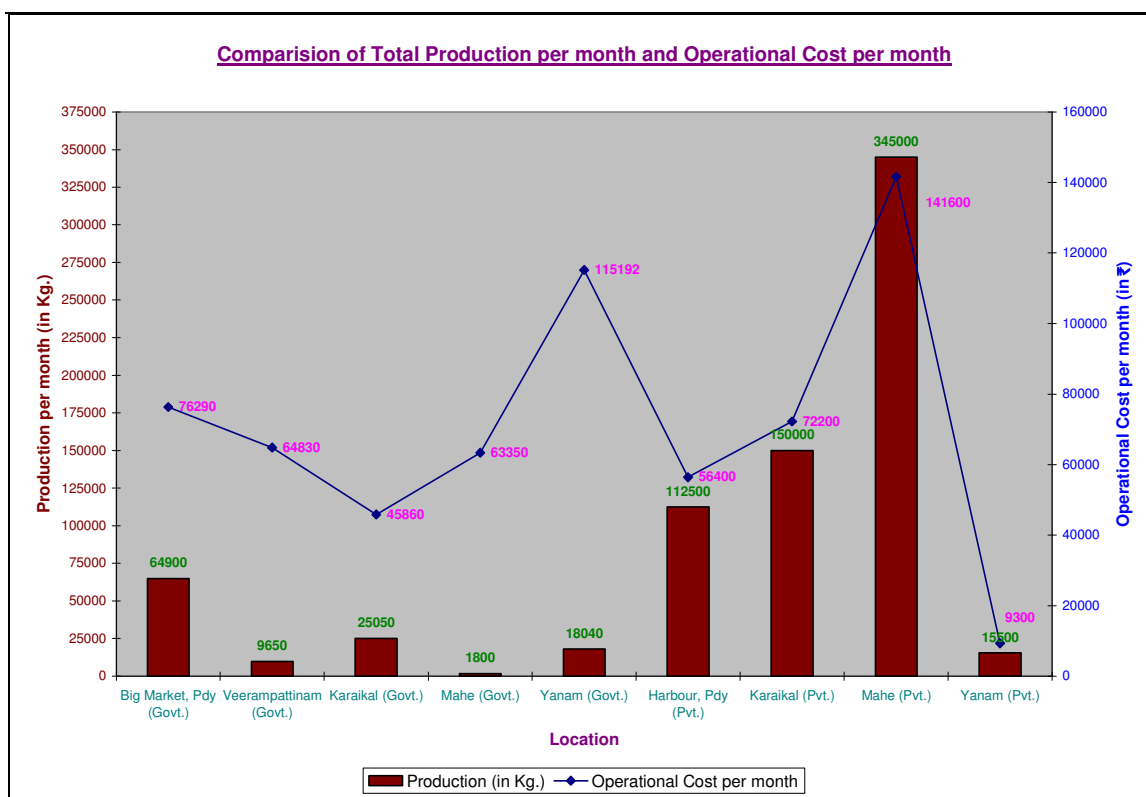
Sl. No.	Particulars	Govt Ice Plant at Mahe *	Private Ice Plant at Mahe	Govt Ice Plant at Yanam	Private Ice Plant at Yanam
1.	Capacity of the Plant (in Tonne)	2.5	25	3	7
2.	No. of staff at present working	3	4	6	2
3.	Total salary of the staff for one month (Sept. 2010) (in ₹)	51000	22000	94235	4000
4.	Power Consumption for one month (in ₹)	9880	85000	18357	3000
5.	Water Consumption for one month (in ₹)	1590	25000	35	300
6.	Production during Sept. 2010 (in Kg.)	1800	345000	18040	15500
7.	Sales during Sept. 2010 (in Kg)	1800	345000	18040	15500
8.	Sale price per bar of Ice 50 Kg. (in ₹)	25	50	30	40
9.	Total collection during Sept. 2010 (in ₹)	936	345000	11356	12400
10.	Other raw materials used in the production				
	i. Ammonium Gas (per month) (in ₹)	750	3100	750	300
	ii. Salt (per month) (in ₹)	130	3000	585	200
11.	Miscellaneous expenditure (in ₹)	0	3500	1230	1500
12.	Total Operational Cost for one month (in ₹)	63350	141600	115192	9300
13.	Total Production for one month (in Kg)	1800	345000	18040	15500
14.	Total operational cost for one Kg of Ice (in ₹)	35.19	0.41	6.39	0.60

*- Data for the Month of April, 2010 since the Plant is under repair from May, 2010.



The proposed selling rate of One Bar of Ice of 50 Kg is ₹ 25 in Mahe and ₹ 30 in Yanam Govt Ice Plants. After taking into the above factors, the operational cost per kg of ice for Govt ice plants at Puducherry, Karaikal, Mahe and Yanam and private Ice plants at the above regions are as follows:

Sl. No.	Region	Govt/Private	Total Production for one month (in Kg.)	Total operational cost for one month (in ₹)	Operational cost per kg of ice (in ₹)
(1)	(2)	(3)	(4)	(5)	(6)
1	Puducherry	Govt Ice Plant at Big Market	64900	76,290	1.18
2.	Puducherry	Govt Ice Plant at Veerampattinam	9650	64830	6.72
3.	Karaikal	Govt Ice Plant at Karaikal	25050	45860	1.83
4.	Mahe	Govt. Ice Plant at Mahe	1800	63350	35.19
5.	Yanam	Govt. Ice Plant at Yanam	18040	115192	6.39
6.	Puducherry	Private Ice Plant at Harbour	112500	56400	0.50
7.	Karaikal	Private Ice Plant at Karaikal	150000	72200	0.48
8.	Mahe	Private Ice Plant near Mahe (at Azhiyur, Kerala)	345000	141600	0.41
9.	Yanam	Private Ice Plant at Yanam	15500	9300	0.60



It is inferred from the above that the operational cost per kg of ice in Govt Ice Plants in Puducherry and Karaikal is almost twice the cost of the Private Ice plants due to the fact that the establishment cost like staff salary is much more in Govt than in Private. The operational cost per Kg of Ice in Govt Ice Plant in Mahe and Yanam is much more than the Private because of low production and high establishment costs.

After the thorough study the points / views noted by the team are:

- ❖ Though the capacity of the plants maintained by the Department of Fisheries is 3 tonnes per day the production is not optimum due to poor sales at Veerampattinam and Karaikal (of course, the sale at Main Market, Puducherry was reported good) for the following reasons
 - (a) Fishermen who require Ice bars in bulk quantity first go to private Ice plants who readily caters to the demand since the production capacity is more.
 - (b) Though the sale price was more in private plants the Fishermen / Other bonafide buyers get ice bars on credit basis the facility of which is not available in Govt.
 - (c) It was suggested by the Fishermen during the survey that if modern Ice Plant of the Government is established near the new fishing harbour, the sales will improve drastically.
 - (d) The cold storage units are not at all functioning in Puducherry and Karaikal regions. It was observed that there is demand for such unit at Main Market, Puducherry.
 - (e) Easy approach is noticed in the case of private ice plants and ice bars are supplied in bulk quantity on loan basis whereas access is not easy in case of Govt. Ice plants and also could not supply ice in bulk quantity and on credit.

The Ice crushing unit at Chinnakadai Market, Veerampattinam and Karaikal and at Yanam are functioning. The Department of Fisheries do not maintain separate account or expenditure (operational cost) for Ice crushing. The private Ice plants do not charge any amount for crushing separately and also other than a crushing machinery costing about Rs. 25000, no other separate account of expenditure on operating cost is maintained. Other than 2 minutes of running the crushing machine per ice bar of 50 Kg., other than power consumption no other cost was observed to be involved.

Govt. Ice Plant at Big Market, Puducherry



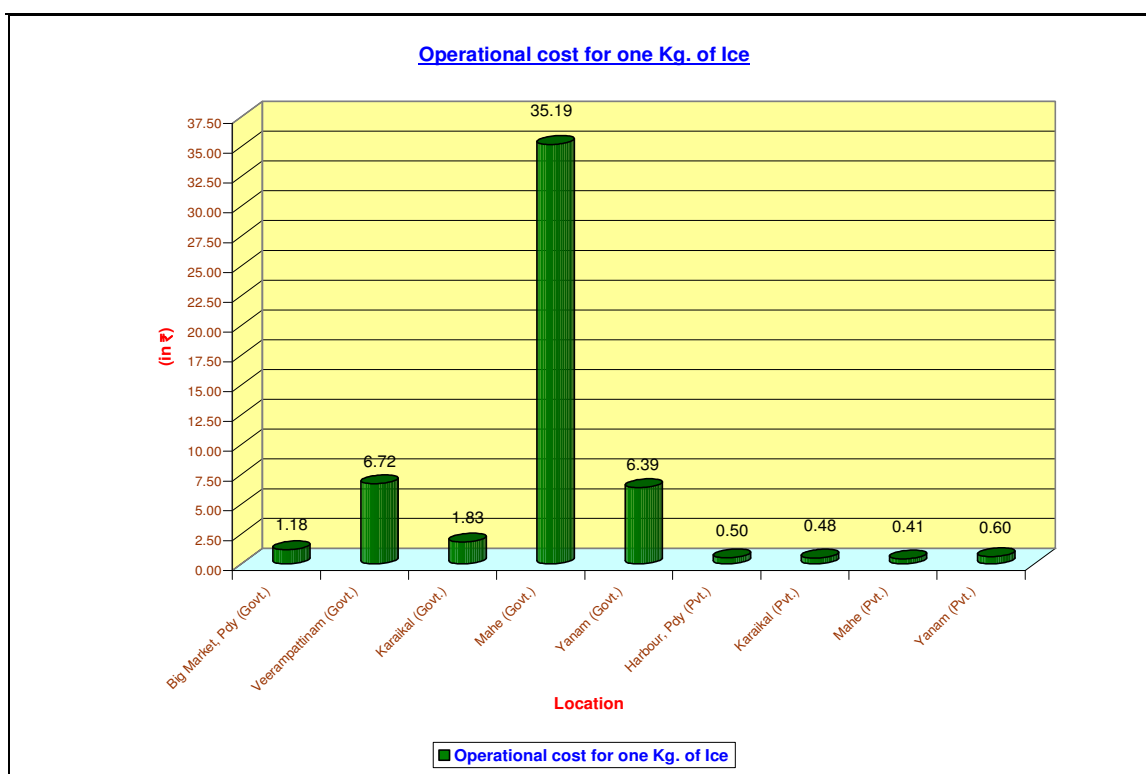
Govt. Ice Plant at Veerampattinam



In a nutshell, the following points are observed:

- (1) The operational cost per kg of ice for Govt ice plants at Puducherry, Karaikal, Mahe and Yanam and private ice plants at above places are as follows:

Sl. No.	Govt/Private	Operational cost per kg of ice (in ₹)
(1)	(2)	(3)
1	Govt. Ice Plant at Big Market	1.18
2.	Govt. Ice Plant at Veerampattinam	6.72
3.	Govt. Ice Plant at Karaikal	1.83
4.	Govt. Ice Plant at Mahe	35.19
5.	Govt. Ice Plant at Yanam	6.39
6.	Private Ice Plant at Harbour, Puducherry	0.50
7.	Private Ice Plant at Karaikal	0.48
8.	Private Ice Plant at Azhiyur (near Mahe)	0.41
9.	Private Ice Plant at Yanam	0.60



The operational cost per Kg. of Ice in case of Govt. Ice plants is more than the private Ice plants because establishment cost is much for Govt. plants.

- sale price per bar of ice 50 Kg may be increased to the tune of ₹ 2 to ₹ 3 in Puducherry and Karaikal and ₹ 5 in Mahe and ₹ 5 in Yanam regions from the present proposed rate for both Fishermen and Non-Fishermen.
- Since no study on operational cost has ever been done earlier, study may be conducted after 3 or 4 years and based on the study, the sale price may be revised accordingly.
- Ice Plants should be shifted as near as possible to fishing harbour.
- Ice plants should be modernized
- The Operational cost per kg of Ice in Mahe Ice Plant is more because production is very less and the establishment cost like staff salary and other expenditure is more
- Idea of extending sale of ice to registered societies / bodies / bonafide fishermen on credit basis may be considered to meet the challenge from private sector.
- Cold storage units need to be repaired and maintained properly.
- The Ice Plant and the Ice crushing unit at Mahe should be repaired on priority basis.
- In case of Ice crushing units, as submitted earlier the operational cost of the Ice crushing units could not be estimated separately since the electricity charges are accounted along with the charges for Ice plants.

Note: *In the G.O (No.15/FY dt 29-03-2010) issued by the Chief Secretariat (Fisheries) revising the selling Ice and Ice crushing charges, the rate quoted should be as follows. 80 paise/Kg. instead of 0.80 paise /Kg. Similar corrections should be made for other rates as well.*

